

# State of Practice and Policy Review

## Introduction

The State of Practice Review examines the current transportation safety planning practices employed by other Metropolitan Planning Organizations (MPOs) and local, county, and regional governments within Wisconsin. It also explores best practices from both domestic and international sources, reviewing essential guidance and resource documents that focus on planning and designing safe infrastructure with consideration of vulnerable road users.

## What are MPOs doing?

#### Hillsborough TPO Safe Streets Now Vision Zero Action Plan (2017)

- Through the Hillsborough Safe Streets Vision Zero initiative, the Hillsborough TPO is dedicated to creating safer streets for all road users and working towards the elimination of traffic fatalities and serious injury. The comprehensive safety approach focused on engineering solutions, education, enforcement, and collaboration to achieve meaningful improvements in road safety.
- The Vision Zero Action Plan and its High Injury Network (HIN) identified twenty high-crash corridors. Out of these corridors, eight (8) were funded for additional evaluation and feasibility analysis of proposed countermeasures. This effort was conducted in collaboration with Hillsborough County, and resulted in identifying proven, low-cost, high-impact safety designs that could be implemented quickly to accelerate safety benefits.
- Since the adoption of the Vision Zero Action Plan, the TPO has taken many implementation steps in road safety programming. The implementation of the Hillsborough TPO's safety values are reflected in their Speed Management Action Plan, Safe Access to Parks Study, and Tampa School Transportation Safety Study. The Speed Management Action Plan was particularly recognized for its implementation of strategies to address the significant number of severe crashes occurring on high-speed multi-lane limited-access arterials that intersect the urbanized area. Such strategies included developing traffic operations recommendations, establishing local street design guidelines, collaboration with law enforcement and stakeholders, policy review and recommendations, and more.



## **ONE MESSAGE, MANY VOICES**



#### Knoxville TPO Regional Roadway Safety Action Plan (2023)

- The Knoxville Regional TPO adopted its Regional Roadway Safety Action Plan in June 2023. The Action Plan aims to eliminate roadway injuries and fatalities, improve transportation safety for all users through well-coordinated and robust planning efforts, and provide technical assistance and data analysis to prioritize safety evaluations in underrepresented areas.
- The Plan centers on a 'Safe System Approach' which recognizes that humans will make mistakes and are vulnerable parties in crashes, and therefore focuses on creating a redundant and safe system that reduces the risk and severity of crashes. The City of Knoxville and Knox County were key partners in the process, and given the region's diverse land use context that encompassed both rural and urban contexts, crash profiles reflected both land use scenarios. This allowed for highlighting key crash causes that collectively targeted the areas with the highest concentrations of severe crashes. Crash profiles included roadway departure crashes in rural areas, and motor vehicle crashes in commercial areas.
- The Plan also identified specific corridors and intersections within the region where investments should be prioritized. Preliminary countermeasures and concepts were developed at these locations to guide future funding.
- Knoxville's Plan also developed a predictive analysis methodology that will allow a more proactive approach to crash data analysis in the region.
- With the adoption of its Regional Safety Action Plan, the TPO submitted for the 2023 SS4A Implementation Grant that was due on July 10, 2023.





#### CRASH PROFILE 1: MOTOR VEHICLE CRASHES IN COMMERCIAL AREAS

This factor analyzes crashes that resulted in death or serious injury that occurred within 200 feet of an area with commercial land use in the City of Knoxville.



Clinton Highway & Callahan Drive / Schaad Road

Strawberry Plains Pike & Region Lane

#### Maricopa Association of Governments (MAG) Safety Programs

- MAG's safety program looks to identify current and potential transportation-related safety issues, identify needs in the region, and determine strategies to address them through the MAG Regional Transportation Planning process.
- MAG's completed a Strategic Transportation Safety Plan (STSP) Safe System in Action, which was
  accepted in June 2021. Key components of the STSP included adopting of the Safe System approach,
  identifying locations and areas of opportunity, promoting use of high value safety countermeasures, and
  communicating safety as a shared language.

Strategy	Speed Management (automated enforcement, speed feedback signs)			
Action Area	Pedestrian			
Participants	MAG, Local Agency			
Funding Source	HSIP, RSP, GOHS, Local Agency			
Effectiveness	17% to 44% reduction in fatal crashes.			
Cost to Implement	\$100,000 automated enforcement; \$5,000 speed feedback sign (GOHS projects, ADOT HSIP projects)			
Implementation Schedule	As appropriate			
Performance Measures	Number of speed management countermeasures promoted.			

Four action areas

were developed from the plan which included pedestrians, intersections, lane departure crashes, and safety-related data.



#### 2021 Peer Exchange

- Results from peers in 2021 peer exchange from the Denver Regional Council of Governments (DRCOG), San Francisco Bay Area Metropolitan Transportation Commission (MTC), Portland Metro, and Delaware Valley Regional Planning Commission (DVRPC).
  - o <u>Summary document</u>

#### San Francisco Bay Area Metropolitan Transportation Commission (MTC) (2020)

- The MTC Planning Committee established a Regional Safety / Vision Zero Policy in June 2020. The policy establishes a region-wide policy to encourage and support actions towards eliminating traffic fatalities and serious injuries by the year 2030.
- The policy works with partner agencies, is data-driven, equity-focused, provides evidence-based policy, and includes education and engagement.
- Includes a Bay Area Vision Zero Working Group that is an MTC-led panel of officials working towards the shared goal of making the streets safer for all users.

#### Portland Metro

- Recently awarded 2.4 million for its Safe Streets for All Action Plan development.
- Previously completed a Regional Transportation Safety Strategy Plan in 2018. This included addressing three top findings for the region to make travel safety for all users:
  - Traffic deaths are increasing and disproportionately impacting people of color, low incomes, and over the age of 65.
  - Traffic deaths are disproportionately impacting people walking.
  - The majority of traffic deaths are occurring on a subset of arterial roadways.
- The plan implements the Safe System approach and focuses on six data-driven strategies to work towards the vision zero goal.

#### Delaware Valley Regional Planning Commission

- Recently awarded 1.47 million for its Regional Vision Zero 2050 Action Program.
- Previously completed a 2012 Safety Action Plan.

## What are other Agencies in Wisconsin doing?

#### Wisconsin's Highway Safety Plan (2022)

- The State of Wisconsin's Highway Safety Plan (HSP) mission is to reach zero fatalities on Wisconsin's roadways. The HSP is developed using the Wisconsin Strategic Highway Safety Plan as the principal planning document. The HSP goals are to maximize integration and utilization of data analysis resources, represent driver behavior issues and strategies, and utilize statewide safety committees to obtain input from traffic safety partners.
- The HSP planning process is circular and continuous. The plan includes nine state-level program areas. Each program area includes a performance review, which includes justification of need, sets performance measures, and identifies further program needs.



#### Wisconsin's Strategic Highway Safety Plan (2023 - 2027)

- The WisDOT Strategic Highway Safety Plan (SHSP) is a statewide comprehensive plan that provides the framework and strategic goals to help reduce fatalities, injuries, and crashes on Wisconsin roadways over a three-year time period.
- The data-driven plan included 11 emphasis areas, derived from 25 safety topics, to address potential hindrances or identify opportunities for process improvements to achieve safety goals. FHWA's Safe System Approach elements were identified within each emphasis area.
- Prioritizing safety goals and initiatives included bringing several safety partners together. This included WisDOT staff, local governments, the private sector, community organizations, law enforcement, and other state agencies. Additionally, the prioritization process involved an online survey and a virtual peer exchange.



#### WisDOT Highway Safety Improvement Program (HSIP)

- The HSIP program is intended to fund stand-alone safety projects on state and local roadways. Typically, the funding ratio is 90% federal and 10% local match.
- Applications are accepted annually and require a completed HSIP application form, sketch of the proposed project, crash diagram and crash history, site photos, itemized cost estimate, and a completed project evaluation factor (PEF) analysis worksheet.
- PEF calculations are used to assist in evaluating and comparing proposed projects.
- There is a subprogram as part of HSIP, and that is for High-Risk Rural Road projects. The focus of this subprogram is on local rural minor and major collector corridors, looking specifically at run-off-the-road crashes.



HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) PROJECT APPLICATION (continued) Wisconsin Department of Transportation DT1501

Desire ID				T-17					
Design ID				Tied Proj	ject IDs				
Related IDs									
(CONST)		(R/W)							
1. PROJECT LOCATION									
Name of Road/Intersection						Highwa	y Number		
County	City of		Village	of		Town o	of		
Name of the MPO the Project is Re	epresented by			-					
Is this project located on a connect	ing highway?	🗌 Yes 🔲 No							
Is this project part of a larger impro	vement projec	t? 🔲 Yes 🔲 No	o; If yes	s, impro	vement proje	ct ID			
2. SEGMENT INFORMATION									
Current Average Daily Traffic				Project L	ength (miles)				
Crash Rate		Roadway Width				Shoulde	Shoulder Width		
3. INTERSECTION INFORMATION	N								
Crash Rate		Entering Vehicle	Volume			Roadwa	ay Width		
4. IDENTIFICATION OF HAZARDS	e								
5. PROPOSED IMPROVEMENT									
Describe the proposed project and options are not the preferred altern	how it will add	ress the identified h	hazards.	In additi	on, briefly discu	iss any al	ternatives co	onsidered and	I why these
)T1501 Highway Safety Improveme	nt Program (H	SIP) Project Applica	ation						Page 3 o

#### Brown County Roadway Safety Plan (2018)

- The goal of the plan is to reduce fatal and serious injury crashes on county roads by prioritizing locations that have safety issues and applying specific safety strategies to these locations.
- The plan implemented a ten-step process, which included extensive data collection, crash analysis, identifying risk factors, prioritizing locations, determining possible safety strategies, creating decision trees, and recommending projects for implementation.



# What is the Greater Madison MPO and Dane County Area doing?

Connect Greater Madison: 2050 Regional Transportation Plan (2022)

- The purpose of the Regional Transportation Plan (RTP) is to help identify how the region should invest in the transportation system to accommodate current and future travel demands. The Greater Madison Area has experienced aggressive growth in the last 20 years and is estimated to continue to grow between 2020 and 2050. A well-planned transportation network is critical to meet the needs and goals of the region.
- The RTP is updated every five years and is created to help set the framework for how the region will build, manage, and operate its multi-modal transportation system. The RTP identifies six goals in which specify the policies, projects, and strategies to obtain these goals. Performance measures are determined in order to track progress.
- The second goal of the plan is safety. This includes an emphasis on enhanced protection for vulnerable roadway users through the use of the safe systems approach. These goals are incorporated into looking

#### The Connect Greater Madison 2050 Regional Transportation Plan Goals



of a safe systems approach, thereby helping to achieve the long-term goal of eliminating fatal and serious traffic injuries.

 transportation system that provid people with affordable access to , enables the efficient movement of goods services within the region and beyond, and supports and attracts diverse residents and businesses, creating a shared prosperity



GOAL 5: ENVIRONMENTAL SUSTAINABILITY

greenhouse gas emissions that contribute to global climate hange; avoid, minimize, and mitigate the historic and cultural resources; and design and maintain a transportation system that is

GOAL 4: EQUITY Provide convenient, affordable transportation options that enable all people, regardless of age,

ability, race, ethnicity, or income, to access jobs, services, and other destinations to pus, services, and other designations to meet their daily needs, engage traditionally underrepresented groups; and ensure that the benefits of the regional transportation system are fairly distributed, taking into consideration current inequifies resulting from past decisions, and that environmental



GOAL 6: SYSTEM PERFORMANCE

system by maintaining it in a state of good repair and harnessing technological maximize mobility options; and manage the system to maximize efficiency and reliability.

at the future of our transportation system, determining critical issues, new technologies, and considering all modes of transportation to determine key needs and recommendations on how to implement changes and improvements within our transportation system.

#### Madison MPO Intersection Safety Network Screening (2019 & 2022)

- The University of Wisconsin Traffic Operations and Safety (TOPS) Labratory developed a crash prediction model using 2017-2020 WisDOT collision data to identify high-risk locations. The results of the network screening and ranking of high-risk segments resulted in a level of safety score (LOSS) and ultimately the high injury network.
- The network screening consisted of analyzing 4,602 intersections and 2,841 corridors. The data collected included traffic, signal control, speed limit, geometry, crashes, and more.
- To predict crashes per year, the statistical modeling took into account for overdispersion in crash data to develop safety performance functions for each category: Signal, Stop (All-Way), Stop and Stop (Multi), Yield and No Control, and Roundabout.



#### Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County (2015)

- The goal of the Bicycle Transportation Plan is to serve as a blueprint for continuing to provide and improve bicycle conditions and safety throughout Dane County for all levels of bicycling experience. The plan's vision extends to the year 2050 with the following six main goals:
  - Safety
  - o Usage
  - o Connectivity
  - o Equity
  - $\circ$  Livability
  - Longevity
- The strategies behind the plan include adopting the seven "E's" to help identify strategies to obtain their goals:
  - $\circ$  Education
  - o Encouragement
  - Enforcement
  - o Engineering
  - Envisioning (Planning)
  - $\circ$  Evaluation
  - End of Trip Facilities and Multi-Modal Connections
- Overall, the plan includes exploring a toolbox of different bicycle facilities that can be provided along the network to improve conditions. Recommendations in the plan include a combination of on-street and off-street improvements to the bicycle network, including enhancing existing facilities as well as future bicycle facilities. Additionally, the plan looks to encourage bicycling within the community by increasing the number of bicyclists and creating an active bicycling culture.



 Accountability of the plan will be completed by the MPO, which will monitor and regularly report on the status of implementation of the bicycle facility network and other plan recommendations and the performance measures provided in the plan.



#### Dane County Bicycle and Pedestrian Crash Study (2018)

- The Dane County Bicycle and Pedestrian Crash Study analyzed crashes involving a bicyclist and/or
  pedestrian between 2011 2015 to identify trends, common features, characteristics, and locations to
  assist in improving safety for these users. Additionally, other plan goals included assessing the changes in
  bicycle safety in the City of Madison, since a study was completed in 1992 and setting a benchmark for
  future safety performance measures throughout the area.
- The study included an extensive review of bicycle and pedestrian-related crash reports over the analysis period. It was determined that speeding, impairment, inattention, and failing to obey traffic controls attributed to the majority of the crashes. These dangerous behaviors can be addressed through education and enforcement. Continuing to provide engineering solutions also helps to mitigate the risk of crashes at specific locations.

## <u>Pedestrian/Bicycle Facility Requirements, Policies, & Street Standards: Review of Community</u> <u>Requirements in the Greater Madison MPO Planning Area and Recommended Best Practices (2021)</u>

- The goal of this report is to review locally adopted pedestrian/bicycle requirements, national recommendations, and best practices to help local planning and engineering staff and elected officials to make informed decisions when it comes to decisions regarding the development and design of roadways to make them safe for all users.
- The report explores different aspects of the roadway facility including streets; sidewalks, separated paths, bicycle lanes; non-motorized access and circulation standards; equity considerations; and accessibility. Standards and requirements that are currently being provided by Madison area cities, villages, and towns are included to assist in overall recommendations for future policy and design standards.



#### City of Madison Vision Zero Action Plan (2022)

- The City of Madison's Vision Zero Action Plan aims to eliminate all fatal and severe injury crashes on city streets by 2035. To achieve this goal, the priority of the transportation system needs to be shifted from moving vehicles as efficiently as possible to prioritizing safe, healthy, and equitable mobility for all roadway users.
- The plan outlines strategies and actions that need to be taken to achieve the vision zero goal, however, it is intended to be a "living" document that can be changed to address city needs as they evolve.
- The guiding principles of the Vision Zero plan include the following:
  - Prioritizing Safety
    - Designing streets for people instead of vehicles.
    - Take the focus away from trying to make it safer for personal vehicles to move efficiently through the network to focus on safe mobility for all roadway users.
  - o Data Driven
    - Relies on a data-driven process to determine the best strategies to be implemented and where they would be most effective.
    - Expand on data analysis by not just relying on traffic engineers, but involving policymakers, public health officials, police departments, civil rights advocates, and other stakeholders.
  - o Equity
    - Reduce geographic and racial disparities in crashes by prioritizing street design safety efforts in locations that have been historically marginalized.
    - Focus on designing roadways and cultivating a driving culture that puts safety first instead of speed. Understanding that increasing enforcement will not lead the way to zero deaths and severe injuries. Enforcement policies should focus on hazardous behaviors that make an impact on safety, instead of disproportionately targeting people of color.
  - o Engagement
    - Involving and receiving input from community members will help build the foundation of the plan and the strategies that should be incorporated to make a safer and more equitable roadway infrastructure.
- "Let's Talk Streets" is an engagement project that the city has started to gather more information regarding ongoing projects. The goal is to help engage the community and make sure their values and goals are being met and heard.



- The safe systems approach is used in the action plan to address the main factors that lead to death in crashes. The action plan uses the following factors of the safe systems approach:
  - Safe Streets
  - Safe People
  - Safe Vehicles
  - Safety Data
  - Safety Focused Enforcement



Strategies were developed for each one of these factors to take action and move towards the commitment to zero deaths on city streets.



Traditional Approach	Vision Zero
Traffic deaths are inevitable	Traffic deaths are preventable
Aims to fix humans	Changes systems
Expects perfect human behavior	Integrates human failure
Prevents collisions	Prevents fatal and severe crashes
Exclusively addresses traffic engineering	Considers the road system as a whole
Doesn't consider disproportionate impacts	Regards road safety as an issue of social equity

#### City of Sun Prairie Vision Zero Initiative

- The City of Sun Prairie's Pedestrian Safety Task Force has undertaken the goals of the Vision Zero initiative. Their goal is to reach zero fatalities and serious injuries to travelers by effective education, engineering, enforcement, and data analysis.
- The Pedestrian Safety Task Force is led by the City's Director of Public Works/City Engineer and has representatives from engineering, public works, Sun Prairie utilities, neighborhood navigators, police and fire departments, and building inspection. They specifically are focusing on safety and creating solutions that will enhance pedestrian safety within their community.
- Some actions they have completed to date include reducing speed limits along certain roadways, using the Transportation Hazard Reporter app for the community to report pedestrian safety hazards, and community involvement events to be able to connect with the task force on ideas and safety improvement strategies.

#### Dane County Traffic Safety Commission (TSC) Traffic Safety Emphasis Areas & Work Plan

- The Dane County TSC work plan includes three smart objectives. This includes quarterly multi-disciplinary meetings, using a data-driven process, identifying issues, and developing recommendations to reduce deaths and severe injuries. Additional objectives include implementing projects, creating partnerships that will focus on the four priority areas, and raising awareness of traffic safety in the county.
- The four priority areas include the following:
  - $\circ~$  Reducing Risky Driving Behavior
    - Action items include outreach supporting enforcement, expanding data-informed enforcement, improving distracted driving data collection & identifying countermeasures, and educating on graduated driver licensing.
  - Reducing Impaired Driving
    - Action Items include submitting NHTSA's drug-impaired driving evaluation tool, promoting ARIDE training & DRE certification, expanding and coordinating multijurisdictional OWI enforcement, expanding uptake of Place of Last Drink program, and safe communities OWI education campaign.
  - o Pedestrian Crashes
    - Action Items include an education campaign coinciding with enforcement and a pedestrian safety task force.



- Racial Disparities with Traffic Injuries
  - Action Items include organizing a summit on racial disparities with traffic injuries, creating a communication campaign to coincide with the summit, and improving safety features with older vehicles.
- A Law Enforcement subgroup was formed to coordinate enforcement efforts, improve data collection and reporting, and promote and provide training/educational opportunities.

#### Surface Transportation Block Grant (STBG) Program

- The Greater Madison MPO solicits funding for projects biennially for FHWA STBG-Urban funding (formerly STP). This funding may be used for projects to preserve and improve the conditions and performance on any Federal-aid roadway, for bridge projects on any public roadway, for pedestrian/bicycle infrastructure or programs, and for transit capital projects.
- The various types of projects all have minimum total project costs that are required. Additionally, for the 2024-2029 program cycle, the federal share for new projects will be 65% and the local share will be 35%, for projects costing more than \$1,000,000 and the standard 20% local match will be applied for projects not exceeding \$500,000. Projects between \$500,000 and \$1,000,000 will be based off a sliding scale for cost share.
- Two types of criteria are used in the STBG project section process:
  - o Screening Criteria
    - Ensures that the project meets eligibility requirements, consistent with the goals adopted by Connect Greater Madison: 2050 Regional Transportation Plan (RTP), has local policy body commitment, and a reasonable expectation of implementation.
  - o Scoring Criteria
    - Designed to incorporate the goals of the Connect Greater Madison: 2050 Regional Transportation Plan and goals of the Infrastructure Investment and Jobs Act (IIJA).
- Scoring to approve possible funded projects includes the following seven categories:
  - Importance to the regional transportation system
  - System preservation
  - Congestion mitigation/TSM
  - Safety enhancement
  - Enhancement of multi-modal options/service
  - Environment
  - o Equity



Scoring for the various types of projects has different weighted values, which reflect on the relevance and significance of each category.

		Scoring System					
	Category	Roadway	Transit	ITS	Bike		
	F		(Infrastr.)				
1	Importance to Regional Transportation System and Supports Regional Development Framework	18	25	15	25		
2	System Preservation	20	15	5	5		
3	Congestion Mitigation/TSM	12	15	20	5		
4	Safety Enhancement	20	5	20	20		
5	Enhancement of Multi-modal Options/Service	12	15	15	25		
6	Environment	8	10	15	5		
7	Equity	10	15	10	15		
	Total	100	100	100	100		

#### STBG-Urban Project Scoring System

Note: The Transit (Bus Purchase) project type was removed as a scored project type. Applications requesting bus purchase funding will be evaluated but not scored.

#### Greater Madison MPO Complete Streets Policy

- The Greater Madison MPO adopted a Complete Streets Policy in 2023. The community's input was considered in the planning process to meet safety and equity priorities outlined by the MPO. The goal of the Complete Streets Policy is to promote the development of complete streets projects that are equitable, safe, sustainable and accommodate for all modes of transportation.
- The MPO prioritizes projects in areas that have historically been underinvested in. These neighborhoods lack the infrastructure and facilities needed for an equitable transportation system. The policy is also designed to help serve the needs of disadvantaged communities, such as racial and ethnic minorities and low-income populations.
- The MPO will measure the performance related to the development of the complete street networks annually by monitoring transit ridership, bicycle utilization, pedestrian and bicycle fatalities.



#### ADA Transition Plans

- With respect to transportation, the goal of the Americans with Disabilities Act (ADA) is to ensure that pedestrians with disabilities (who may use mobility devices) have an equal opportunity to use the public rights-of-way in the transportation system.
- The Greater Madison MPO provides assistance to agencies within the region to develop their local ADA Transition Plan.

## What are other national and international best practices?

## <u>The World Health Organization and the United Nations Regional Commissions Global Plan for</u> the Decade of Action for Road Safety 2021-2030

- The plan rejects business as usual and calls on governments and stakeholders to take a new path one that prioritizes and implements an integrated Safe System approach that squarely positions road safety as a key driver of sustainable development.
- It calls for actions that help the world hit the target of 50% reduction in the number of traffic deaths and serious injuries by 2030.

#### International Best Practices

• Reduction in speed limits, roadway design to encourage reduced speed, automatic camera speed enforcement, and high fines for speeding are utilized by countries that have experienced a reduction in traffic fatalities and injuries (France, Finland, Canada, and others).

## Other US National Efforts

## <u>The United States Department of Transportation National Roadway Safety Strategy (NRSS)</u> (January 2022)

- The NRSS outlines the Department's comprehensive approach to significantly reducing serious injuries and deaths on our Nation's highways, roads, and streets. This is the first step in working toward an ambitious long-term goal of reaching zero roadway fatalities.
- The NRSS sets a vision and goal for the safety of the Nation's roadways, adopts the Safe System Approach principles to guide our safety actions, and identifies critical and significant actions the Department will take now in pursuit of five core objectives: Safer People, Safer Roads, Safer Vehicles, Safer Speeds, and Post-Crash Care.