



GREATER MADISON  
**mpo**

# Regional Safety Action Plan



# Greater Madison MPO

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## Regional Safety Action Plan



July 2024

Prepared for: Greater Madison MPO

Prepared by: SRF Consulting Group

In association with: Alta Planning + Design and KL Engineering



# Greater Madison Metropolitan Planning Organization

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The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation or WisDOT.



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**Greater Madison MPO 2024 Resolution No. 9**  
**Adopting the Regional Safety Action Plan for the Greater Madison MPO**

**WHEREAS**, the Greater Madison MPO is the designated Metropolitan Planning Organization for the Madison, Wisconsin Metropolitan Area with responsibilities to perform regional transportation planning and programming, in cooperation with the Wisconsin Department of Transportation and Metro Transit, the major transit operator; and

**WHEREAS**, one of the primary responsibilities of the MPO is to prepare and approve a long-range regional transportation plan in accordance with the Infrastructure Investment & Jobs Act (IIJA), also known as the Bipartisan Infrastructure Bill (23 U.S.C. 104, 134) and implementing U.S. Department of Transportation (DOT) regulations (23 C.F.R. 450); and

**WHEREAS**, one of the primary goals of the *Connect Greater Madison 2050 Regional Transportation Plan* is to ensure that the transportation system enables all people to get to where they need to go safely with an emphasis on enhanced protection for vulnerable roadway users through use of a safe systems approach, thereby helping to achieve the long-term goal of eliminating fatal and serious traffic injuries; and

**WHEREAS**, the Greater Madison MPO has developed a Regional Safety Action Plan (RSAP) to provide a comprehensive framework using the Safe System Approach to reduce traffic fatalities and serious injuries on the regional transportation network with a goal of zero roadway fatalities and serious injuries by 2040; and

**WHEREAS**, the RSAP was developed through a collaborative process that included input from regional stakeholders, public agencies, community organizations, and the general public; and

**WHEREAS**, the RSAP identifies key safety concerns, sets performance targets, and outlines strategies and actions to improve transportation safety across the MPO metropolitan planning area; and

**WHEREAS**, the implementation of the RSAP will help support the Wisconsin Strategic Highway Safety Plan (SHSP), and align with national performance measure goals and National Roadway Safety Strategy set forth by the U.S. Department of Transportation (USDOT), supported by the Safe Streets and Roadway for All (SS4A) program; and

**WHEREAS**, the MPO will collaborate with local, regional, and state partners to implement the strategies and actions identified in the RSAP, leveraging available funding sources and seeking new opportunities to enhance transportation safety; and

**WHEREAS**, the MPO will monitor and report on progress towards achieving the safety performance targets outlined in the RSAP and will periodically update the RSAP as necessary to address emerging safety issues and reflect best practices:

**NOW, THEREFORE, BE IT RESOLVED** that the Greater Madison MPO hereby adopts the Regional Safety Action Plan as the guiding document for transportation safety improvements in the Madison metropolitan planning area.




**BE IT FURTHER RESOLVED** that the Greater Madison MPO hereby adopts a goal of zero roadway fatalities and serious injuries on regional roadways by 2040, and encourages all municipalities and transportation agencies within its jurisdiction to align their local safety initiatives with the RSAP and work collectively towards the shared vision of zero roadway fatalities and serious injuries.

June 5, 2024

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Date Adopted

A handwritten signature in black ink that reads "Mark Opitz". The signature is written in a cursive style with a long horizontal stroke extending from the end of the name.

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Mark Opitz, Board Chair  
Greater Madison MPO

## Acknowledgments

The Greater Madison Regional Safety Action Plan is a product of a collaborative effort and commitment from the MPO staff and Policy Board, Technical Coordinating Committee, Dane County Traffic Safety Commission, and the communities within the region.

## Technical Coordinating Committee

City of Fitchburg	Dane County Planning & Development, Highway and Transportation Department	Village of DeForest
City of Madison Engineering Department, Planning Division, and Traffic Engineering Division	Federal Highway Administration, WI Division	Village of McFarland
City of Middleton	Federal Transit Administration, Region V	Village of Oregon
City of Monona	Metro Transit	Village of Waunakee
City of Stoughton	Village of Cottage Grove	Village of Windsor
City of Sun Prairie		WisDOT Bureau of Planning & Economic Development
City of Verona		WisDOT Southwest Region

## Dane County Traffic Safety Commission

AAA Wisconsin	Greater Madison MPO	Sun Prairie Pedestrian Task Force
American Family Children's Hospital / Safe Kids	Madison Metro	Sun Prairie Police Dept.
Belleville Police Dept.	Madison Municipal Court	Sun Prairie Public Services
Blue Mounds Police Dept.	Madison Police Dept.	Town of Madison Police Dept.
CESA 2 Driver's Education	Madison Traffic Engineering	UW Extension
Cottage Grove Police Dept.	Marshall Police Dept.	UW Health Trauma Centers
Cross Plains Police Dept.	McFarland Police Dept.	UW Police Dept.
Dane Co. Court Commissioner	Middleton Police Dept.	UW TOPS Laboratory
Dane Co. District Attorney's Office	Monona Police Dept.	UW Transportation Services
Dane Co. EMS	Mount Horeb Police Dept.	Verona Police Dept.
Dane Co. Highway & Transportation	Oregon Police Dept.	Waunakee Police Dept.
Dane Co. Sheriff's Office	Public Health Madison & Dane Co.	WI Alcohol Policy Project
DeForest Police Dept	Safe Communities Madison-Dane Co.	WI Bike Federation
DeForest Public Works	Shorewood Hills Police Dept.	WI Dept. of Transportation/ Bureau of Traffic Safety
Fitchburg Police Dept.	SSM Health	WI State Laboratory of Hygiene
Fitchburg Public Works	Stoughton Police Dept.	WI State Patrol

## Letter from MPO



Every day more than half a million Dane County residents rely on the regional transportation system to get where they need to go. Tragically, not everyone makes it home. Since 2017, more than 250 lives have been lost on Wisconsin roadways, and over 1,400 people have suffered life-changing injuries. Alarming, both national and local statistics illustrate a concerning reality: bicyclists and pedestrians are more likely to be killed or seriously injured than anyone else on the road.

There is no way for us to bring those 250 people back, but we can make changes to our roadways to prevent future traffic fatalities. The Greater Madison Metropolitan Planning Organization's Regional Safety Action Plan serves as a blueprint to help the region achieve an ambitious target of zero roadway fatalities and injuries by 2040.

Grounded in data and informed by comprehensive public engagement, it identifies key priorities enhancing safety through the Safe Systems approach. We must rethink how we approach safety and prioritize safer roadway designs for all users, safe speeds, safe vehicles, and promote safe user behavior. Achieving this will require collaboration across different fields and areas of expertise, including planners, engineers, community advocates, public health professionals, educators, and law enforcement, along with the help of local elected officials and policymakers.

Most importantly, it starts with you. Together, we have the power to drive change by shifting behaviors and transforming conditions so that nobody has to endure the pain of losing a loved one to a roadway fatality again.

Alexandra Andros  
Greater Madison MPO Director

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[Regional Safety Action Plan Online Map](https://bit.ly/RSAPPriorityMap)

(<https://bit.ly/RSAPPriorityMap>)

## Acronyms and Abbreviations

BIL	Bipartisan Infrastructure Law
EMS	Emergency Medical Services
FHWA	U.S. Federal Highway Administration
HIN	High Injury Network
HSIP	Highway Safety Improvement Program
IJA	Infrastructure Investment and Jobs Act
KABCO	Injury Severity Scale: <ul style="list-style-type: none"><li>• K: Fatal Injury</li><li>• A: Suspected Serious Injury</li><li>• B: Suspected Minor Injury</li><li>• C: Possible Injury</li><li>• O: No Apparent Injury</li></ul>
MPO	Metropolitan Planning Organization
NCHRP	National Cooperative Highway Research Program
RRFB	rectangular rapid flash beacon
RSAP	Regional Safety Action Plan (Greater Madison Regional Safety Action Plan)
RTP	Connect Greater Madison 2050 Regional Transportation Plan
SHSP	Strategic Highway Safety Plan
SS4A	Safe Streets and Roads for All
SRTS	Safe Routes to School
STBG	Surface Transportation Block Grant Program
TCC	Technical Coordinating Committee
VRU	Vulnerable Road User
WisDOT	Wisconsin Department of Transportation

# Chapter 1: Why a Safety Action Plan?

## National Context

The Bipartisan Infrastructure Law (BIL) enacted by the U.S. Congress in 2021 established the Safe Streets and Roads for All (SS4A) Grant Program. The SS4A program provides discretionary grants to local, regional, and Tribal governments focused on the prevention of deaths and serious injuries on our local and regional roadway system. The SS4A program helps to implement the U.S. Department of Transportation’s (USDOT) National Roadway Safety Strategy, which focuses on eliminating deaths and serious injuries across the nation’s roadway system.

The Regional Safety Action Plan (RSAP) is the basic building block to guiding local and regional approaches through projects and strategies to

address safety risks on the roadway system. The SAP uses analysis of historic crash information combined with roadway system user and community input to identify projects and strategies. The U.S. Department of Transportation has adopted a Safe System Approach, which is a guiding paradigm in the development of the SAP.

## The Approach to Traffic Safety

The Safe System Approach is the foundational strategy for the Vision Zero movement and is proven to substantially reduce fatalities and serious injuries. USDOT has adopted the Safe System Approach to address contributing crash factors and promote layers of protection to prevent crashes and mitigate crash severity. This approach recognizes that humans make mistakes, humans are vulnerable, and redundant measures are needed to protect all road users.

### Traditional Approach

- Traffic deaths are inevitable
- Aims to fix humans
- Expects perfect human behavior
- Prevents crashes
- Exclusively addresses traffic engineering
- Doesn’t consider disproportionate impacts

VS.

### Safe System Approach

- Traffic deaths are preventable
- Aims to fix systems
- Humans make mistakes
- Prevents fatal and serious crashes
- Considers the roadway system as a whole
- Considers road safety as an issue of social equity




The Safe System Approach is guided by five core elements.

## Core Elements of the Safe System Approach

- **SAFE ROAD USERS**

All road users, including those walking, biking, riding, and driving, should always operate in a safe and responsible manner when on the roadway.
- **SAFE SPEEDS**

Safer speed setting, education, and enforcement are promoted across all road environments to reduce kinetic forces associated with crashes to a tolerable level on the human body.
- **SAFE VEHICLES**

Vehicles are designed incorporating the latest technology and used in appropriate ways (such as always wearing a seat belt) to minimize crash severity and frequency.
- **SAFE ROADS**


Roads are designed to accommodate human mistakes, encourage safe behavior, and reduce crash severity and frequency.
- **POST-CRASH CARE**

Receiving quick emergency medical care following a crash is essential to assist those who have been injured and to reduce fatalities.

## Vulnerable Road Users

Vulnerable road users are people walking, biking, or rolling. People within a motor vehicle or on a motorcycle are not included in this definition. Vulnerable road users are unprotected from motor vehicles and are therefore especially vulnerable to the devastating impact of a motor vehicle crash. According to the National Highway Traffic Safety Administration, vulnerable road users accounted for a growing share of all roadway fatalities in recent years.<sup>1</sup> Just between the years 2020 and 2021, pedestrian fatalities were estimated to have increased by 13 percent and bicyclist fatalities by five percent. **The U.S. Department of Transportation labels this increase in fatalities with respect to vulnerable road users as a crisis and that “substantial, comprehensive action to significantly reduce serious and fatal injuries on the Nation’s roadways.”** It must also be added that the conditions and areas with additional risk to vulnerable road users likewise should be included in this call for action.

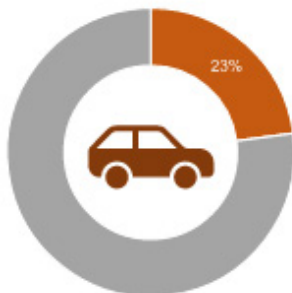




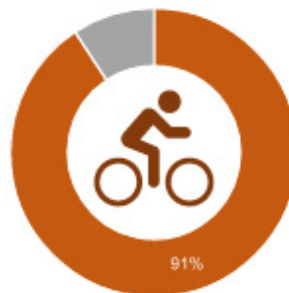
### Vulnerable Road User Severe Crashes in Greater Madison MPO

23% of vehicular crashes result in injury (KABC), whereas more than 90% of crashes involving a bicyclist or pedestrian result in injury (KABC).

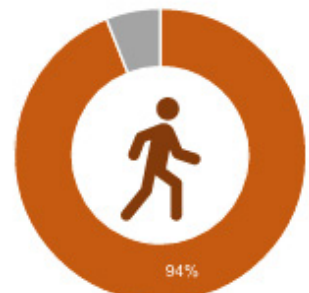
% Car crashes fatal or injury



% bike crashes fatal or injury



% ped crashes fatal or injury



<sup>1</sup> <https://www-fars.nhtsa.dot.gov/Main/index.aspx>

# Chapter 2: Roadway Safety in the Greater Madison MPO

## About the Greater Madison MPO

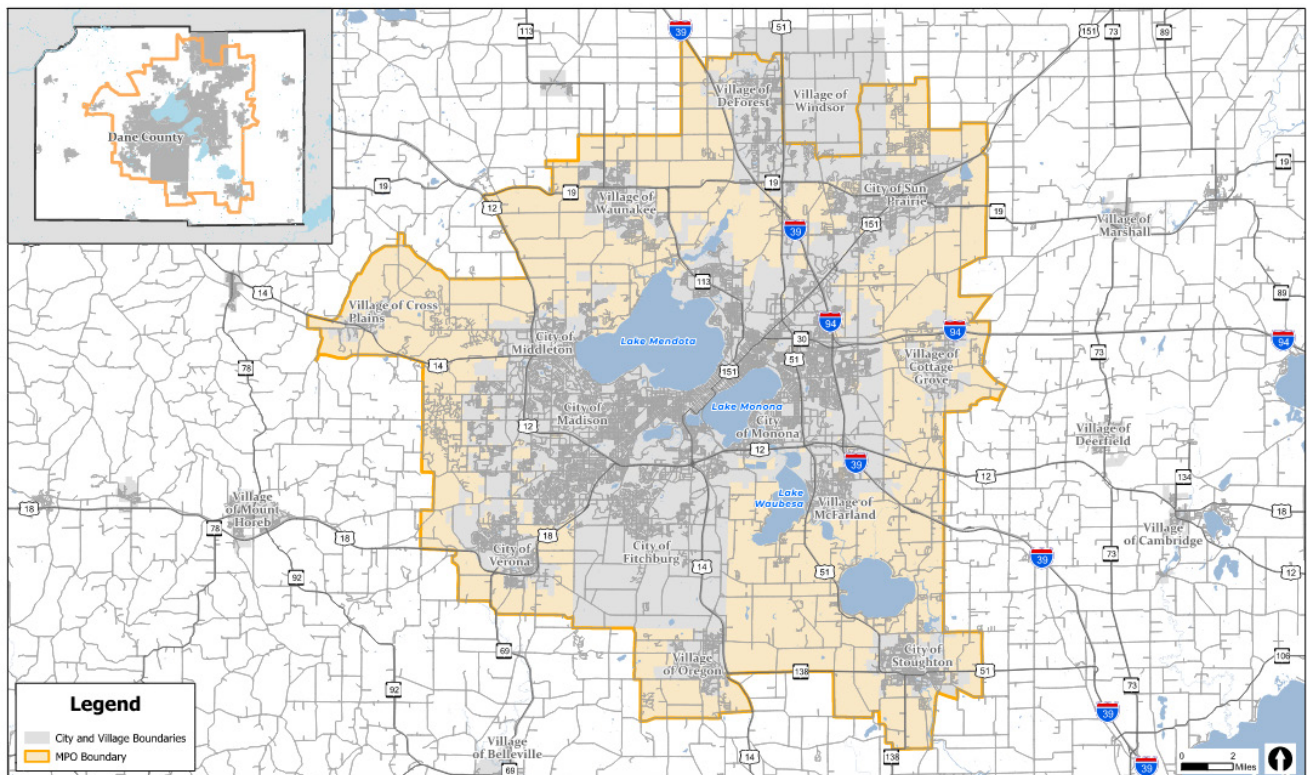
### CONNECTING PEOPLE, PLACES, AND OPPORTUNITIES

The Greater Madison MPO (“the MPO”) is the federally designated Metropolitan Planning Organization (MPO) for the Madison Urban Area. The mission of the MPO is to lead the collaborative planning and funding of a sustainable, equitable transportation system for the greater Madison region. The MPO brings communities together

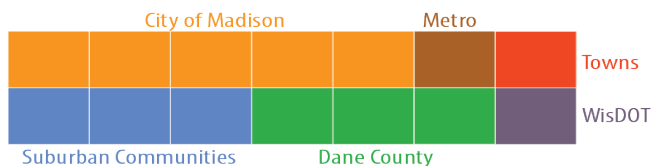
to prioritize, coordinate, and fund transportation projects in the region, while supporting regional land use, environmental, and economic objectives.

The MPO’s Metropolitan Planning Area includes the Madison Urban Area and all or portions of the 34 contiguous villages, cities, and towns that are or are likely to become urbanized within the 20+ year planning period as well as other areas containing important regional transportation corridors, as shown in Figure 1 Greater Madison MPO Map. Federal rules require the designation of MPOs in urbanized areas of 50,000 or more in population as a condition for spending Federal highway and transit funds. The MPO is the official policy body responsible for administering the cooperative, comprehensive regional transportation planning and decision-making process for the Madison Metropolitan Planning Area.

Figure 1 Greater Madison MPO Map



The MPO is required to develop and maintain a long-range multi-modal regional transportation plan every five years. It develops special plans and studies, such as the Dane County Bicycle & Pedestrian Crash Study, and collects data to help inform and drive implementation of the regional transportation plan, and approves federal funding for transportation projects through the annual Transportation Improvement Program (TIP). While the MPO provides regional coordination and approves use of Federal transportation funds within the metropolitan planning area, responsibility for the implementation of specific transportation projects lies with WisDOT, Dane County, City of Madison, and other local units of government as transportation providers.



The MPO is governed by a 14-member Policy Board appointed by the local units of government within the Metropolitan Planning Area, Dane County, and WisDOT. The Policy Board is made up of elected officials, officials of public agencies that administer or operate major modes of transportation in the metropolitan area, and appropriate State officials. The Policy Board is advised by the MPO’s Technical Coordinating Committee (TCC), which reviews, coordinates, and advises on transportation planning matters. The TCC is comprised of engineers, planners, and other professionals who represent local governments and transportation agencies.

## Why the MPO Needs a Regional Safety Action Plan

The loss of even one human life on a roadway is unacceptable. From 2017 – 2021, 170 people died from roadway crashes within the MPO region. Hundreds more experienced life altering and serious injuries. Between 2020 and 2050, the population within the region is expected to grow by 35%, adding nearly 195,000 additional residents and users of the roadway network to drive, bike, walk, and roll. Therefore, increasing the opportunity for collisions.

**Population Growth**

**Multimodal Demand**

**Regional Public Health**

The contiguous villages, cities, and towns, within the region must collaborate together with the MPO, Dane County, and WisDOT to work toward the shared goal of improving safety for all roadway users and access to medical facilities when crashes do occur.

The MPO also acknowledges that connectivity for all roadways users is imperative. With population growth expected over the next 30 years, the region’s roadways will become burdened, affecting resident’s quality of life. The region must continue to identify and fill gaps within the region’s bicycle, pedestrian, and transit network to encourage healthy communities.



## Vision and Goals

The MPO desires transformative change in order to achieve its vision for the safety of its transportation infrastructure. Eliminating fatalities and serious injuries requires the region's transportation leadership and staff to prioritize the issue, and to work closely with its transportation partners to do the same. Achieving the vision requires tremendous effort



**Zero traffic deaths and severe injuries on streets within the MPO by 2040**

focused on physical engineering efforts and various non-engineering efforts, such as education, enforcement, and agency collaboration. **The MPO's vision will be measured on an annual basis starting in 2025, by the percent reduction in fatal and serious injury crashes.** These measures are already a part of the MPO's [Performance Measures Dashboard](#), which includes federally required safety reporting. The following goals outline the big picture efforts in working toward the vision to reduce all traffic deaths and severe injuries on streets within the MPO Zero by 2040. To achieve zero fatalities, the MPO identified the following goals for the region:

<p><b>Goal 1:</b> Elevate the need to address safety improvements for all users across the regional transportation system.</p>	<p><b>Goal 2:</b> Collaborate with partner agencies in a shared mission to improve transportation safety and create a culture of safe driving behavior.</p>	<p><b>Goal 3:</b> Invest in equitable transportation safety improvements.</p>
<p><b>OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>A. All street crossings are compliant with the American with Disabilities Act.</li> <li>B. Enhance protection for vulnerable roadway users to ensure that all people can get to where there need to go safely.</li> <li>C. Identify sidewalk and trail gaps to help connect existing sidewalks and paths and keep vulnerable users off the roadway.</li> <li>D. Close lighting gaps across the transportation system.</li> </ul>	<p><b>OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>A. Partner with city, village, and town staff to systematically improve safe driving, cycling, walking and rolling.</li> <li>B. Partner with agencies and their school districts to systemically improve the safety of routes to schools within the region.</li> <li>C. Continue to partner with the state Department of Transportation to improve the safety of state routes and federal aid-eligible routes in the region.</li> <li>D. Closely monitor driver behavior in HIN areas.</li> <li>E. Provide special focus on enforcement and education efforts.</li> <li>F. Promote awareness of traffic rules.</li> </ul>	<p><b>OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>A. In order to provide a safe alternate mode for vulnerable users, support existing transit service and efforts to expand transit service.</li> <li>B. Provide convenient, affordable transportation options that enable all people access to where they would like to go.</li> <li>C. Engage traditionally underrepresented groups to ensure that the benefits from the regional transportation system are fairly distributed.</li> </ul>

## Chapter 3: State of Practice



Several plans, policies, and programs address road safety at the international, national, state, and local levels. State and local laws governing the operation of motor vehicles are primarily designed to promote road safety.

National policies and programs include the Complete Streets movement, Safe Routes to School (SRTS), Operation Lifesaver, and the Americans with Disabilities Act (ADA). These policies emphasize the need to accommodate all travel modes.

Statewide plans include the Highway Safety Plan (2022), Strategic Highway Safety Plan (2023–2027), and the Local Road Highway Safety Improvement Program (HSIP). WisDOT's top priority is to ensure safety for all road users.

At the local level, the communities within the MPO region lead traffic safety efforts focusing on local priorities and recommendations for future road improvements within their jurisdiction. The communities within the MPO region continue to coordinate with the MPO; however, their Safety Action Plans and analysis may differ slightly due to the difference in priorities and scale – regional vs. local community-based.

The MPO and communities within the Dane County area have also completed the following plans, policies, and programs. These documents include a wide range of activities the region is undergoing to address roadway safety.

- Connect Greater Madison: 2050 Regional Transportation Plan (2022)
- Madison MPO Intersection Safety Network Screening (2019 & 2022)
- Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County (2015)
- Dane County Bicycle and Pedestrian Crash Study (2018)
- Pedestrian/Bicycle Facility Requirements, Policies, & Street Standards: Review of Community Requirements in the Greater Madison MPO Planning Area and Recommended Best Practices (2021)
- City of Madison Vision Zero Action Plan (2022)
- City of Sun Prairie Vision Zero Initiative (in progress)
- Dane County Traffic Safety Commission (TSC) Traffic Safety Emphasis Areas & Work Plan
- Surface Transportation Block Grant (STBG) Program

See Appendix 1 for a summary of additional safety activities completed at the state, national, and international level.



# Connect Greater Madison: 2050 Regional Transportation Plan (2022)

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

**GOAL 1: LIVABLE COMMUNITIES**  
 Create connected livable places linked to jobs, services, education, retail, and recreation through a multimodal transportation system that supports compact development patterns, increasing the viability of walking, bicycling, and public transit.

**GOAL 2: SAFETY**  
 Ensure that the transportation system enables all people to get to where they need to go safely with an emphasis on enhanced protection for vulnerable roadway users through use of a safe systems approach, thereby helping to achieve the long-term goal of eliminating fatal and serious traffic injuries.

**GOAL 3: PROSPERITY**  
 Build and maintain a transportation system that provides people with affordable access to jobs, enables the efficient movement of goods and services within the region and beyond, and supports and attracts diverse residents and businesses, creating a shared prosperity that provides economic opportunities for all.

**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 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 inequities resulting from past decisions, and that environmental justice populations are not disproportionately impacted.

**GOAL 5: ENVIRONMENTAL SUSTAINABILITY**  
 Minimize transportation-related greenhouse gas emissions that contribute to global climate change; avoid, minimize, and mitigate the environmental impacts of the transportation system on the natural environment and historic and cultural resources; and design and maintain a transportation system that is resilient in the face of climate change.

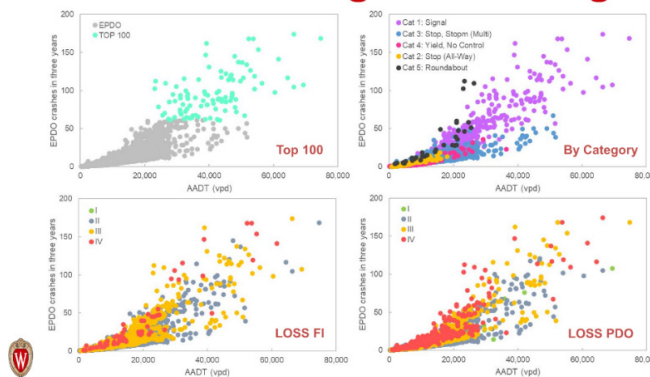
**GOAL 6: SYSTEM PERFORMANCE**  
 Maximize the investment made in the existing transportation system by maintaining it in a state of good repair and harnessing technological advances; promote compact development and travel demand management to minimize the need for new roadway lane-miles and maximize mobility options; and manage the system to maximize efficiency and reliability.

- 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.
- Safety is one of the six main goals of the plan.. 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 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)

### Network Screening and Ranking



- The University of Wisconsin Traffic Operations and Safety (TOPS) Laboratory 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.

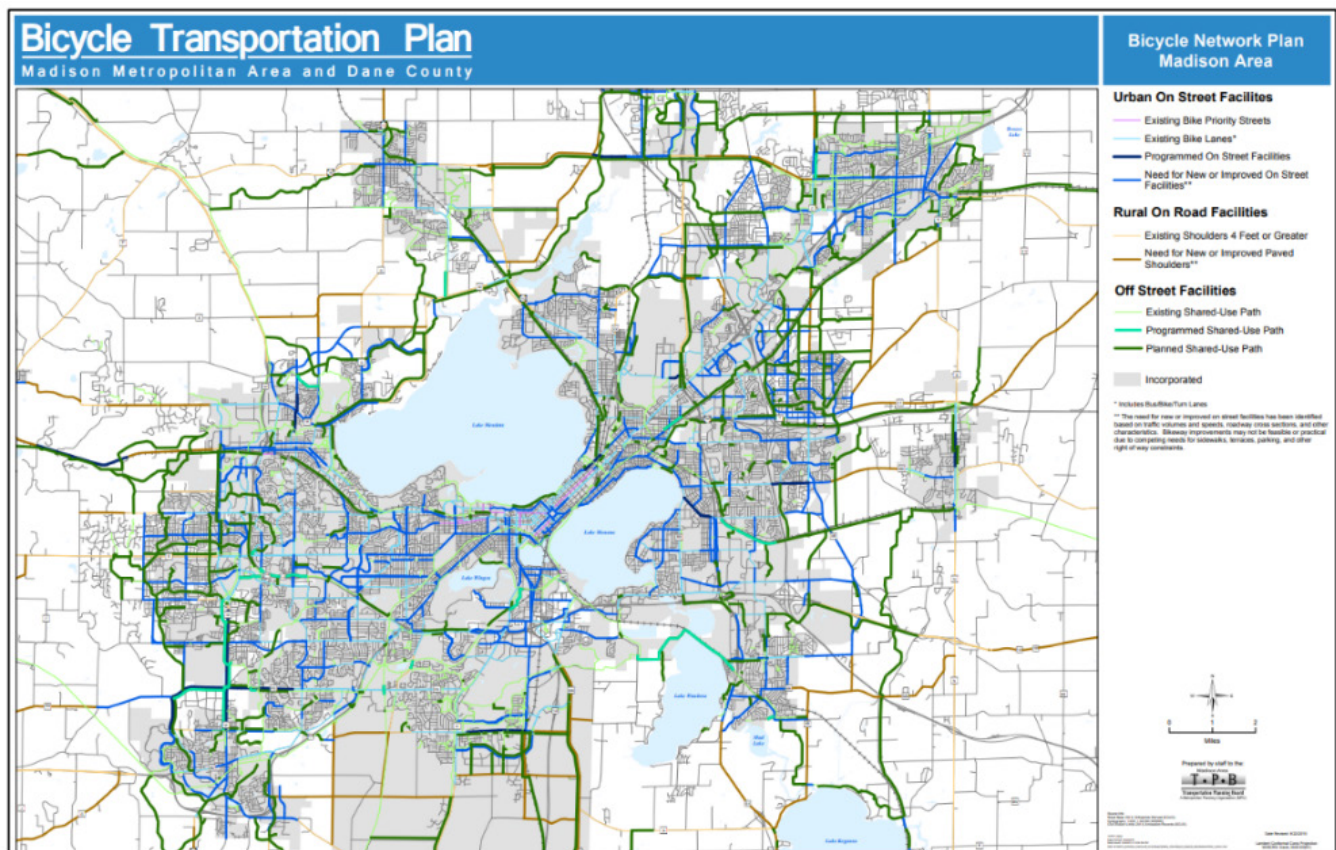
## Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County (2015)

- 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
  - Usage
  - Connectivity
  - Equity
  - Livability
  - Longevity
- The strategies behind the plan include adopting the seven “E’s” to help identify strategies to obtain their goals:
  - Education
  - Encouragement
  - Enforcement
  - Engineering
  - Envisioning (Planning)
  - 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.
- The MPO will begin developing an Active Transportation Plan in late 2024, which will update the 2015 Bicycle Plan and incorporate the pedestrian network.

## 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 are 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.

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

- 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 serious 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 City's Vision Zero Action Plan and analysis differ slightly from the Regional Safety Action Plan due to the difference in priorities, data available and scale.
- 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.
  - 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.
  - 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.

- 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.

## 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 City’s Director of Public Works/City Engineer leads the Pedestrian Safety Task Force and has representatives from engineering, public works, Sun Prairie utilities, neighborhood

navigators, police and fire departments, and building inspection. They specifically focused 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 holding 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:
  - 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.
  - 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.
- The four priority areas will be re-evaluated biennially.
- 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:
  - 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.

- 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:
 

<ul style="list-style-type: none"> <li>• Importance to the regional transportation system</li> <li>• System preservation</li> <li>• Congestion mitigation/TSM</li> </ul>	<ul style="list-style-type: none"> <li>• Safety enhancement</li> <li>• Enhancement of multi-modal options/service</li> <li>• Environment</li> <li>• Equity</li> </ul>
--	---

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

## 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.





# Chapter 4: Engaging the MPO's Communities

Community feedback is critical in ensuring the Plan's applicability and efficacy in the Greater Madison MPO region. Outreach to the community is important as the Plan will be used by the MPO agencies within the region, and other partners to make decisions impacting the community for the foreseeable future.

Robust community engagement and stakeholder outreach was completed as a part of the [Connect Greater Madison Regional Transportation Plan \(RTP\) 2050](#) through 2021. The following activities were conducted to gather community feedback:

See Appendix 2 for the RTP 2050 Public Participation and Responses to Comments.

## COMMUNITY FOCUS GROUP CONVERSATIONS

The effort included three different focus groups with Sun Prairie, Bayview and the Latino Academy focus group which had participants who lived in Madison, Fitchburg, Verona, Sun Prairie, Oregon, Middleton, Blue Mounds and Belleville combined. The Bayview Foundation session also included members from the Hmong community while the Sun Prairie session included seniors with limited mobility. At each of the focus group meetings attendance ranged from 4 to 15 people. The two Latino Academy sessions were facilitated in Spanish. These focus groups all occurred in May, 2021. The key themes of the conversations included:

- Cost of transportation
- Desire for more convenient public transit
- Knowledge and language barriers
- Access for people with disabilities and seniors
- Impacts on family and community
- Bicycling pros and cons

## CONNECT GREATER MADISON 2050 REGIONAL TRANSPORTATION PLAN WEBSITE



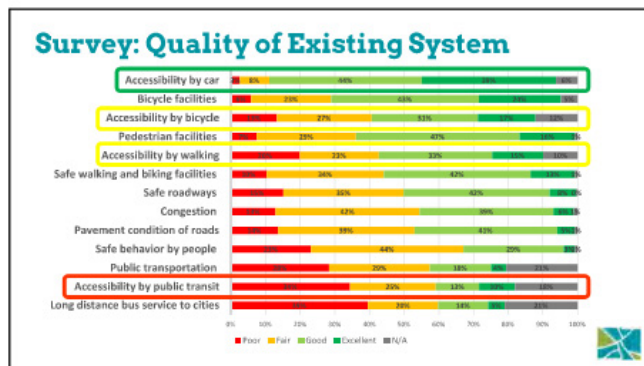
The MPO created a [website for the 2050 RTP](#) to increase public engagement in the planning process and engage residents. The website contains project news, information about the planning process, a timeline and links to related plans and other additional information about the MPO.



Bayview



RTP PUBLIC SURVEY FULL RESULTS



A public survey was conducted where participants could respond to various transportation related questions. The 18 questions focused on the quality of the transportation system, potential projects, perceived issues, policies, funding, performance, and demographics. Participants were able to answer the questions through a multiple-choice method alongside written responses. The survey received 274 responses and included the following key themes:

- Safety
- Bike and pedestrian infrastructure
- Connectivity
- Smart growth
- Equity Considerations
- Transit Accessibility
- Broadband and Telework

The final results of the public survey were summarized and presented at the MPO Policy Board in August 2021.

PUBLIC INVOLVEMENT MEETINGS

Three virtual public involvement meetings were held from Winter 2021 to Spring 2022. Attendance ranged from 5 to 17 residents with backgrounds from nonprofit or advocacy groups, local county government staff or elected officials, as well as some interested community members. The first meeting included an overview of the RTP plan goals and information on the MPO growth. Attendees were polled where they worked and what they believed was the most important transportation issue facing the region. Attendees indicated a variety of answers including expanding transportation funding, improving equity in transportation improving public transportation, planning for automated/driverless vehicles, reducing impacts on climate change, improving walkability and bikability. The second and third meeting contained an updated overview of the planning process as well as more Q&A sessions. All three meetings were recorded and posted to the MPO YouTube page.

RTP COMMENT MAPS

The MPO invited the public to provide feedback through [an interactive map](#) (See Figure 2) of the existing transportation system in the greater Madison area. Participants were able to add pins and lines to indicate the location of their comments. The map was available for comment from August through October 2021 and received over 1300 unique comments including over 627 specific safety concerns, which included the following areas of safety concern:



- Barriers to accessible routes.
- Gaps in network.
- Concentrated in areas developed under auto-centric paradigm.
- Unsafe or otherwise problematic crossings and barriers.
- Concentrated in the Isthmus, near west, and near east of Madison, but also throughout Middleton, SW Madison, S Madison, NE Madison, Fitchburg, McFarland, Sun Prairie, and Waunakee.
- Locations where lack of snow removal poses issues for crossings, connections, or bus stops.



- Train horns, stop consolidation, integrating Monona service, route and schedule variability, requests for water taxi/ferry, and requests for specific origin-destination pairs.
- Suggestions for specific commuter service.
- Service to peripheral areas.
- Suggest inter-city and rail.
- Increased service frequency and capacity.
- Stop comments include problems with access to stops, level of infrastructure or amenities.

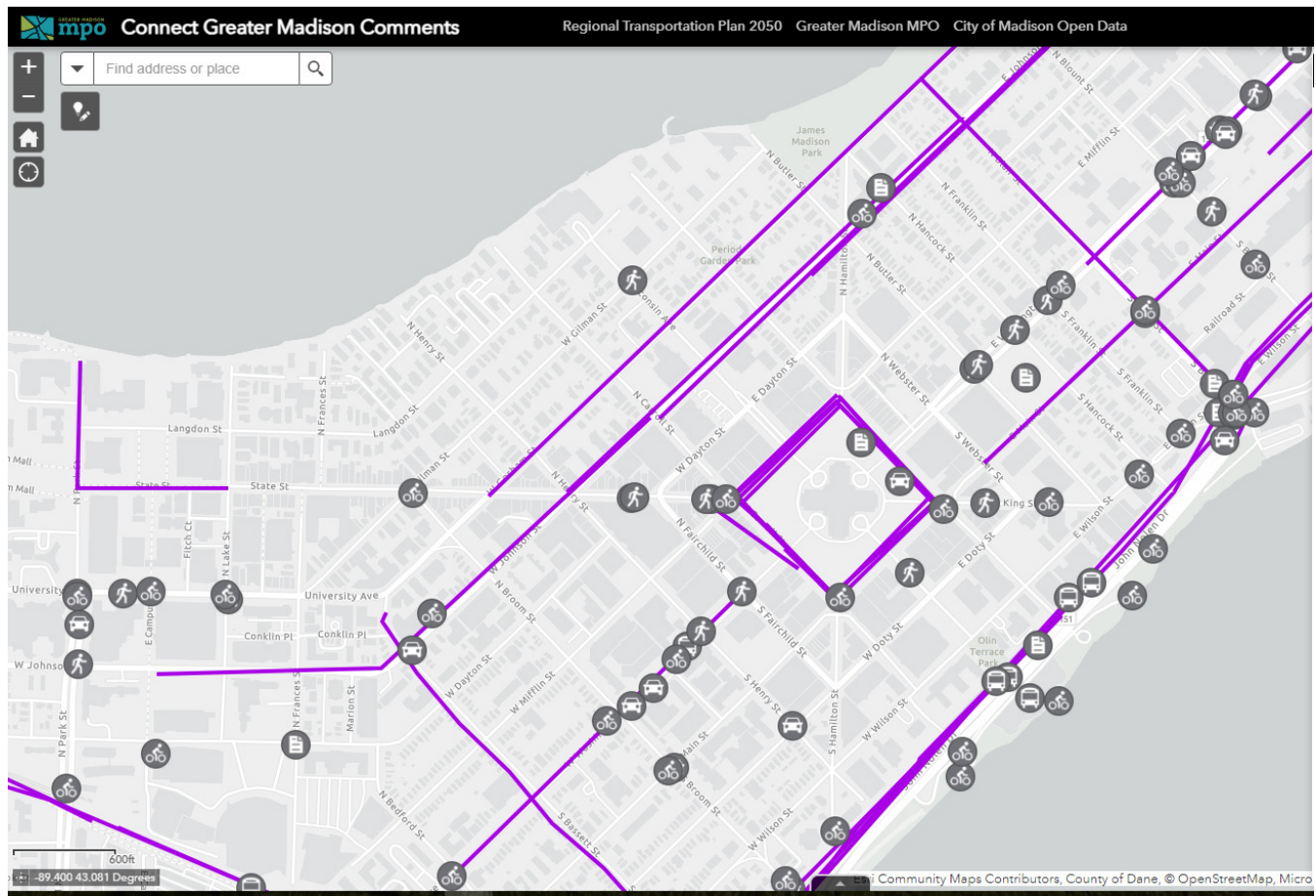


- Requests for new BCycle docks.
- Needed facilities and suggested improvements scattered throughout.
- Road design and crossing, especially in the City of Madison.
- Poor pavement conditions, inadequate snow removal, encroaching foliage, and path/tunnel flooding problems.
- Better speed limit enforcement, suggested policy changes, and requests for additional signage.



- Complete streets, road diets, traffic calming, new roadway connections, design of intersections, interchanges and their attendant features.
- Maintenance comments where lane markings are needed or have worn away.
- Surface condition is poor.
- Operation of intersections and/or drivers ignoring traffic control devices at intersections.
- Turning movement problems, margining/weaving, signal timing, transit lanes, and traffic control devices.
- Speed related comments.

Figure 2 2050 Regional Transportation Plan – Comment Map



**TECHNICAL COORDINATING COMMITTEE**

The MPO’s Technical Coordinating Committee (TCC), which reviews, coordinates, and advises on transportation planning matters advises the Policy Board. The TCC is comprised of engineers, planners, and other professionals who represent local governments and transportation agencies. The TCC meets monthly on the last Wednesday of each month. The TCC has been heavily involved with reviewing and providing feedback through the development of the Greater Madison MPO Safety Action Plan.

Agencies represented on the TCC include:

- City of Fitchburg
- City of Madison Engineering Department
- City of Madison Planning Division
- City of Madison Traffic Engineering Division
- City of Middleton
- City of Monona
- City of Stoughton
- City of Sun Prairie
- City of Verona
- Dane County Planning & Development
- Dane County Highway and Transportation Department
- Federal Highway Administration, WI Division
- Federal Transit Administration, Region V
- Metro Transit
- Village of Cottage Grove
- Village of DeForest
- Village of McFarland
- Village of Oregon
- Village of Waunakee
- Village of Windsor
- WisDOT Bureau of Planning & Economic Development
- WisDOT Southwest Region



## DANE COUNTY TRAFFIC SAFETY COMMISSION



Each year, thousands of Wisconsin residents are injured and killed in traffic crashes. In an effort to prevent these tragedies, in 1971 the legislature created [traffic safety commissions \(TSC\)](#) in every county. These commissions are intended to bring local and state expertise to minimize the incidence and severity of traffic crashes. The Dane County TSC is made up of over 52 public and private organizations representing local law enforcement and first responders, transportation professionals, public health, area hospitals, driver education, and community advocates. The Dane County TSC meets quarterly to review fatal and injury crashes that occurred in the county, discuss traffic safety issues, and identify and implement strategies to make Dane County roadways safer for all.

In 2020 the Dane County TSC received grant funding from WisDOT to: increase the capacity of the TSC through expanding community partnerships; develop a data-driven, system level, action-oriented process model to guide the TSC's work; and develop mechanism for gathering community input from across county to identify

concerns and jointly develop local strategies and mobilize community to take action.

As part of this process, a series of local community traffic safety surveys and listening sessions were held across Dane County. Listening sessions included first responders involving fire/police/EMS, elected officials, public works staff, school districts, and local residents. The listening sessions reviewed local crash data, identified local safety concerns (both general and location specific), and included discussions on safety efforts currently underway in each community. Over 800 responses were received as part of the community safety surveys. The top concerns heard included:

- Bike and Pedestrian safety (including failure to yield to bikes and pedestrians)
- Speed
- Inattentive/Distracted/Aggressive Driving

An inaugural Annual Data Review and Prioritization meeting was held in July 2021. After reviewing the data and hearing about the key takeaways from the local listening sessions, participants identified four emphasis areas and formed work groups to identify action-oriented implementable strategies. The four emphasis areas included:

- Reduce risky driving behavior (speed, distracted/inattentive driving, and occupant protection)
- Reduce impaired driving
- Improve pedestrian safety
- Reduce racial disparities with traffic injuries

The data is reviewed annually, and priority areas (and workgroup plans) identified every two years.

Agencies representing the Dane County TSC include:




- AAA Wisconsin
- AARP Wisconsin
- American Family Children's Hospital / Safe Kids
- Belleville Police Dept.
- Blue Mounds Police Dept.
- CESA 2 Driver's Education
- Cottage Grove Police Dept.
- Cross Plains Police Dept.
- Dane Co. Court Commissioner
- Dane Co. District Attorney's Office
- Dane Co. EMS
- Dane Co. Highway & Transportation
- Dane Co. Sheriff's Office
- DeForest Police Dept
- DeForest Public Works
- Fitchburg Police Dept.
- Fitchburg Public Works
- Greater Madison MPO
- LIUNA Wisconsin
- Madison Metro
- Madison Municipal Court
- Madison Police Dept.
- Madison Traffic Engineering
- Maple Bluff Police Dept.
- Marshall Police Dept.
- McFarland Police Dept.
- Middleton Police Dept.
- Monona Police Dept.
- Mount Horeb Police Dept.
- Oregon Police Dept.
- Public Health Madison & Dane Co.
- RSVP of Dane County
- Safe Communities Madison-Dane Co.
- Shorewood Hills Police Dept.
- SSM Health
- Stoughton Police Dept.
- Sun Prairie Pedestrian Task Force
- Sun Prairie Police Dept.
- Sun Prairie Public Services
- UW Extension
- UW Health Trauma Centers
- UW-Madison Police Dept.
- UW TOPS Laboratory
- UW Transportation Services
- Verona Police Dept.
- Waunakee Police Dept.
- WI Alcohol Policy Project
- WI Bike Federation
- WI Dept. of Transportation/ Bureau of Traffic Safety
- WI State Laboratory of Hygiene
- WI State Patrol
- WI State Capitol Police





## What was heard?

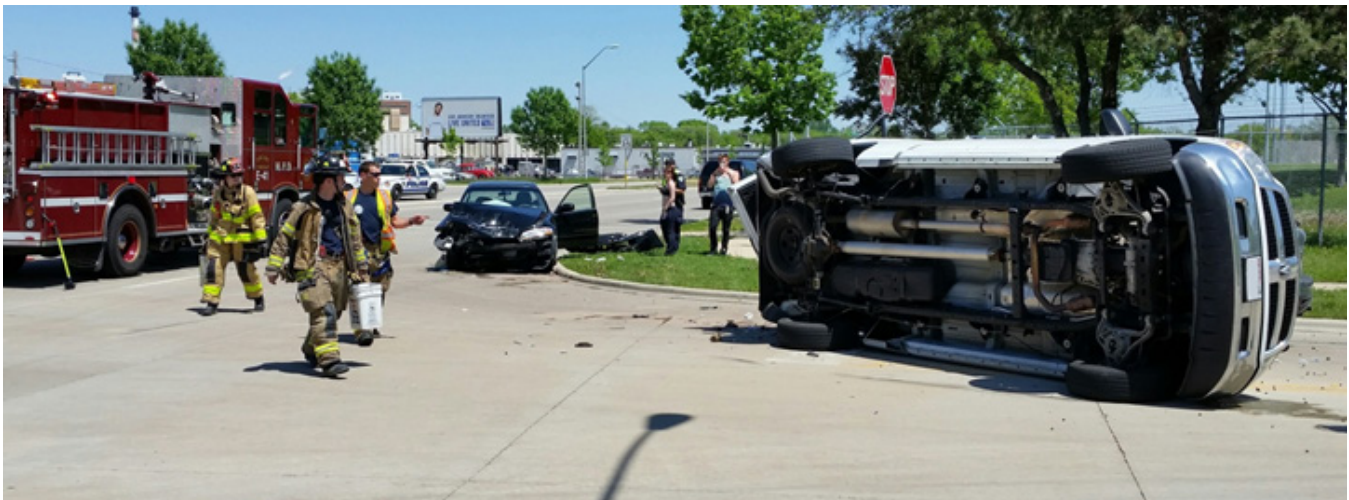
As a result of the robust public outreach and stakeholder engagement, the following key themes were gathered. These key themes assisted in informing the recommended countermeasures as a part of this Safety Action Plan.

 <b>Vehicle and Roadway</b>	 <b>Active Transportation</b>	 <b>Education and Enforcement</b>
<ul style="list-style-type: none"> <li>• Improve pavement conditions</li> <li>• Roadway changes to improve safety (examples include updating pavement markings, adding designated turn lanes, building roundabouts).</li> <li>• Decrease vehicles miles traveled.</li> <li>• Reduce driving speeds.</li> <li>• Increase transportation options for seniors, youth, and people with mobility limitations.</li> </ul>	<ul style="list-style-type: none"> <li>• Unsafe to bike on the street.</li> <li>• More bike paths desired.</li> <li>• More sidewalks are desired, especially in residential areas.</li> <li>• More snow and ice removal on paths.</li> <li>• Improves bike and pedestrian crossing infrastructure, including protected intersections.</li> <li>• Poor driver compliance at pedestrian crossings.</li> <li>• Increase visibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce impaired driving.</li> <li>• Prevent drag racing</li> <li>• Prevent or reduce reckless driving (speed/aggressive driving)</li> <li>• Red light running enforcement</li> <li>• Reduce distracted driving, including using cell phones.</li> <li>• Reduce racial disparities.</li> </ul>

# Chapter 5: Data Evaluation

## Crash Summary and Crash Profiles

Between 2017 and 2020, over 28,000<sup>2</sup> crashes were recorded within the MPO, of which over 600 resulted in fatal or serious injuries. An analysis of these crashes was completed to identify crash trends among three modes: automobile, bicycle and pedestrian. The analysis includes an examination of the crashes by mode by basic crash report variables such as crash characteristics and contextual roadway factors. The crash trends identified the MPO’s crash profiles which highlight specific conditions that account for a large share of fatal and serious injury crashes. These crash profiles may be used by the MPO and region to help prioritize roadway safety investments in the future (See **Appendix 3** for the Crash Profile Memo).



Throughout the safety analysis, crash trends are summarized by “**KA**” indicating fatal and serious injury crashes and “**BCO**,” which includes non-serious injuries. The KABCO injury scale is used and includes the designations shown in Table 1.

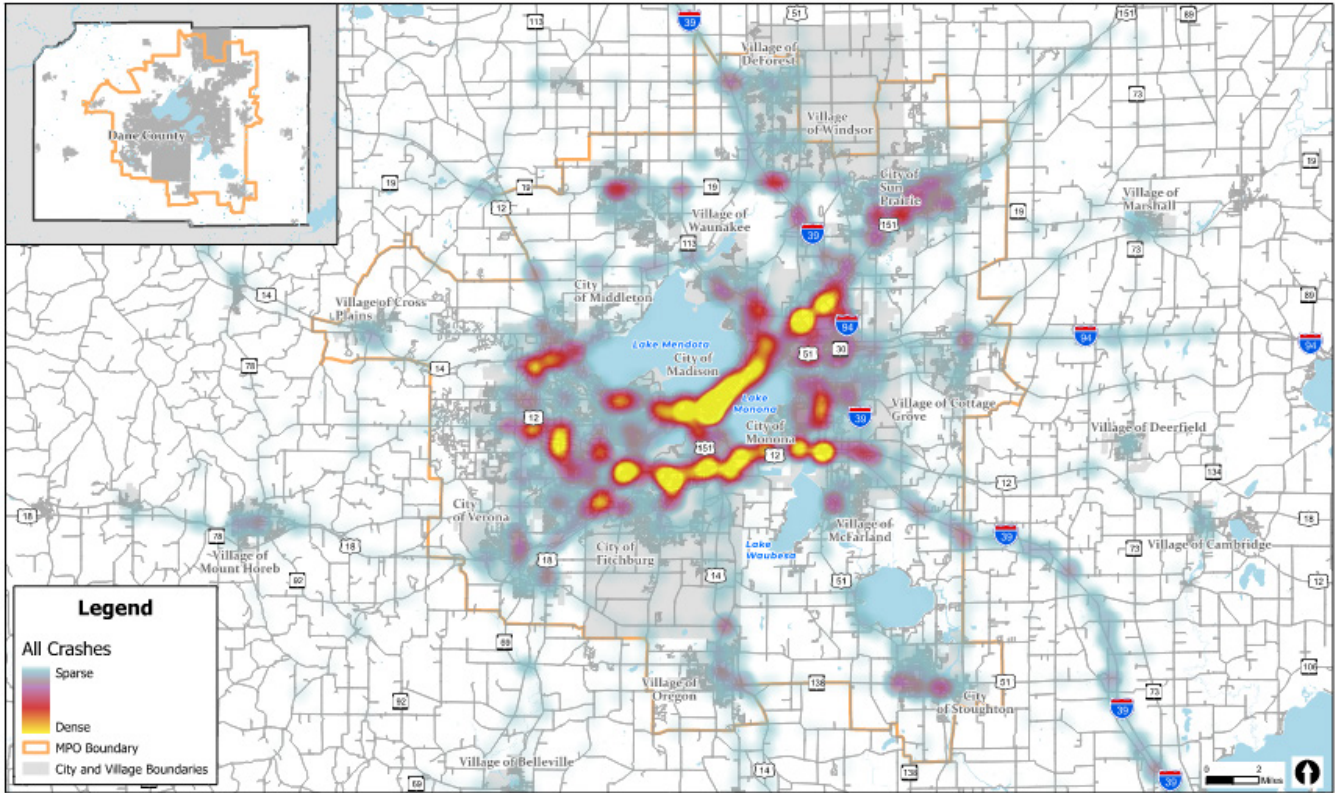
**Table 1. KABCO Injury Scale**

Severe (more injurious)	Non-Severe (less injurious)
<b>K</b> - involves a fatal injury	<b>B</b> - non- incapacitating injury
<b>A</b> - incapacitating injury (serious injury)	<b>C</b> - possible injury
	<b>O</b> - no injury or a property damage-only (PDO) crash

2 Crash Data is from 2017-2020 and included crashes on within 50 ft of a public road and excluded interstate, parking lots, and deer collisions.

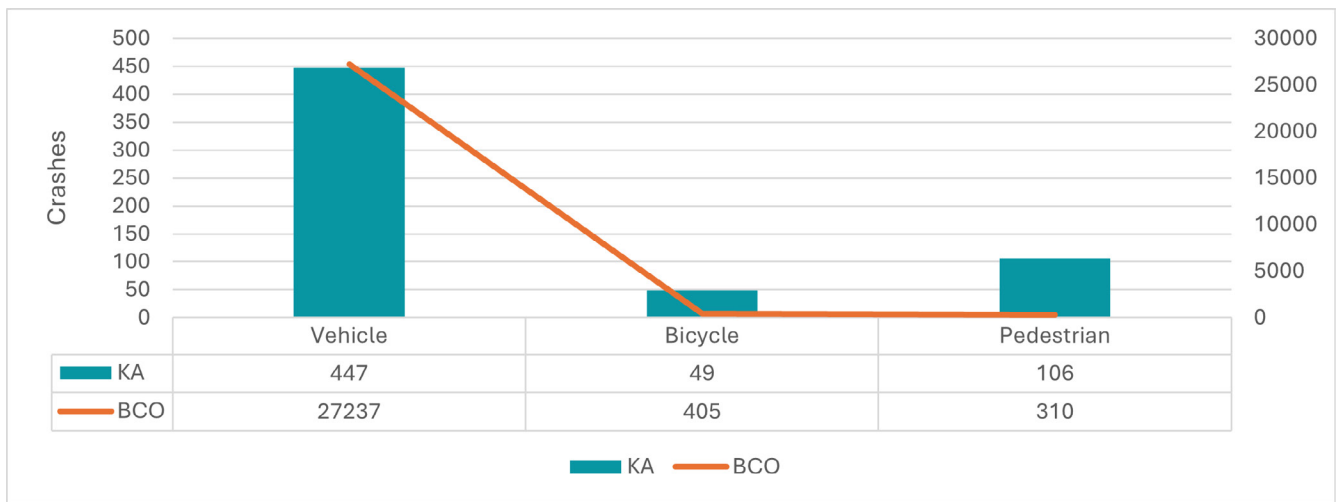
Figure 3 shows the crash density of fatal and serious injury crashes occurring between 2017 and 2020 within the region. The vast majority of serious injury crashes are concentrated around the state’s trunk highway system.

Figure 3 Crash Heat Map (2017-2020)



As seen in Figure 4, the majority of crashes involved automobiles; however, pedestrians were involved in a disproportionate number of serious (KA) crashes compared to vehicle and bicyclists.

Figure 4 Crash Severity by Mode





The Regional Safety Action Plan acknowledges the importance of evaluating behavioral emphasis areas as a part of the safety analysis. Between 2017 and 2020, the region experienced more than 200 fatal and serious injury crashes as a result of impaired driving.<sup>4</sup>

This means that crashes involving impaired drivers were at higher risk of fatal and serious injuries compared to other emphasis areas like distracted or inattentive driving, speeding, and age-related crashes. Building on the efforts by the Dane County Traffic Safety Commission, continued assessment by the region of these emphasis areas is necessary to identify potential opportunities for process improvements within the region. The Dane County Traffic Safety Commission has made great strides to prevent fatal and serious injury crashes by implementing focused enforcement to combat driving while impaired by alcohol or drugs, slowing down for students and more!

Table 2 identifies the specific crash profiles categorized by mode. For each profile, the number of crashes that match the described high-risk theme is provided. Crash severities are summarized at three levels:

- All crashes
- FI - Injury/fatal (FI) crashes, which excludes property damage only
- KSI - Severe injury/fatal (KSI) crashes, which includes KABCO injury level K or A only

### Impaired Driving

25% of all fatal and serious (KA) injury crashes involved impaired driving.

### Teens and Older (65+) Drivers

28% of all fatal and serious (KA) injury crashes involved teen or older drivers.

### Speeding

26% of all fatal and serious (KA) injury crashes involving speed.

### Distracted Driving

15% of fatal and serious(KA) injury crashes involved distracted driving.

### Occupant Protection

19% of fatal and serious (KA) injury crashes involved unbelted passengers and/or no helmet or safety gear (bike and motorcycles).

<sup>4</sup>Behavioral crash facts are from Dane County Traffic Safety Commission and includes crashes from 2017-2020 and includes crashes from the entire Dane County area.

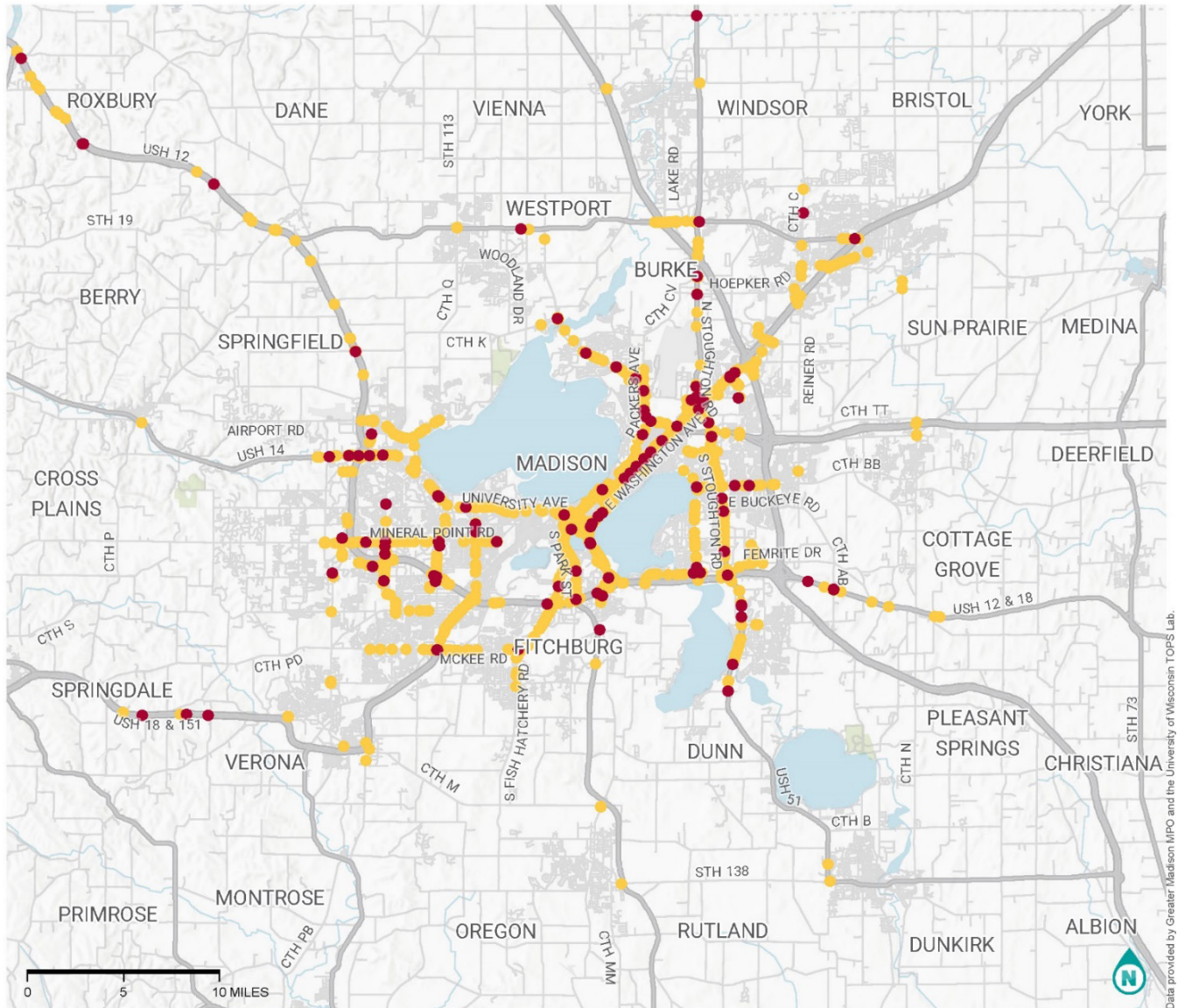


**Table 2 Summary of Crash Profiles**

Profile Name	Mode	Number of FI Crashes	% of Modal FI Crashes	Number of KSI Crashes	% of Modal KSI Crashes
<b>Vehicles</b>					
Multi-Lane Arterials	Vehicle	2,049	32%	121	27%
Turning Vehicles at Signalized Intersections	Vehicle	775	12%	47	11%
Roadway Departure in Rural Areas	Vehicle	293	5%	53	12%
<b>Bicyclists</b>					
Signalized Intersections	Bicycle	76	18%	8	16%
Uncontrolled Intersections	Bicycle	25	6%	8	16%
Roads Without Bike Infrastructure	Bicycle	91	22%	12	25%
Multi-Lane Arterials	Bicycle	65	16%	12	24%
<b>Pedestrians</b>					
Commercial Areas	Pedestrian	136	35%	29	27%
Multi-Lane Arterials	Pedestrian	84	21%	31	29%
Pedestrian Hit & Run Crashes	Pedestrian	41	10%	16	17%
Unmarked Mid-Block Crossings	Pedestrian	66	17%	12	11%

The concentrations of crashes that match each crash profile were mapped for the region. Figure 5 illustrates the concentration of severe and fatal (KA crashes only) crashes along with lesser injury crashes (BC crashes only) for crash profile 1 – Vehicles on Multi-Lane Arterials. Additional maps of the crash profiles can be viewed in Appendix 3 and can also be viewed at the [Regional Safety Action Plan Online Map](#). The maps are accompanied by a table to highlight the number and type of crashes contributing to each profile.

Figure 5 Crash Profile Map - Vehicles on Multi-Lane Arterials



VEHICLES ON MULTI-LANE ARTERIALS

This profile analyzes crashes that resulted in a severe or fatal injury on multi-lane arterials with posted speed limits of 30 mph or greater.

CRASH SEVERITY

- Severe or Fatal
- Lesser Injury



## Developing a High Injury Network

A High Injury Network (HIN) is a collection of street segments that have the highest concentrations of serious crashes. A HIN not only highlights the most crash-prone segments of corridors within a study area, but it also facilitates the selection of project limits for projects to address the safety issues on those highlighted segments. This moves beyond typical crash history and allows for a better understanding of the types of roadways and intersections in the region where users are the most at risk. This allows the MPO to proactively work to minimize the occurrence and severity of crashes into the future.

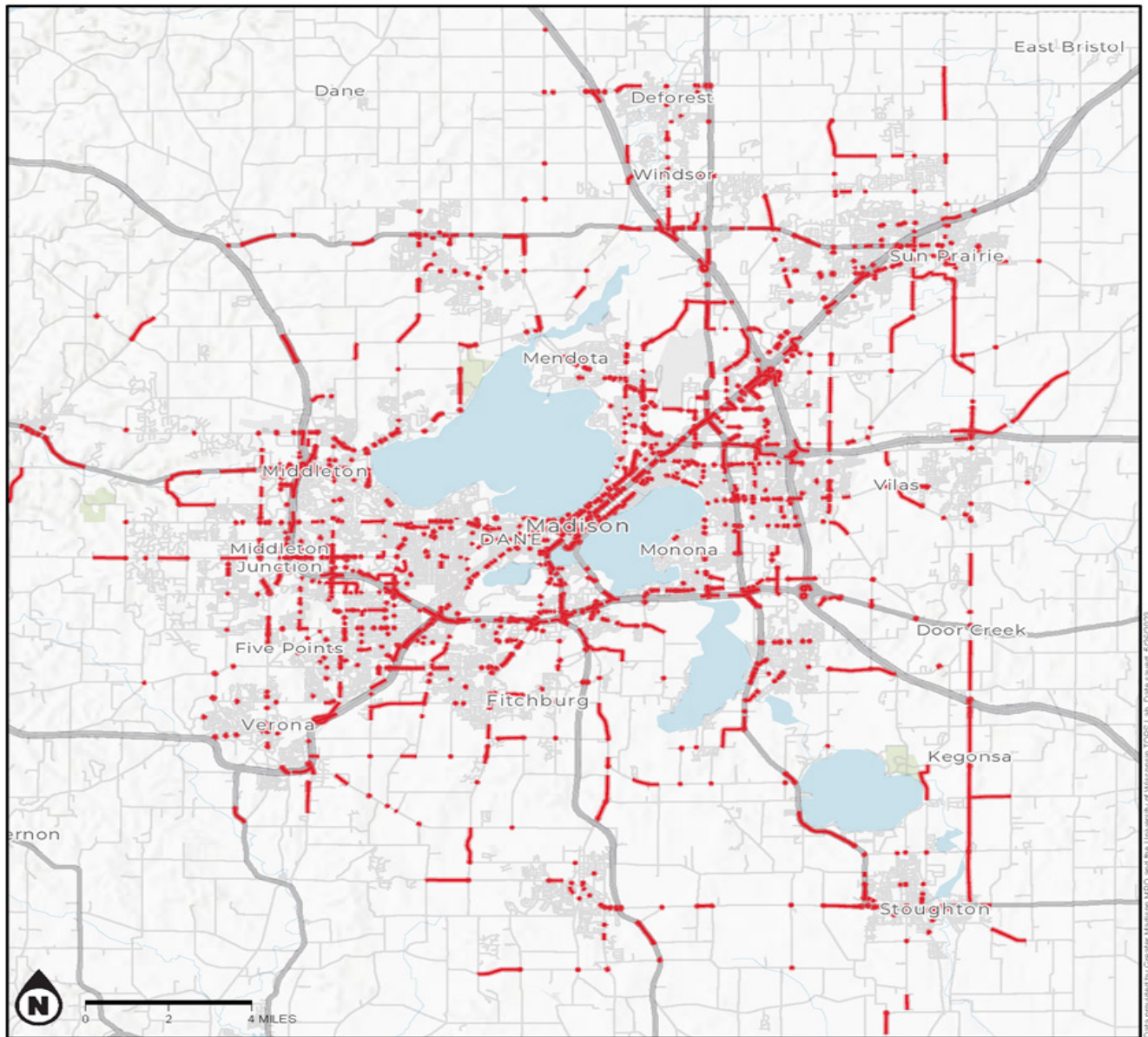
A HIN is developed by calculating the density of severe crashes along all streets in a study area and selecting minimum crash density thresholds for including segments in the HIN. The goal is to select a threshold for each mode of transportation that results in neither too large nor too small a portion of the network being highlighted. In cases where there are too few severe crashes or the crashes are too spread out, even the lowest reasonable threshold won't result in any segments highlighted. For a more detailed description of the methodology in the development of the MPO's HIN by the Traffic Operations and Safety Laboratory (TOPS Lab) at the University of Madison Wisconsin, see **Appendix 4**.

### OVERVIEW OF RESULTS

The HIN analysis included K, A, B, and C crashes between a four-year period from 2017 through 2020. While a 5-year time period is traditionally used in collision analyses, the Wisconsin crash reporting format changed at the beginning of 2017, therefore increasing the complexity of collision reporting with data organized in multiple formats. The analysis primarily considered arterial and collector roadways with some additional roadways and intersections. The analysis was based not only on the number of observed serious crashes, but also considered identifying long-term trends in collision patterns that account for regression to the mean. See **Appendix 4** for HIN Considerations and further detail on the statistical analysis and potential future use.

Figure 6 illustrates the combined results of the segments and intersection HIN analysis for the region. See **Appendix 5** for HIN maps for each community within the region. The HIN can also be viewed at the [Regional Safety Action Plan Online Map](#).

Figure 6 Madison MPO High Injury Network (2017-2020)



Data provided by Greater Madison MPO and the University of Wisconsin TOPS Lab. Date saved: 5/26/2023

### MADISON MPO HIN (2017 - 2020) SEGMENTS AND INTERSECTIONS

HIGH INJURY NETWORK  
— HIN Roadway or  
Intersection Segment

MADISON MPO  
SAFETY ACTION PLAN

## Equity Analysis

### WHAT DOES EQUITY MEAN?

According to the U.S. Department of Transportation, equity in transportation seeks fairness in mobility and accessibility to meet the needs of all community members. A central goal of transportation is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally disadvantaged.

### DOES EQUITY APPLY TO THE GREATER MADISON MPO?

Yes. The MPO is committed to understanding how the transportation network relates to areas of equity concern around the region to distribute investments fairly, taking into consideration current inequities and that environmental justice populations are not disproportionately impacted. As a part of the regional Transportation Improvement Plan (TIP) from 2021–2025 and 2022–2026, the MPO defined two tiers of Environmental Justice (EJ) Areas based on the concentration of low-income and racial/ethnic minority residents. The score-based effort used US Census data to identify concentrations of minority (non-White and/or Hispanic) and low-income residents (those with household incomes below 150% of the federal poverty level). These two metrics formed the basis of a Minority Score and Poverty Score, additional adjustments to scores were considered based on local understanding such as high proportions of students eligible for free and reduced-price school lunches. The second tier of EJ Areas considers slightly lower concentrations of vulnerable populations than the Tier 1 EJ Areas.

### GREATER MADISON MPO EQUITY ANALYSIS

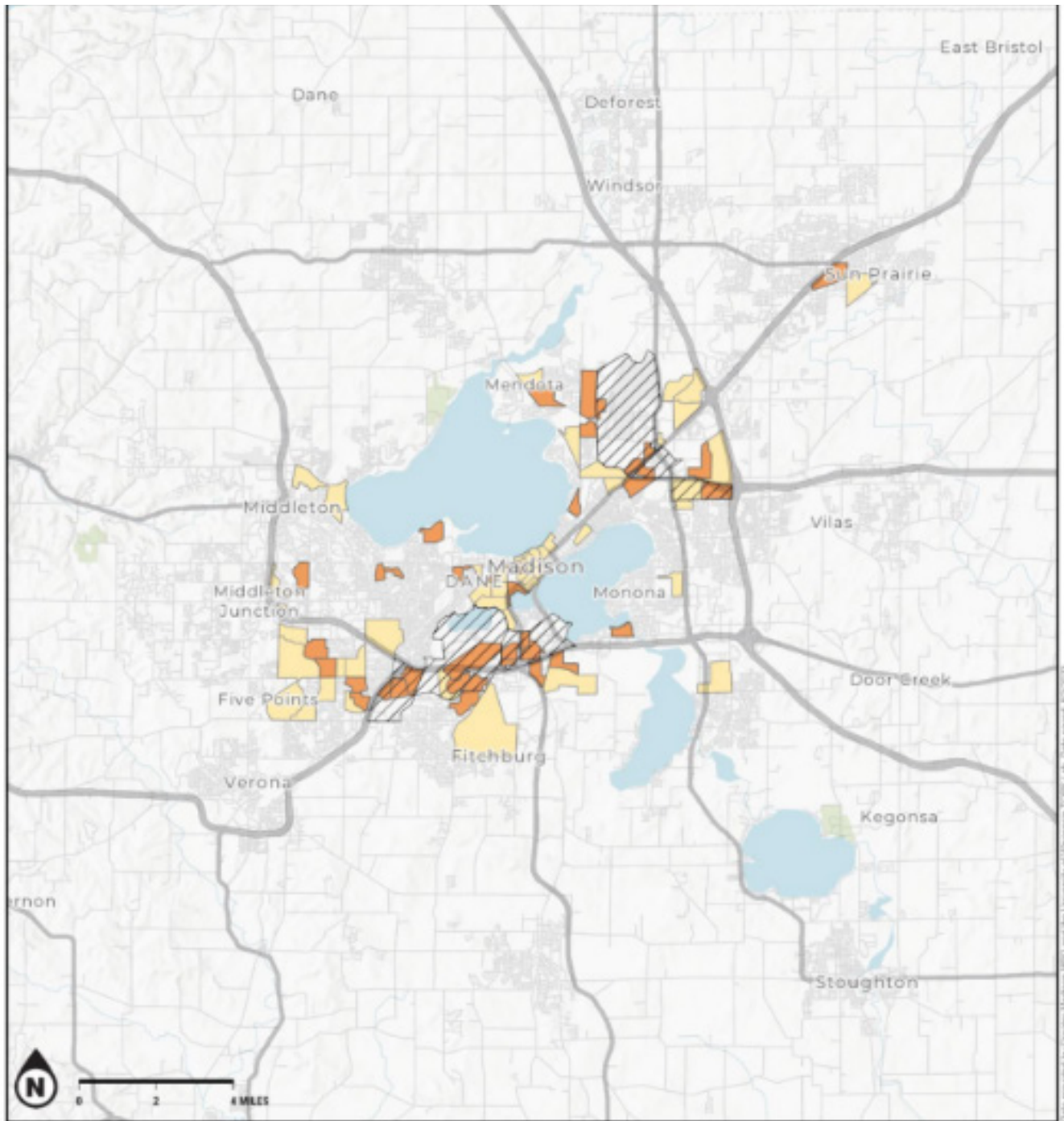
Expanding on the MPO's defined Tier 1 and Tier 2 Environmental Justice Areas, the MPO also reviewed the Climate and Economic Justice Screening Tool (CEJST) from the US Council on Environmental Quality. The tool identifies Census tracts that are considered underserved based on environmental, climate, socioeconomic, or other burdens. Categories include health, housing, legacy pollution, transportation, workforce development, and others.

The MPO Tier 1 and Tier 2 EJ Areas were mapped alongside the CEJST areas in Figure 7. This map illustrates the variation between the regional EJ Tiers and the federal designation. For example, the CEJST Tool designates the entire Dane County Regional Airport as an underserved area, while the MPO EJ Tiers highlight the residential areas on the perimeter of the airport that more accurately reflect where burdened residents live. Another difference is around the University of Wisconsin Arboretum. The federal designation includes the entire Census tract, while the Madison MPO designation highlights only the most affected block groups where burdened residents live.

The MPO EJ Tiers were used in the prioritization methodology to identify potential locations where future roadway safety investments could be made.

For more information on the Equity Analysis methodology, see **Appendix 6**.




Figure 7 Comparison of USDOT and Greater Madison MPO Equity Areas



### ENVIRONMENTAL JUSTICE AREA COMPARISON

MADISON MPO SAFETY ACTION PLAN

### ENVIRONMENTAL JUSTICE AREA

-  Climate and Economic Justice Screening Tool - Disadvantaged Area
-  Madison MPO - Tier 1
-  Madison MPO - Tier 2



## Chapter 6: Taking Action – Toolkit

The Greater Madison MPO identified the following countermeasures for consideration to address the region's high-risk themes (See crash profiles for more information). The countermeasures include data-driven and proven safety strategies from [Federal Highway Administration \(FHWA\) Proven Safety Countermeasures](#), [FHWA Step Guide for Improving Pedestrian Safety at Uncontrolled Intersections](#), and [Crash Modification Factor Clearinghouse](#). The Technical Coordinating Committee and communities within the region also provided input on potential countermeasures they would consider; therefore, consolidating the list to a focused toolkit. Each countermeasure addresses at least one of the high-risk themes identified in the crash profiles. See the following chapter (Chapter 10 Road to Zero) for the systemic implementation of these countermeasures.



## Engineering Countermeasures

The MPO and the communities within the region may consider the following engineering design countermeasures to address high priority locations identified within this Plan.

Countermeasure	Crash Modification Factor	Estimated Cost <sup>5</sup>
Speed safety cameras	54% crash reduction	\$50,000 to \$125,000
Reduce lane widths	Not available	\$2,000 to \$25,000
Road diets (lane configuration)	47% crash reduction	\$15,000 to \$125,000
Backplates with retroreflective borders	15% crash reduction	\$4,000
Dedicated left/right turn lanes	14-26% crash reduction	\$250,000
Roundabout/Mini Roundabout	61% crash reduction	\$100,000 to \$500,000
Flashing yellow arrow	37% crash reduction	\$50,000 to \$100,000
Wider Edge Lines	18% crash reduction	\$9,000
Enhanced Delineation for Horizontal Curves	28% crash reduction	\$5,000
Longitudinal Rumble Strips and Stripes on Two-Lane Roads	Not available	Not available
Median Barriers	44-56% crash reduction	\$25,000 to \$50,000
Corridor Access Management	25-31% crash reduction	\$360,000 per mile
Leading pedestrian interval Turning restrictions	60% crash reduction	\$25,000 per intersection
Parking restriction on crosswalk approach	20% crash reduction	\$15,000
Advance "yield here" sign and stop bar	25% crash reduction	\$300 per sign
Remove sightline obstructions	38% crash reduction	Not available
Lighting	42% crash reduction	\$4,800 per streetlight
Rectangular Rapid Flashing Beacons	47% crash reduction	\$50,000
Pedestrian Hybrid Beacons	69% crash reduction	\$100,000 to \$170,000
Retroreflective strips on stop sign posts	Not available	\$2,500
Bicycle lanes/boulevard	30-49% crash reduction	\$5,000 per mile
Bike lanes with buffer/separated from traffic	53% crash reduction	\$500,000 per mile
Paved Shoulder	30-49% crash reduction	\$5,000 per mile
Sidewalks	40% crash reduction	\$80,000 per mile
Medians and Pedestrian Refuge Islands in Urban and Suburban Areas	46-56% crash reduction	\$25,000 to \$50,000 per mile
Appropriate speeds	26% decrease in fatalities	Not available
In-street pedestrian crossing sign	Not available	\$240 per sign
Curb extension	30% crash reduction	\$10,000 to \$20,000
Pedestrian countdown timers	9% crash reduction	\$12,000
No Right Turn on Red	Not available	\$100,000
Variable speed limits	34% crash reduction	Not available
Dynamic speed feedback sign	5-7% crash reduction	\$30,000 per location

<sup>5</sup>The costs in the table are planning level estimates provided by agencies prior to 2023. Costs will vary by year, vendor, location, size, etc.

## Non-Engineering Countermeasures

Not all approaches to improving roadway safety in the Greater Madison MPO include physical improvements or changes to the system. A theme for non-engineering countermeasures to improving roadway safety is ongoing diligence on the part of the MPO and its partners in having a comprehensive approach to roadway safety.

### CORRIDOR STUDIES

A corridor study is a planning project that characterizes and evaluates roadway conditions, whether existing or for the future. The goal of the study is to provide recommendations for infrastructure projects that address concerns highlighted by the study. Once the corridor study is adopted, implementation can begin which can lead to funding for the project, additional studies and/or policy updates.

### SPEED MANAGEMENT

Speed management programs provide a framework on how to create a safe environment for all road users across a specific road network. A speed management program aims to address factors that influence speeding. This includes user behavior, roadway design, land use, traffic behavior and law enforcement. Along with identifying issues, countermeasures are to be identified that are effective in management speeds. The outcome of developing the plan is to evaluate the effectiveness of the solutions and thus reduce speeding-related fatalities and injuries as well as increasing the safety experience for all road users.

### LIGHTING MANAGEMENT

Lighting management programs create a plan to strategically place lighting infrastructure for the benefit of all road users. Lighting management plans particularly emphasize resolving pedestrian safety issues as this vulnerable user group is at significant risk during the night. Once implemented, lighting infrastructure will provide a visual environment that is safe for road users during hours of darkness. Lighting management plans may also consider and investigate using new lighting technology to enhance the safety of the network.

### NEW EDUCATION CAMPAIGN

A new education campaign helps connect people to their transportation options which leads to the promotion of safety and wellbeing of all users. Key services of a campaign may include social media, graphic design, web development and in person engagement as well as research and innovation to involve stakeholders in the deployment of a new or existing program, policy, or infrastructure improvement.

### ROAD SAFETY AUDIT

A Road Safety Audit estimates and reports road safety issues as well as identifying specific improvements for all road users. A team independent from the project conducts the audit. Road safety audits may specifically focus on vehicles, pedestrians, motorcycles or a specific combination of users. Understanding of road user capabilities and limitations is essential for a road safety audit. These audits can be utilized at any stage in the project development process. Road safety audits can be used for projects ranging from minor to major in size.

### PEDESTRIAN EDUCATION/VISIBILITY



The visibility of pedestrians can be affected by obstructed views, lighting conditions, and parked vehicles. The safety issues that arise from this can be resolved with pedestrian education campaigns that engage the community in the planning process to make the transportation network more visible and safer to all road users. Brochures, news articles, social media announcements and videos, and poster materials can be developed to educate road users about pedestrian safety to improve user experience.





### SAFE ROUTES STUDIES

“Safe Routes to School” has been a longstanding program that uses a variety of education, engineering and enforcement strategies that help make routes safer for children to walk and bicycle to school and encouragement strategies to entice more children to walk and bike. The MPO and their partners identified improving walking and biking access to schools and to park facilities as a priority.

Based on public input and analysis of crash data, a Safe Routes to School is highlighted as a potential countermeasure to consider in this Plan that will improve walking and biking access near schools. However, additional infrastructure improvements and other strategies may be necessary to improve walking and biking access to schools and parks. Therefore, a specific study of access to these facilities is recommended in partnership with schools within the MPO and local parks departments to ensure a comprehensive approach to safer walking and biking access.

### HIN CORRIDOR ENHANCED ENFORCEMENT

The high injury network (HIN) developed through this Plan’s in-depth analysis of crash data provides an opportunity to focus not only on engineering countermeasures, but also non-engineering countermeasures, such as focused law enforcement and traffic monitoring efforts.

### IMPROVING TRAFFIC RECORDS AND COORDINATION

Capturing accurate and thorough crash data is a constant challenge experienced nationally. Although accuracy can be improved by automating crash data with the use of cameras that capture images of violations or crashes; the use of cameras are not widely used or accepted. The coding and classification of crash data can also be assessed and improved by making training programs available for law enforcement to report on bicycle and pedestrian crash as well as racial demographics. This can also include the expansion of data attributes to identify more information about the given crash. Near miss incidents are another major gap in our understanding of roadside safety. Near miss reporting can improve the understanding of how the circumstances of a crash can arise. Continued coordination is also necessary with law enforcement, EMS and hospital records.



## DEMONSTRATION PROJECTS

Demonstration projects use materials to show what future changes may look like to public agencies, partners, and the public. They are designed for the short-term, and the cost of a demonstration project is significantly less than a final infrastructure project. Demonstration projects are useful as stakeholders can evaluate the project before making any permanent infrastructure changes. These projects also inspire action, help gather data and increase public engagement. See [MnDOT Demonstration Project Implementation Guide, 2019](#) for more information on best practices for a quick-build approach.

### Traffic calming demonstration

- Traffic calming demonstration projects may include using temporary materials to create a median island, traffic circle, or a parklet to reduce or slow traffic in the short-term. The goal of the demonstration may also aim to increase the safety of active transportation methods. To evaluate the effectiveness, surveys, interviews, and counts may also be recorded during the process.

### Bike lanes/ trail demo

- Using temporary materials, bike lanes can be added by creating a buffer to prevent cars from utilizing the given demo project's location. Materials may include paint, tape, bike lane-related signs, or flexible posts for separated bike lanes. Existing lanes for automobiles can also be reduced to make space for a bike lane demonstration project. Bike lane demos are generally low-cost.

### Midblock crosswalk installation demo

- Midblock crosswalks can be demonstrated using spray paint. The crosswalk markings may be applied to a project location where pedestrian traffic is anticipated and encouraged. The goal of the project is to see if the crosswalk will reduce potential conflicts between motorists and pedestrians. The effectiveness of a midblock crosswalk demo can be evaluated by driver stop/yield compliance, interviews, and surveys.

# Chapter 7: Road to Zero

## GROWING SAFETY CULTURE WITHIN THE GREATER MADISON MPO

Foundational change has already begun within the Greater Madison MPO. The MPO staff and the communities within the region, as well as Dane County, continue to identify opportunities to address transportation safety and change the safety culture within the region. Several local agencies have completed or are in the process of developing their own Vision Zero plans. The cultural actions listed below in Table 3 Cultural Actions will support the region’s goal to achieve zero traffic deaths and severe injuries on streets within the MPO by 2040. Further, they will serve as the groundwork for the implementation of countermeasures identified through this Safety Action Plan’s prioritization process.

**Table 3 Cultural Actions**

#	Action	Timeline
CA.1	MPO Policy Board adopts this Safety Action and vision zero goal.	Q2 2024
CA.2	Share the RSAP analysis including GIS data to all local agencies within the region for local analysis and identification of countermeasures to implement.	Q4 2024
CA.3	Continue to engage the MPO’s Technical Coordinating Committee serving as the Regional Safety Action Plan planning structure to monitor progress.	Continuous
CA.4	Maintain opensource data and resources such as Streetlight data so local agencies can continue to request and conduct analysis.	Continuous
CA.5	Coordinate joint regional applications to address regional roadway safety priorities to include an application for the Safe Streets and Roads for All Grant Program	Q4 2026
CA.6	Identify scoring considerations to incorporate the prioritization from this RSAP (and other local vision zero plans) as a consideration to programs and project funding sources such as HSIP and STBG.	Q1 2025
CA.7	Incorporate the HIN, Crash Profiles, and results of the prioritization results into future plan updates.	Continuous
CA.8	Continue to evaluate emphasis areas and behavioral crash data into future RSAP updates	Continuous

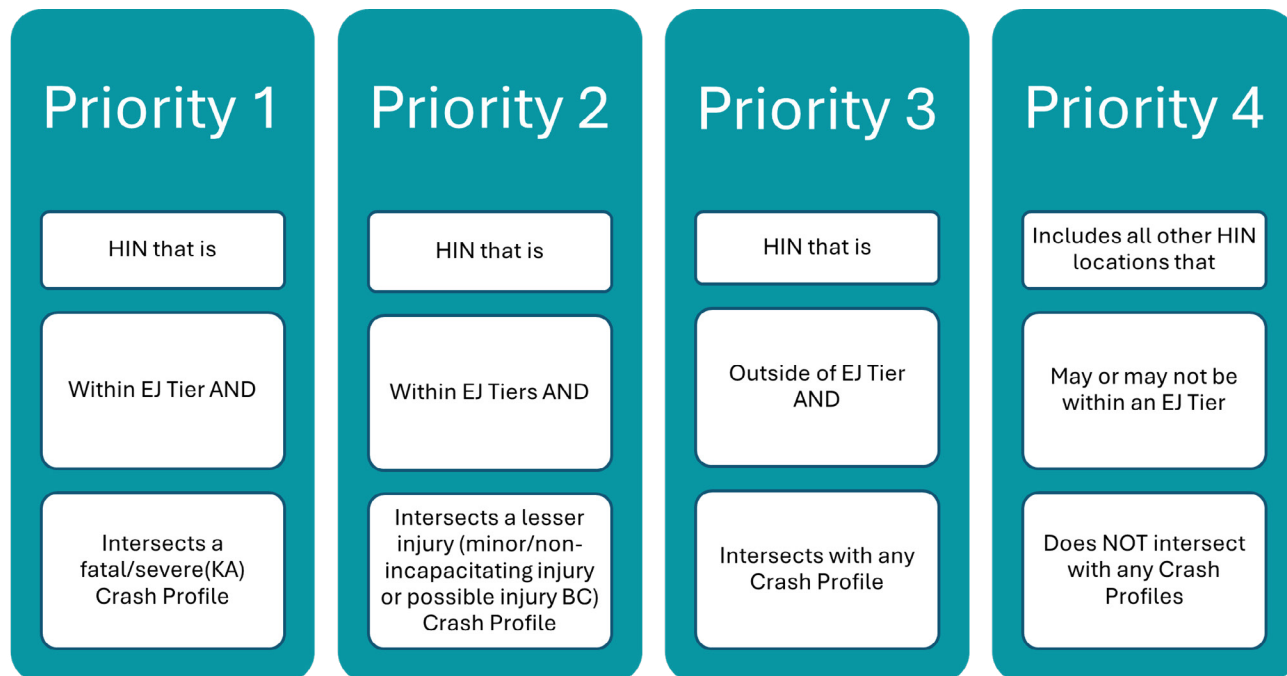
## PRIORITIZATION - HOW TO USE THE DATA EVALUATION

Using the eleven Crash Profiles and EJ Tiers identified in Chapter 8 – Data Evaluation, a subset of the HIN was prioritized for safety investments. The prioritization will help the MPO and the local agencies to focus safety interventions on a subset of high-crash corridors and intersections. These priority investment locations consist of locations along the HIN with particularly high crash densities and either intersect or fall within the following:

**Crash Profiles** – Crash profiles highlight specific conditions that account for a large share of fatal and serious injury crashes in the MPO region. The crash profiles are mapped as a crash point by mode. Eleven crash profiles were identified.

**Equity Tiers** – Environmental Justice (EJ) tiers were defined by the MPO as a part of the data evaluation. They are based on the concentrations of low-income and racial/ethnic minority residents.

To prioritize the investment locations, the following criteria were used:



The criteria were applied to each of the eleven crash profiles resulting in eleven prioritization maps. Each map includes Priority 1-3, which intersects crash profiles, unlike priority 4. Priority 1 is considered the highest priority to be addressed first, however the MPO and local agencies will evaluate implementation based on available funding, community requests, and programmed

adjacent investments. Some locations lower on the priority scale may be elevated due to the proximity of existing planned and programed infrastructure improvements.

Figure 8 - 18 identifies the priority investment locations for each of the Crash Profiles. To see a more detailed map of the region, see the [Regional Safety Action Plan Online Map](#).

Figure 8 - Prioritization - Profile 1 Multi-lane Arterials (Vehicle)

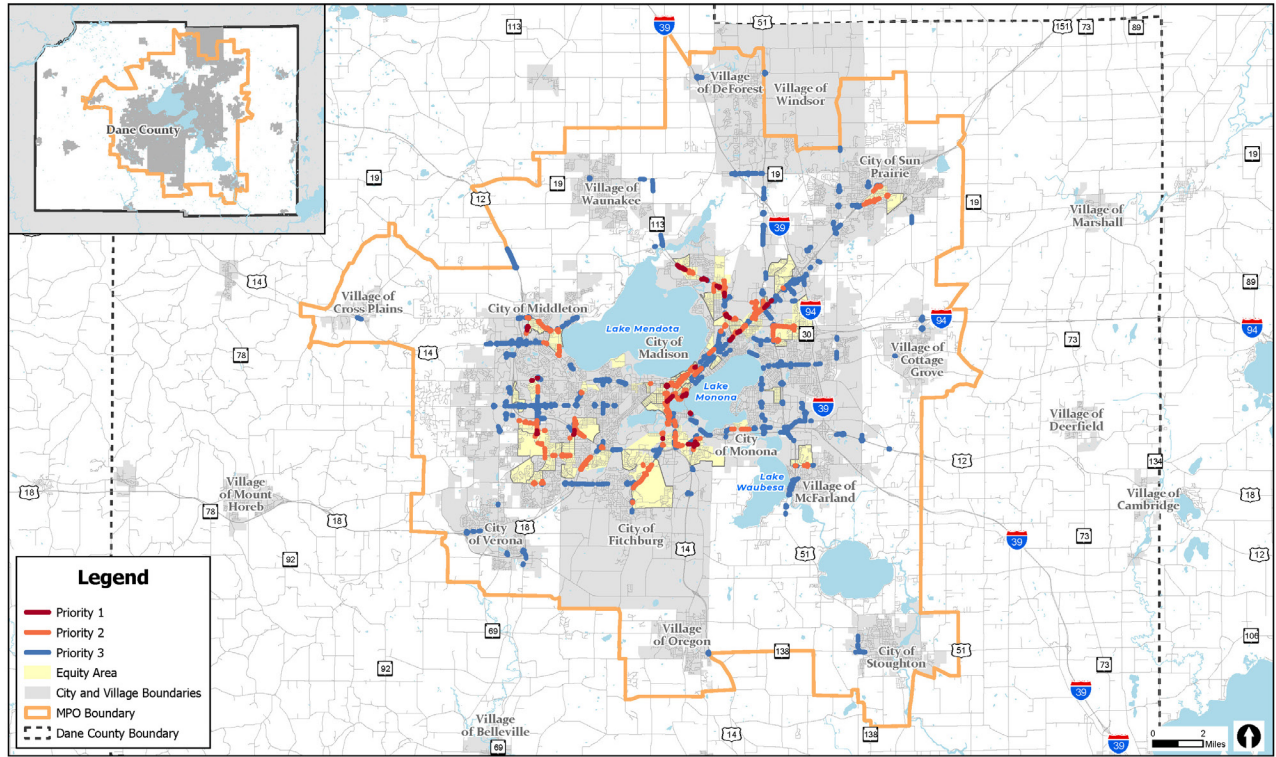


Figure 9 - Prioritization - Profile 2 Turning Vehicles at Signalized Intersections (Vehicle)

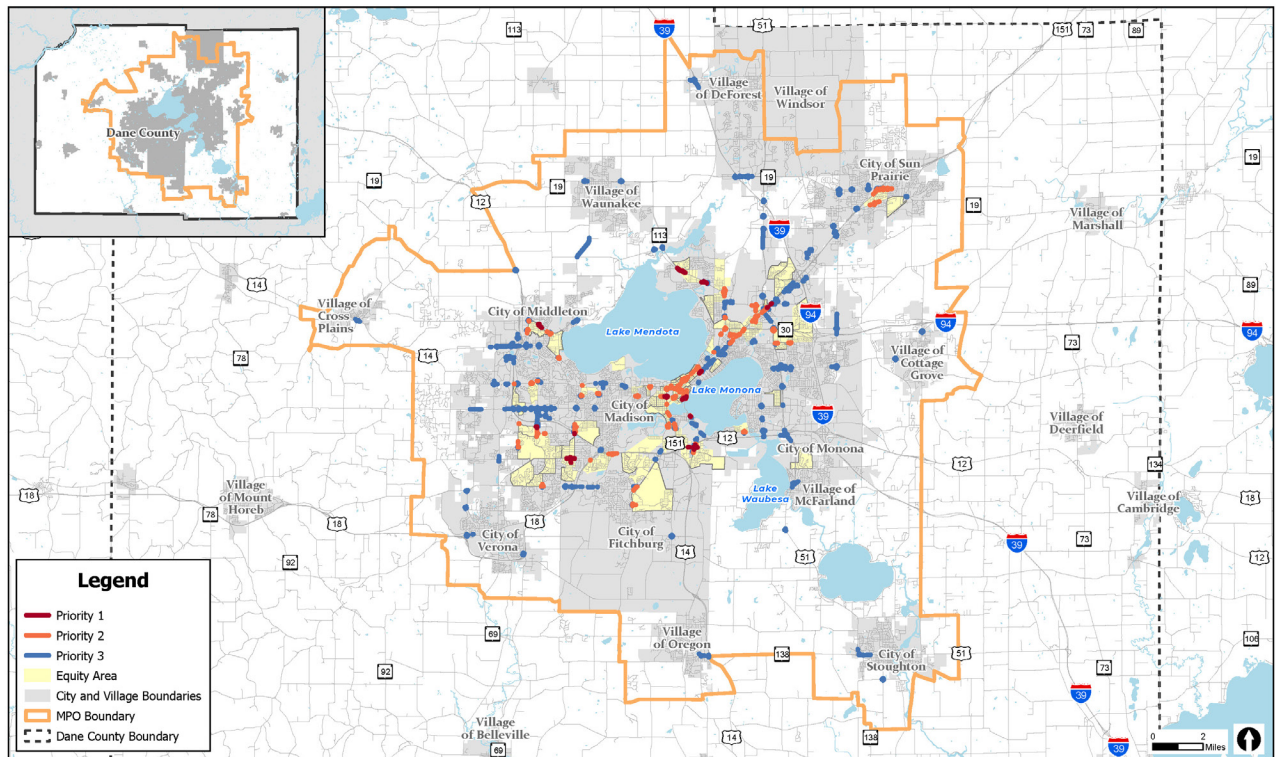




Figure 10 Prioritization - Profile 3 Roadway Departure in Rural Areas (Vehicle)

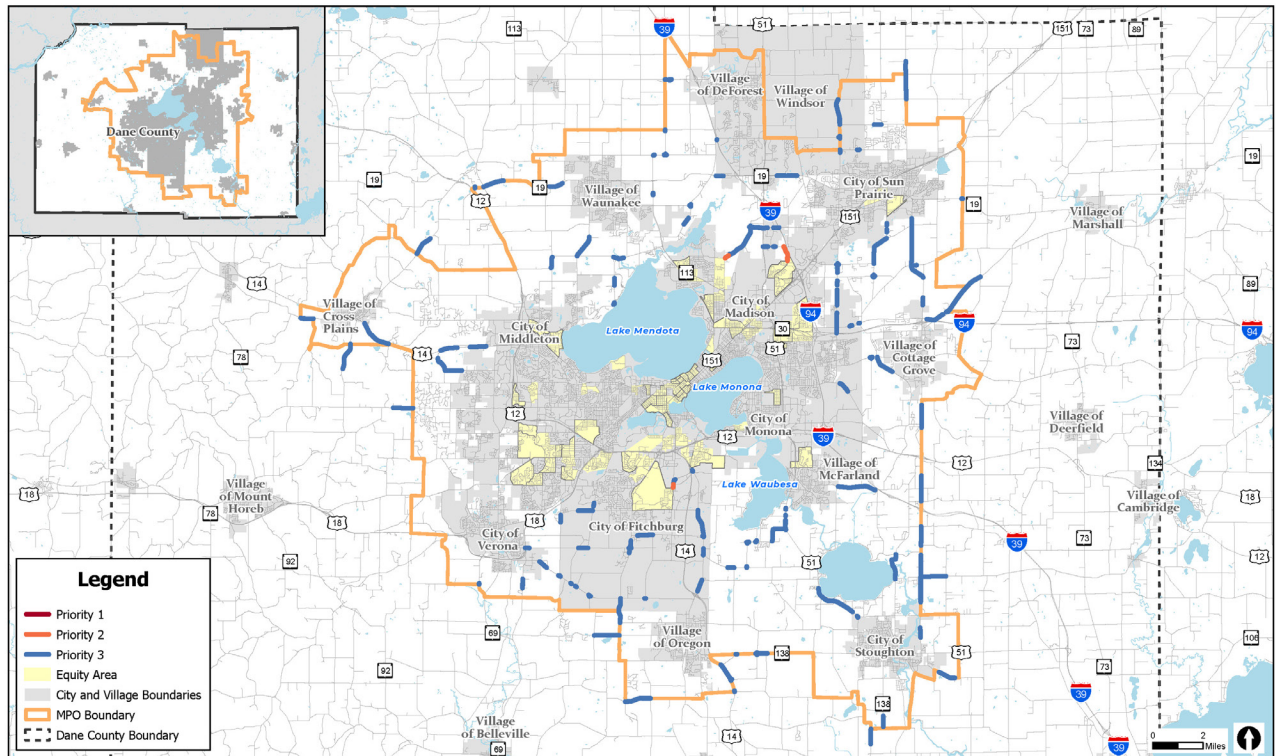


Figure 11 - Prioritization - Profile 4 Signalized Intersections (Bicycle)

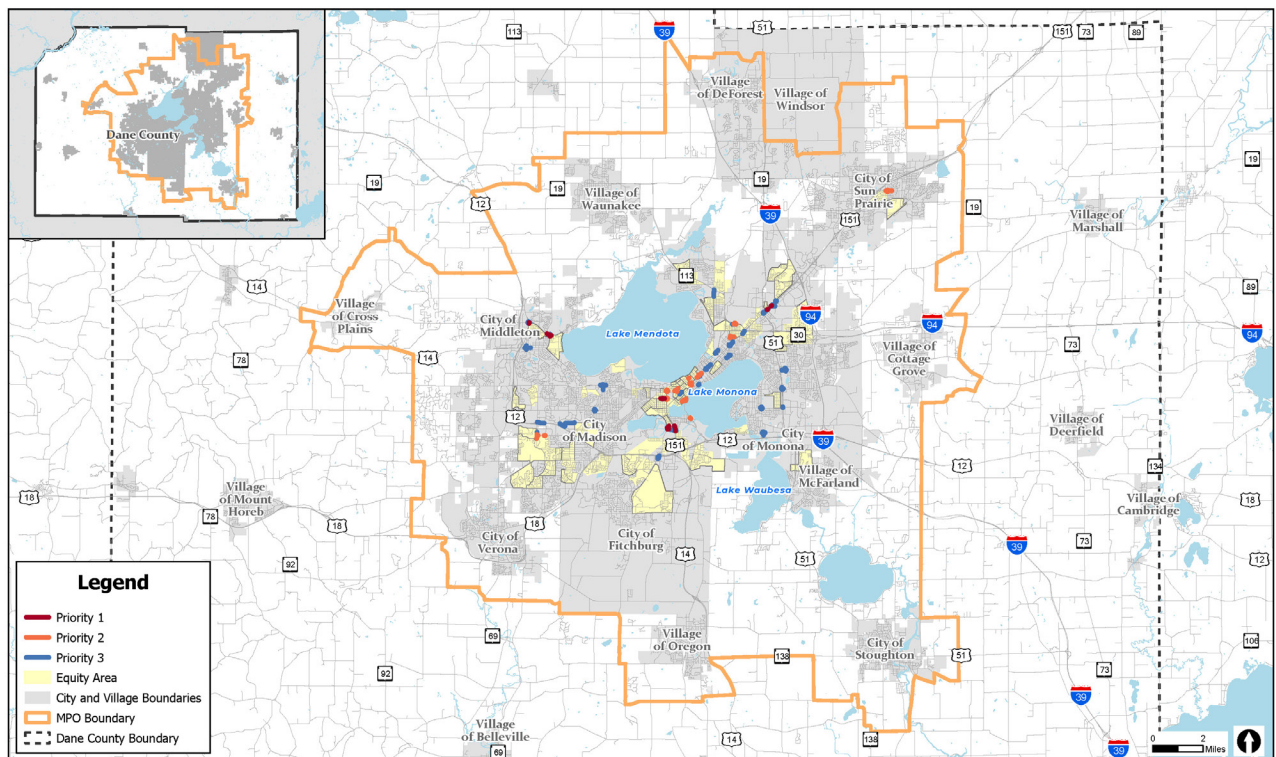


Figure 12 - Prioritization - Profile 5 Uncontrolled Intersections (Bicycle)

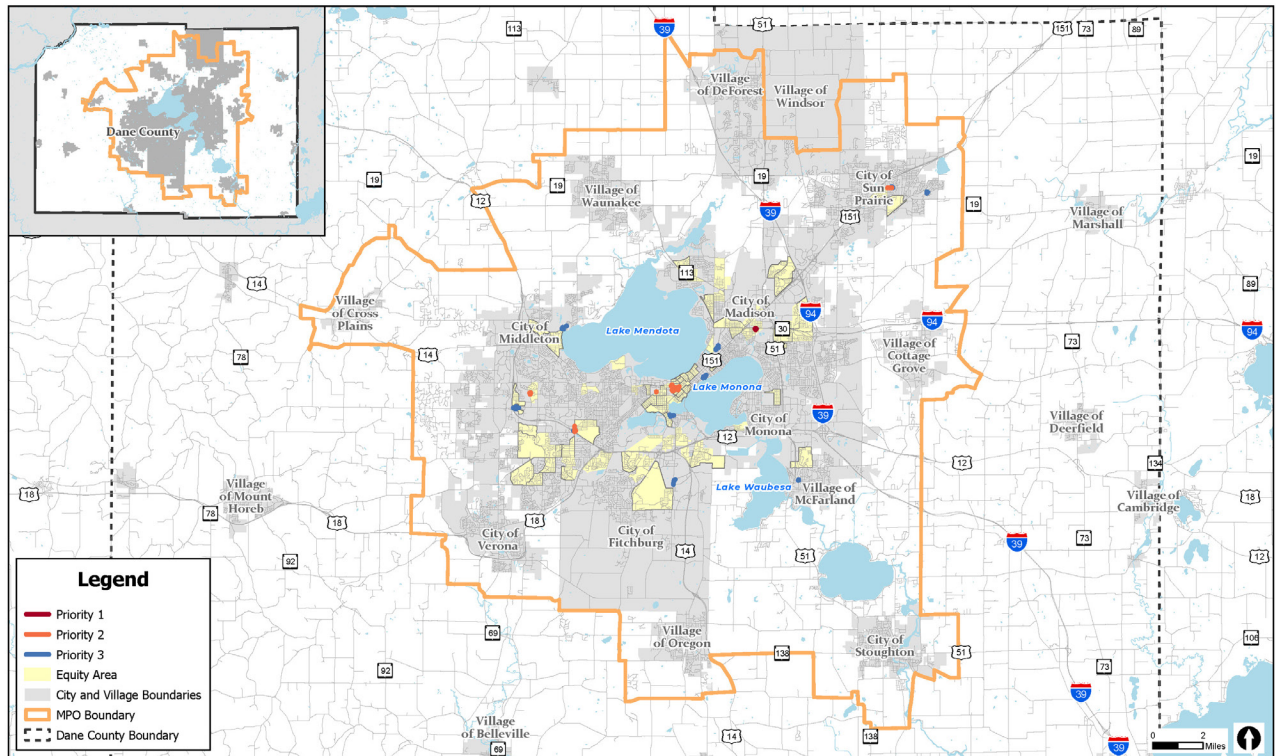


Figure 13 - Prioritization - Profile 6 Roads Without Bike Infrastructure (Bicycle)

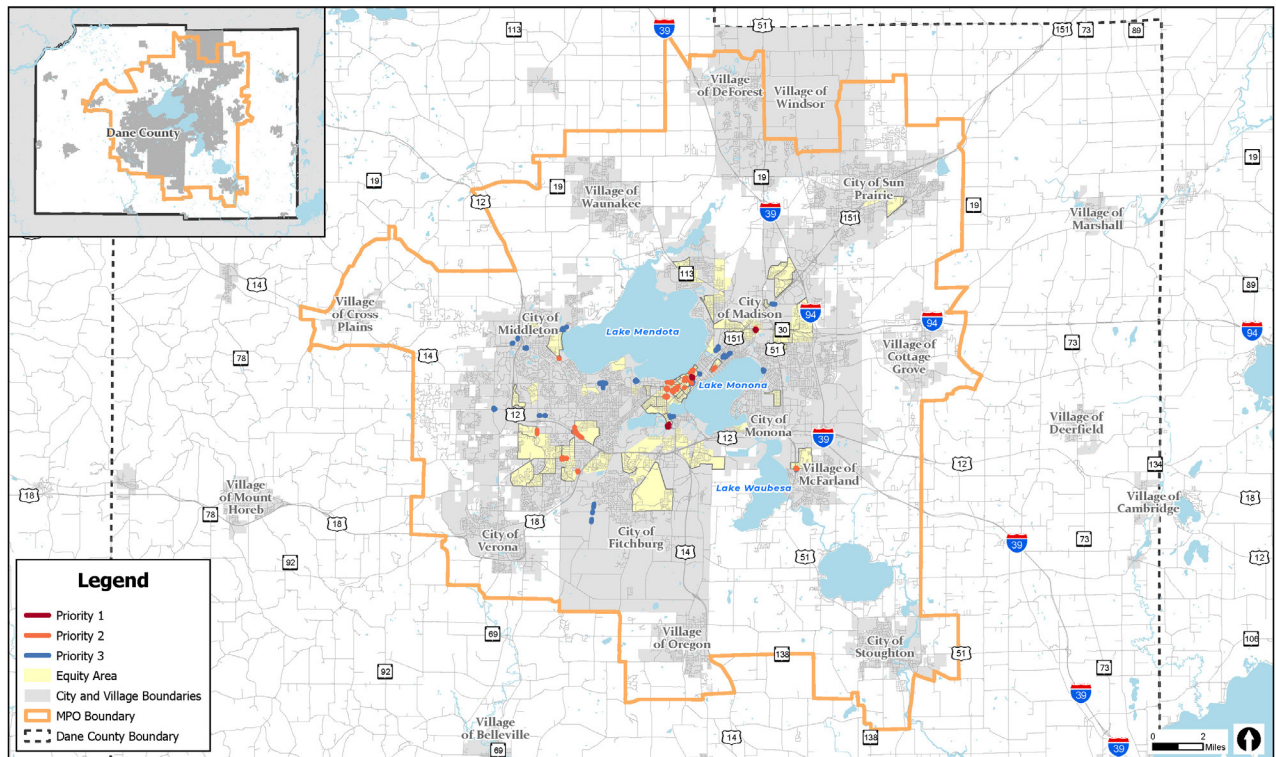




Figure 14 - Prioritization - Profile 7 Multi-Lane Arterials (Bicycle)

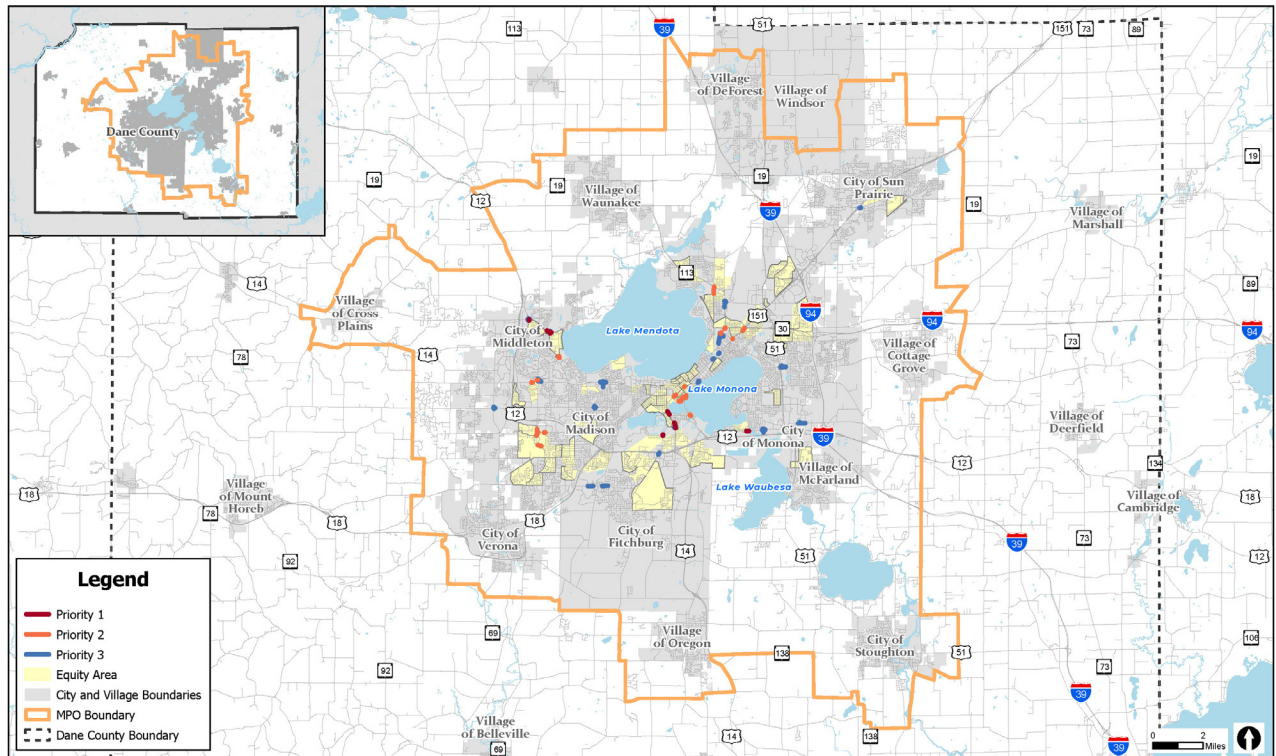


Figure 15 - Prioritization - Profile 8 Commercial Areas (Pedestrian)

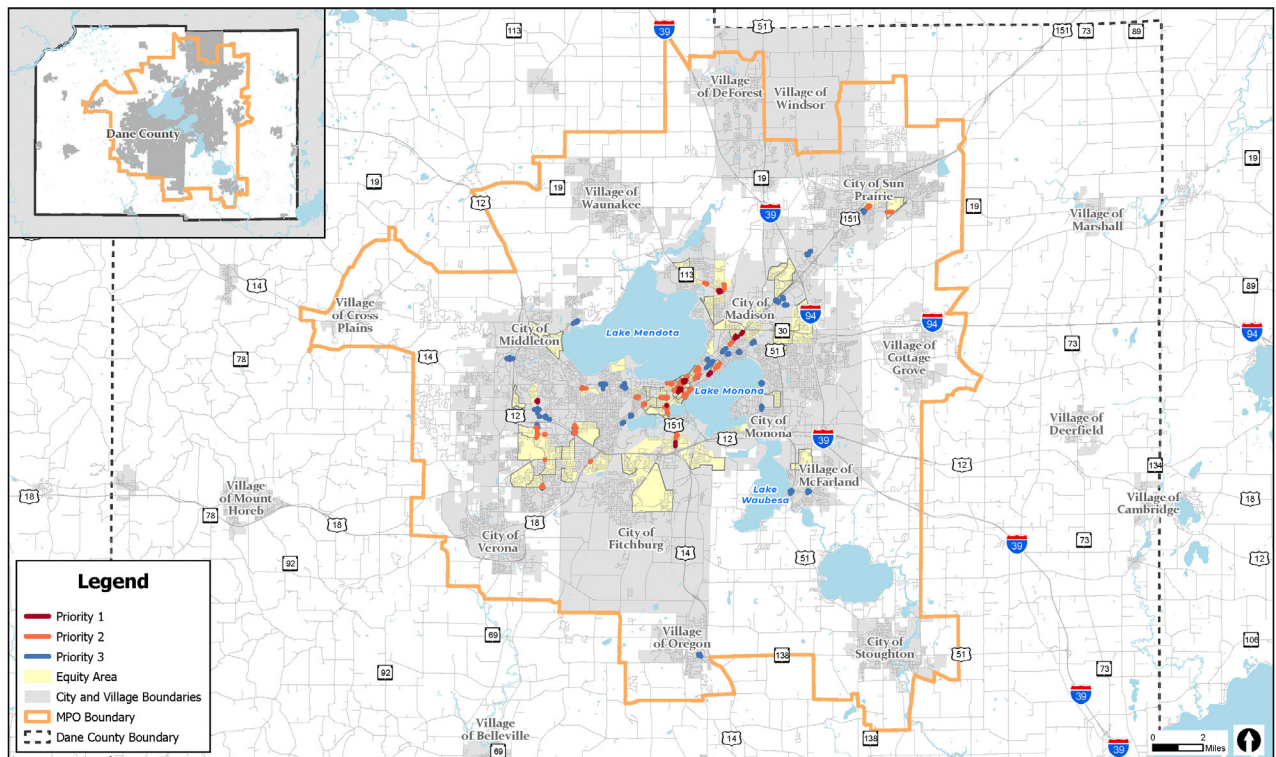


Figure 16 - Prioritization - Profile 9 Multi-Lane Arterials (Pedestrian)

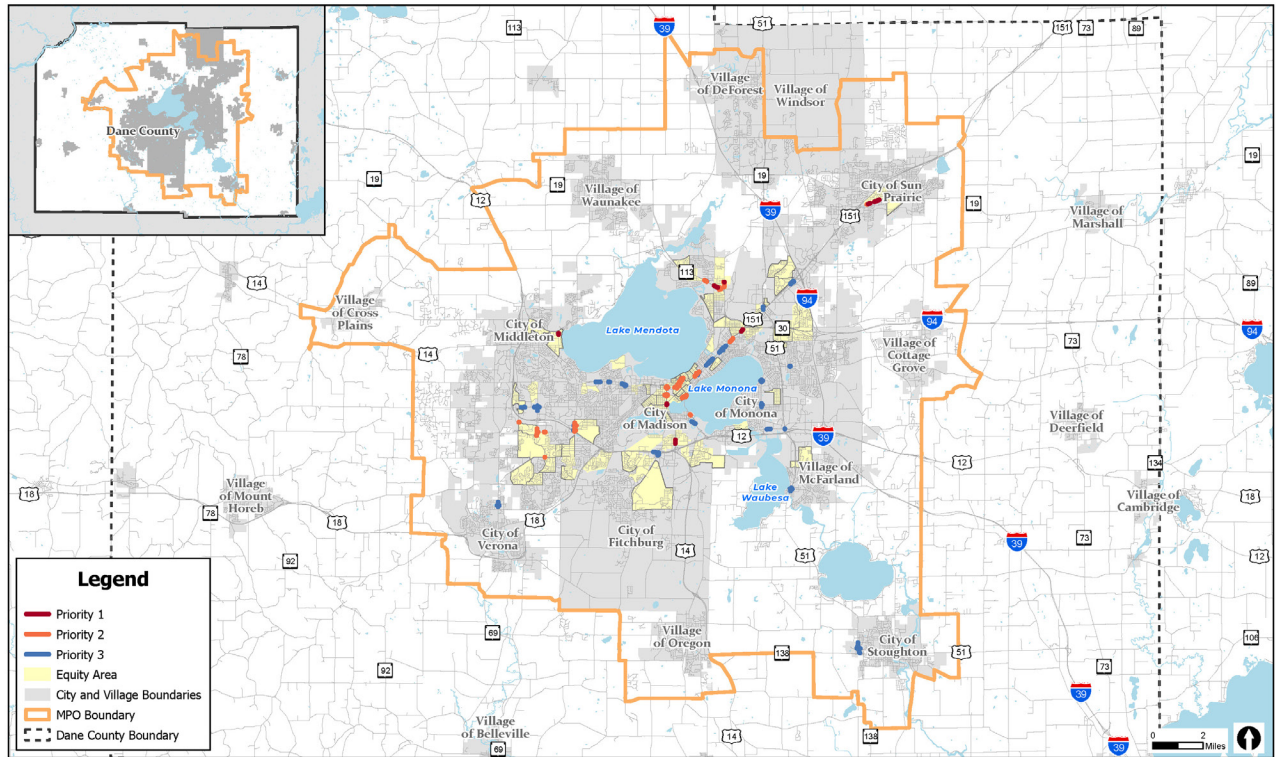


Figure 17 - Prioritization - Profile 10 Pedestrian Hit & Run Crashes (Pedestrian)

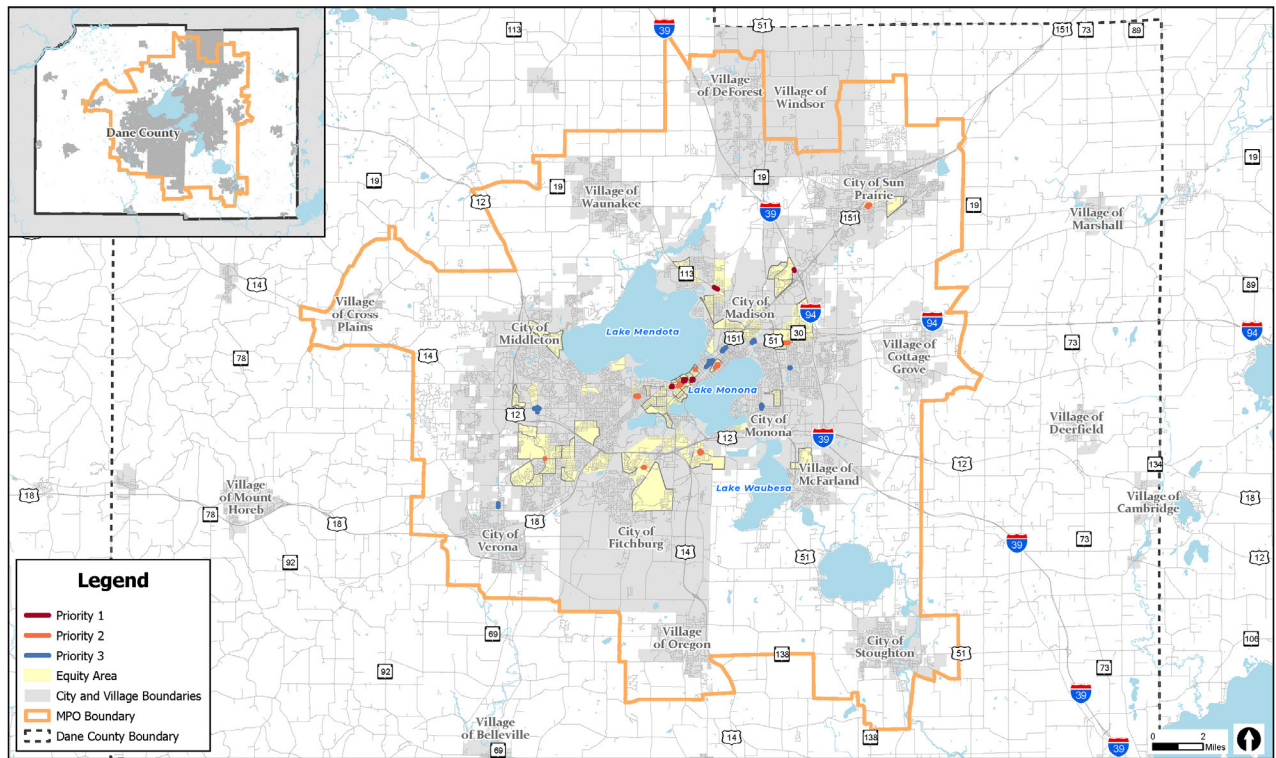
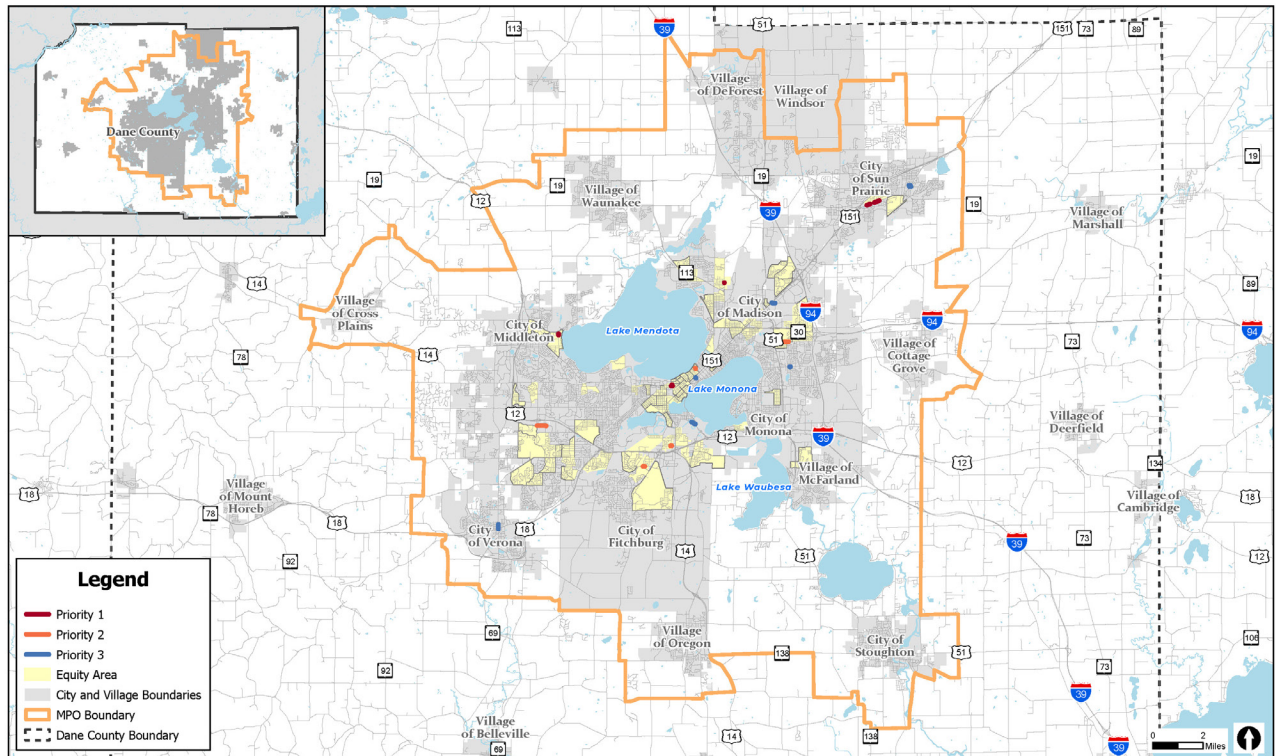








Figure 18 - Prioritization - Profile 11 Unmarked Mid-Block Crossings (Pedestrian)



Based on the results, the proven engineering and non-engineering countermeasures listed in Chapter 9 – Taking Action – Toolkit were identified as potential safety improvements to consider when evaluating priority locations and addressing the Crash Profiles. The potential countermeasures were

based on FHWA's Proven Safety Countermeasures and reviewed with the Greater Madison MPO staff, WisDOT and local agency partners. See Table 4 Potential Countermeasures by Crash Profile Table 4 for list of potential countermeasures to address the eleven crash profiles.

**Table 4 Potential Countermeasures by Crash Profile**

Crash Profile	Mode	Engineering Countermeasure	Non-Engineering Countermeasure
<p><b>Multi-Lane Arterials</b></p> <p>Severe or fatal crashes that occurred on multi-lane arterials with posted speed limits of 30 mph or greater</p>		<ul style="list-style-type: none"> <li>• Speed safety cameras</li> <li>• Variable speed limits</li> <li>• Reduce lane widths</li> <li>• Road Diets (Lane Configuration)</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> </ul>
<p><b>Turning Vehicles at Signalized Intersections</b></p> <p>Severe or fatal crashes that resulted in an injury from a front-to-side vehicle crash at a signalized intersection</p>		<ul style="list-style-type: none"> <li>• Backplates with retroreflective borders</li> <li>• Dedicated left/right turn lanes</li> <li>• Roundabout/Mini Roundabout</li> <li>• Flashing yellow arrow</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> </ul>
<p><b>Roadway Departure in Rural Areas</b></p> <p>Severe or fatal crashes that occurred on an undivided rural road with posted speed limits of at least 35 mph. Injuries related from the vehicle leaving the roadway and striking another object or otherwise losing control.</p>		<ul style="list-style-type: none"> <li>• Wider Edge Lines</li> <li>• Enhanced Delineation for Horizontal Curves</li> <li>• Longitudinal Rumble Strips and Stripes on Two-Lane Roads</li> <li>• Median Barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Road safety audit</li> </ul>
<p><b>Signalized Intersections</b></p> <p>Severe or fatal crashes that occurred when a vehicle struck a bicyclist at a signalized intersection.</p>		<ul style="list-style-type: none"> <li>• Backplates with retroreflective borders</li> <li>• Corridor Access Management</li> <li>• Leading pedestrian interval</li> <li>• Turning restrictions</li> <li>• Parking restriction on crosswalk approach</li> <li>• Advance “yield here” sign and stop bar</li> <li>• Flashing yellow arrow</li> <li>• Remove sightline obstructions</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> <li>• Bike lanes/trail demo</li> </ul>

Crash Profile	Mode	Engineering Countermeasure	Non-Engineering Countermeasure
<p><b>Uncontrolled Intersections</b></p> <p>Severe or fatal crashes that occurred when a vehicle struck a bicyclist at an intersection with no traffic control devices.</p>		<ul style="list-style-type: none"> <li>• Lighting</li> <li>• Rectangular Rapid Flashing Beacons</li> <li>• Pedestrian Hybrid Beacons</li> <li>• Road Diets (Reconfiguration)</li> <li>• Parking restriction on crosswalk approach</li> <li>• Advance “yield here” sign and stop bar</li> <li>• Remove sightline obstructions</li> <li>• Retroreflective strips on stop sign posts</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> <li>• Bike lanes/trail demo</li> </ul>
<p><b>Roads Without Bike Infrastructure</b></p> <p>Severe or fatal crashes that occurred while the bicyclist was riding along an urban city street that had no bicycle infrastructure.</p>		<ul style="list-style-type: none"> <li>• Bicycle lanes/boulevard</li> <li>• Bike lanes with buffer/separated from traffic</li> <li>• Paved Shoulder</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> <li>• Bike lanes/trail demonstration</li> </ul>
<p><b>Multi-Lane Arterials</b></p> <p>Severe or fatal crashes that occurred on multi-lane arterials with posted speed limits of at least 30 mph.</p>		<ul style="list-style-type: none"> <li>• Bicycle lanes/boulevard</li> <li>• Bike lanes with buffer/separated from traffic</li> <li>• Paved Shoulder</li> </ul>	<ul style="list-style-type: none"> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• Traffic calming demonstration</li> <li>• Bike lanes/trail demonstration</li> </ul>
<p><b>Commercial Areas</b></p> <p>Severe or fatal crashes that occurred while pedestrians were crossing the road in marked crosswalks in areas with commercial land uses.</p>		<ul style="list-style-type: none"> <li>• Lighting</li> <li>• Leading pedestrian interval</li> <li>• Rectangular Rapid Flashing Beacons</li> <li>• Pedestrian Hybrid Beacons</li> <li>• Road Diets (Reconfiguration)</li> <li>• Sidewalks</li> <li>• Medians and Pedestrian Refuge Islands in Urban and Suburban Areas</li> <li>• Appropriate Speeds</li> <li>• Speed safety cameras</li> <li>• Sidewalks</li> <li>• Parking restriction on crosswalk approach</li> <li>• Advance “yield here” sign and stop bar</li> <li>• In-street pedestrian crossing sign</li> <li>• Curb extension</li> <li>• Pedestrian countdown timers</li> <li>• Remove sightline obstructions</li> <li>• No Right Turn on Red</li> <li>• Dynamic speed feedback sign</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian Education/Visibility</li> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• RRFB for vulnerable road users (demonstration)</li> <li>• Midblock crosswalk installation demonstration</li> <li>• Traffic calming demonstration</li> </ul>




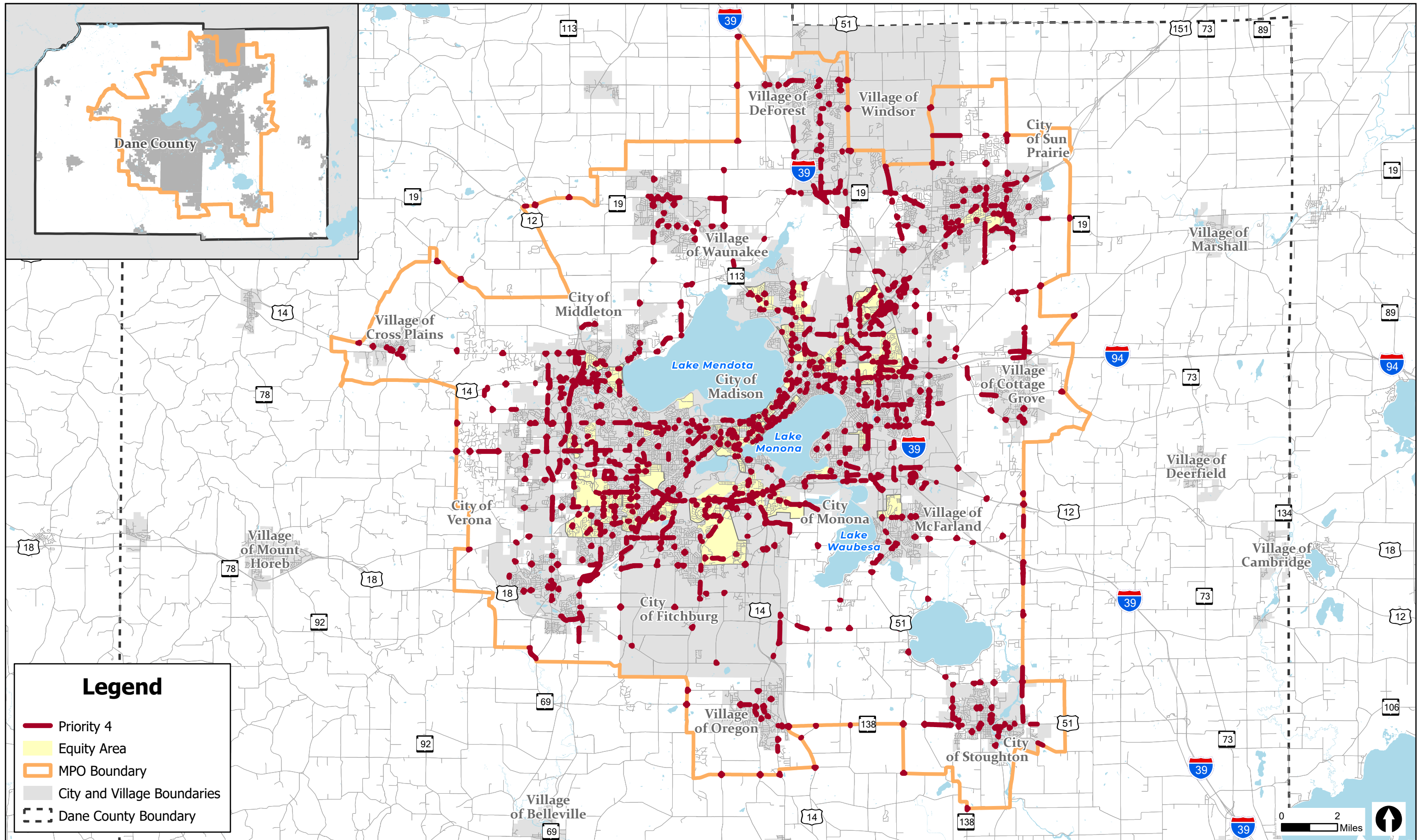
Crash Profile	Mode	Engineering Countermeasure	Non-Engineering Countermeasure
<p><b>Multi-Lane Arterials</b></p> <p>Severe or fatal crashes that occurred on multi-lane arterials with posted speed limits of 30 mph or greater and annual average daily traffic of at least 6,000 vehicles.</p>		<ul style="list-style-type: none"> <li>• Lighting</li> <li>• Leading pedestrian interval</li> <li>• Pedestrian Hybrid Beacons</li> <li>• Road Diets (Reconfiguration)</li> <li>• Medians and Pedestrian Refuge Islands in Urban and Suburban Areas</li> <li>• Curb extensions</li> <li>• Parking restriction on crosswalk approach</li> <li>• Advance “yield here” sign and stop bar</li> <li>• Appropriate speeds</li> <li>• Speed safety cameras</li> <li>• Sidewalks</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian Education/Visibility</li> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• Midblock crosswalk installation demonstration</li> <li>• Traffic calming demonstration</li> </ul>
<p><b>Pedestrian Hit &amp; Run Crashes</b></p> <p>Severe or fatal crashes that occurred in urban settings at night.</p>		<ul style="list-style-type: none"> <li>• Lighting</li> <li>• Appropriate speeds</li> <li>• Pedestrian countdown timers</li> <li>• Retroreflective strips on stop sign posts</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian Education/Visibility</li> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• RRFB for vulnerable road users (demonstration)</li> <li>• Midblock crosswalk installation demonstration</li> <li>• Traffic calming demonstration</li> </ul>
<p><b>Unmarked Mid-Block Crossings</b></p> <p>Severe or fatal crashes that occurred in urban settings where the pedestrian is struck while crossing the road outside a marked crosswalk, not at an intersection.</p>		<ul style="list-style-type: none"> <li>• Lighting</li> <li>• Rectangular Rapid Flashing Beacons</li> <li>• Road Diets (Reconfiguration)</li> <li>• Sidewalks</li> <li>• Medians and Pedestrian Refuge Islands in Urban and Suburban Areas</li> <li>• Appropriate speeds</li> <li>• Curb extension</li> <li>• Parking restriction on crosswalk approach</li> <li>• Advance “yield here” sign and stop bar</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian Education/Visibility</li> <li>• Corridor studies</li> <li>• Speed management</li> <li>• Lighting management</li> <li>• Safe Routes to School</li> <li>• New education campaign</li> <li>• Road safety audit</li> <li>• RRFB for vulnerable road users (demonstration)</li> <li>• Midblock crosswalk installation demonstration</li> <li>• Traffic calming demonstration</li> </ul>

Figure 19 identifies Priority 4 locations, which do not correspond to any crash profiles. These locations should be considered as priority locations for review and potential project development and implementation based on funding availability.





**SYSTEMIC IMPLEMENTATION**

Specific action items are necessary to implement the Safety Action Plan. Table 5 includes specific actions to address the goals and objectives listed in Chapter 5 – Roadway Safety in the Greater Madison MPO. The table also includes entities identified to champion implementation of the action, key partner organizations, a timeline to track implementation, and relative level of investment expected to implement each action item.

**Goal:** References the MPO’s three goals described in Chapter 5 – Roadway Safety in the Greater Madison MPO.

**Investment Level Key:**  
 \$ - Includes efforts with low investment in agency labor such as changes to existing practices and approaches to collaboration with partner organizations.  
 \$\$ - While not involving a physical project, may require significant investment of agency labor and partner organization involvement.  
 \$\$\$ - Capital investment in a physical project, likely including significant agency labor investment as well.

**Timeframe:**  
 Short term: 0-2 years  
 Midterm: 2-5 years  
 Long term: 5+ years

**Table 5. Implementation Actions**

#	Goal	Action	Responsibility	Key Partners	Timeline	Investment Level
G1.1	1	Support the work of the Dane County Traffic Safety Commission and Local Safety Initiatives	MPO	Dane County Traffic Safety Commission and Local Agencies	Ongoing	\$
G1.2	1	Develop and Implement Regional Active Transportation Plan	MPO	Local Agencies	Ongoing	\$\$
G1.3	1	Implement lighting at appropriate pedestrian and bicycle crash profiles with Priority 1	Local Agencies	WisDOT	Long term	\$\$\$
G1.4	1	Develop a regional Complete Streets design standard	MPO	Local Agencies, WisDOT	Short term	\$
G2.1	2	Implement Safe Routes Studies at appropriate pedestrian and bicycle crash profiles with Priority 1	Local Agencies and MPO	School Districts	Midterm	\$\$
G2.2	2	Enhance Traffic Enforcement in Priority 1 Locations along with those identified by the Dane County Traffic Safety Commission	Law Enforcement Agencies and Dane County Traffic Safety Commission	MPO, WisDOT	Ongoing (Review of results after 5 years)	\$\$
G2.3	2	Analyze safety data and program projects to address priority 1 locations	Local Agencies and WisDOT	MPO	Long term	\$\$\$
G2.4	2	Identify potential speed management techniques to be employed regionally as a best practice	MPO	Local Agencies and Law Enforcement Agencies	Short term	\$
G2.5	2	Identify Traffic Calming Best Practices for new development and reconstructs	MPO and Local Agencies	Law Enforcement Agencies	Short term	\$

#	Goal	Action	Responsibility	Key Partners	Timeline	Investment Level
G2.6	2	Enhance training for law enforcement and emergency service personnel responsible for crash reporting	Law Enforcement Agencies	MPO, Dane County Traffic Safety Commission, WisDOT	Midterm	\$\$
G2.7	2	Develop Distracted Driving -Targeted Education	Regional Police Department	MPO, Dane County Traffic Safety Commission, WisDOT	Short term	\$\$
G2.8	2	Partner with youth organizations to create anti-distraction messaging campaigns	MPO	Dane County Traffic Safety Commission, Local agencies, Community Organization, School Districts	Short term	\$\$
G2.9	2	Establish program and procedures to continue a fatality review considering the potential for a roadway safety audit after fatal or serious injury crashes; include establishing crash victim advocates	MPO	Dane County Traffic Safety Commission	Short term	\$
G2.10	2	Coordinate a joint regional effort to assess the use of speed safety cameras (currently prohibited by state law). Cities like Milwaukee continue to advocate for their use as a cost-effective strategy to address reckless driving.	Local Agencies	Dane County Traffic Safety Commission and Law Enforcement Agencies	Long term	\$\$
G3.1	3	Develop planning and promoting safety around regional transit services	MPO	Local Agencies and Transit Services	Short term	\$
G3.2	3	Conduct targeted engagement with traditionally underrepresented before implementing infrastructure projects	Local agencies	Community Groups, Dane County Traffic Safety Commission, WisDOT, MPO	Long term	\$

## MEASURING AND REPORTING PROGRESS

### Plan Leadership and Structure

The MPO assumes leadership of the Regional Safety Action Plan and the vision to achieve zero traffic deaths and severe injuries on streets within the MPO by 2040. This Regional Safety Action Plan was adopted by the Policy Board on June 5, 2024. As a part of this Regional Safety Action Plan, the MPO has identified the TCC to carry out steering the data evaluation and review of the components of the Regional Safety Action Plan. The TCC continues to meet monthly to advise on regional transportation planning matters to include implementation and evaluation of the actions listed in this Regional Safety Action Plan. The MPO will also continue to collaborate with the Dane County Traffic Safety Commission in support of their data-driven safety priorities and coordinate with implementation.

### Evaluation

The MPO will provide yearly reports once the previous year's crash data is available to evaluate progress toward the Regional Safety Action Plan's vision to zero traffic deaths and severe injuries. The MPO will also evaluate progress to the actions listed in this Regional Safety Action Plan. The yearly reporting will be a part of the federally required performance measures (as detailed in the MPO's [Performance Measures Dashboard](#)). The safety performance measures include a 5-year rolling average:

- Number of serious injuries
- Number of non-motorized fatalities and serious injuries
- Number of crash fatalities

From the date of adoption, the MPO will revise the goals, objectives, and actions or fully update the Regional Safety Action Plan every five years to ensure the data evaluation is up to date and reflects the evolving policies, programs and projects within the region.