

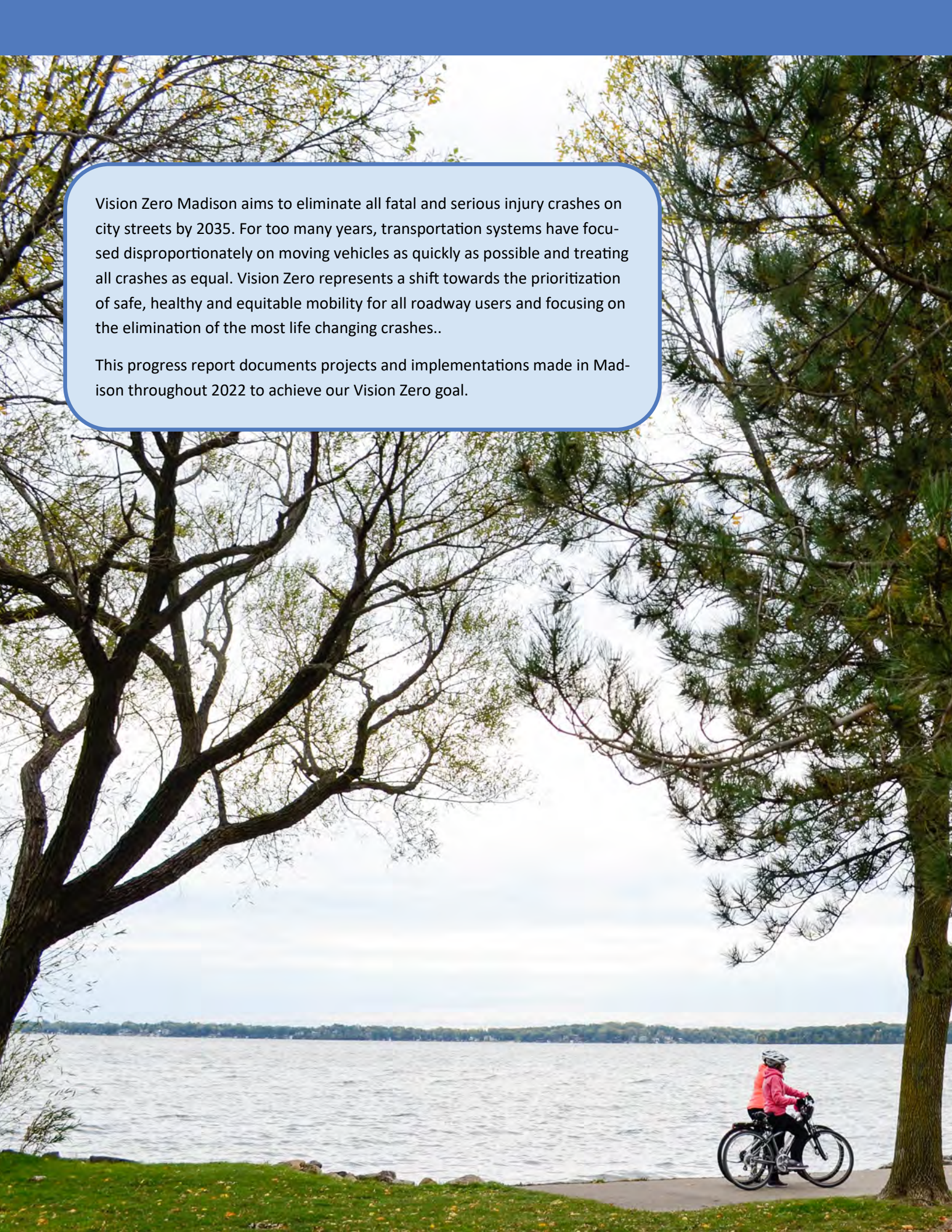


# PROGRESS REPORT

2020-2022






A person wearing a bright pink jacket and a helmet is riding a bicycle on a paved path. The path is situated on a grassy bank next to a large body of water, likely a lake. The background is filled with trees, some with green leaves and others with yellowing foliage, suggesting an autumn setting. The sky is overcast and grey. The entire scene is framed by the branches and leaves of trees in the foreground.

Vision Zero Madison aims to eliminate all fatal and serious injury crashes on city streets by 2035. For too many years, transportation systems have focused disproportionately on moving vehicles as quickly as possible and treating all crashes as equal. Vision Zero represents a shift towards the prioritization of safe, healthy and equitable mobility for all roadway users and focusing on the elimination of the most life changing crashes..

This progress report documents projects and implementations made in Madison throughout 2022 to achieve our Vision Zero goal.





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Safe Speed Projects Evaluations





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February 14, 2024

In April 2022, I signed the City of Madison's Vision Zero Resolution and Madison officially became part of the nationwide movement of cities focused on the goal of zero traffic fatalities. Safety for all users of Madison's streets remains one of my top priorities.

Between the launch of our Vision Zero initiative in 2020 and December 2022, the City and our partners have made important progress toward Vision Zero, including:

- Developing a data driven High Injury Network map and using that data to direct resources to the most needed areas of our City through the new Safe Streets Madison program.
- Lowering speeds on over 20 miles of roadway, building over 6 miles of new sidewalk, shared-use paths and protected bike lanes, and improving over 30 crosswalks by adding flashing beacon lights.
- Securing federal grants to accelerate our work including the recent \$6.3 million from the USDOT Safe Streets and Roads for All grant.

The City is taking a systematic approach to improve safety and this report shows work that is happening in departments across the City to meet our traffic safety goals. We recognize that much work still needs to happen, as even one life lost or forever changed due to a traffic crash is too many. I hear our residents' concerns that they continue to see too many people speeding, driving recklessly, distracted, or impaired and do not feel safe. All Madisonians deserve to feel safe when moving around our city.

Moving forward, we will continue using proven safety measures in all projects while implementing our Vision Zero Action Plan. Projects such as the 2023 reconstruction of Atwood Ave near Olbrich Park and the first phase of the reconstruction of Hammersley Rd focused on the safety of all users in their design. In 2024, the City will continue to reconstruct roads to provide separation between and better safety for people walking, biking and driving, such as our upcoming project on Segoe Rd between Sheboygan Ave and Regent St. Projects like Bus Rapid Transit will make it easier for people to make trips without driving and reduce the number of vehicles on the streets.

Reaching our goal of zero deaths and serious injuries on our streets will not be easy, but we know that these tragedies are preventable. Working together we can make our streets safer. The City is firmly committed to continuing the implementation of our Vision Zero Action Plan and ensuring that everyone, regardless of how they choose to travel, feel safe on our streets. Join us in supporting these efforts.

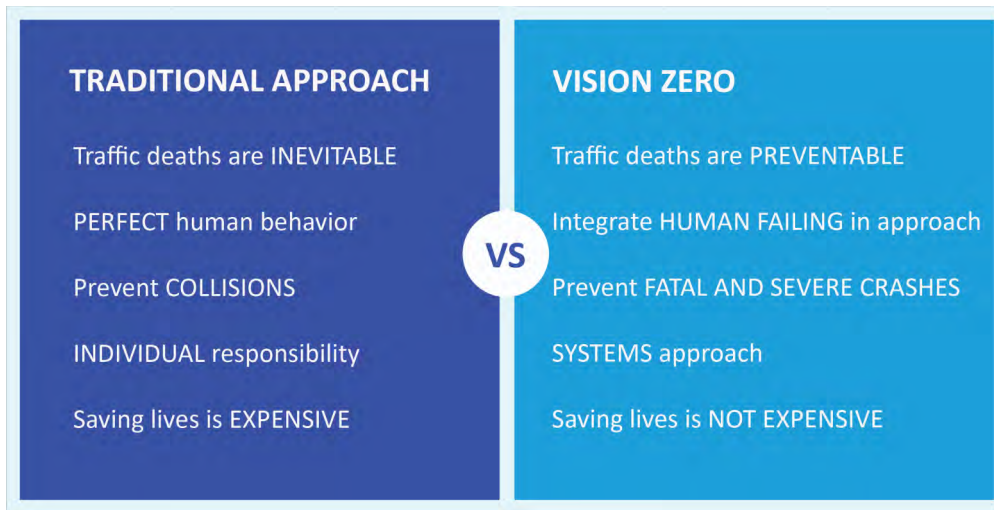
Sincerely,

A handwritten signature in black ink, appearing to read "SR-Conway".

Satya Rhodes-Conway  
Mayor

# What is Vision Zero?

Vision Zero Madison is an initiative with the goal of reducing all traffic deaths and severe injuries on city streets to zero by 2035.



Vision Zero also focuses on increasing safe, healthy equitable mobility for all. Vision zero recognizes that people will sometimes make mistakes, so the road system and related policies should be designed to ensure those inevitable mistakes do not result in severe injuries or fatalities.

## Why 2035?

Setting a timeline brings urgency to this initiative and helps us hold ourselves accountable. In 2035 the City of Madison will evaluate its progress and develop a new action plan.

## Why Zero?

Zero is the only justifiable target for this plan to aim to achieve. Setting it as a shared goal is bold and reinforces that we need major shifts in the way we think about our transportation system.

## Thank you to the Vision Zero Stakeholders

Vision Zero cannot be achieved without the support and work of many individuals, partner agencies and organizations that continue to support safe mobility for everyone.





# High Injury Network

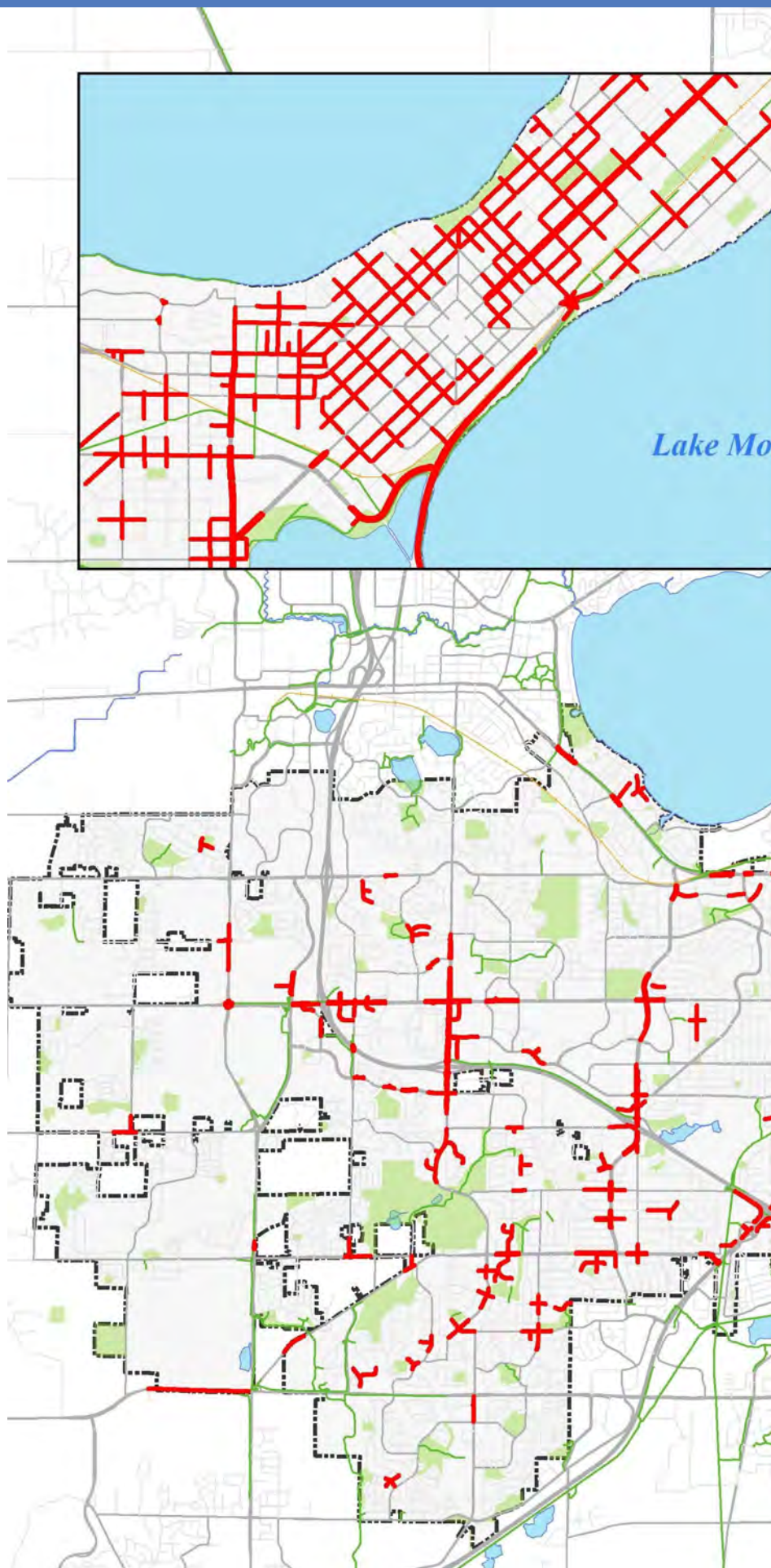
The High Injury Network (HIN) map was created to ensure that the Vision Zero initiative focused on streets where the likelihood of a serious or fatal crash is highest.

The methodology for the High Injury Network was developed in collaboration with the [UW's Traffic Operations and Safety Laboratory](#).

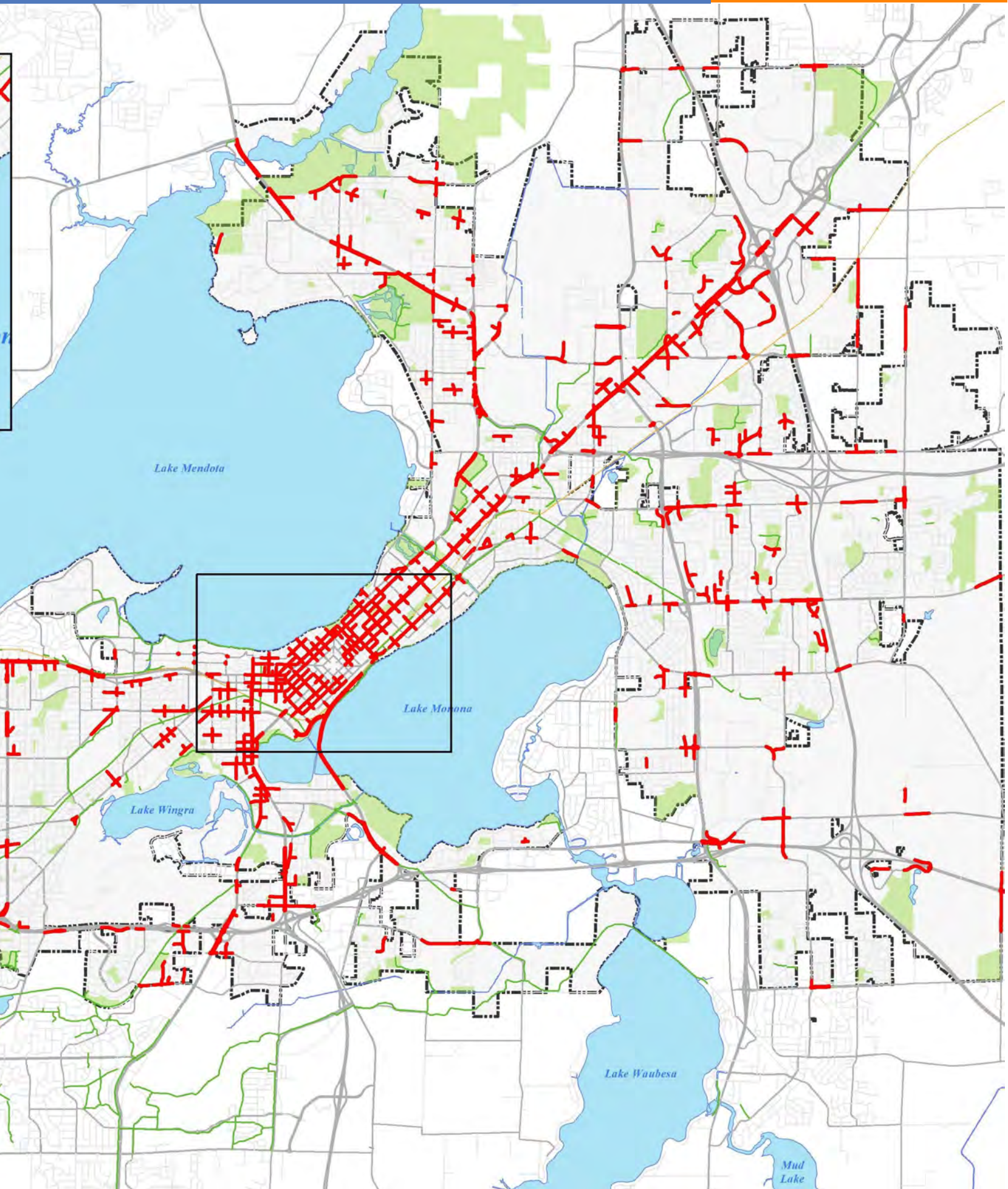
The methodology evaluates crash frequency at intersections and roadway segments to identify high injury facilities in the network. The evaluation also accounts for the societal costs of different types of crashes to provide more weight to fatal and serious injuries.

A total of 4,590 intersections were evaluated with different signal control type and configuration (i.e., stop controlled, traffic signal, roundabout, etc.). A total of 8,855 non-intersection segments were evaluated with different functional class and configuration (i.e., city street, arterial, divided/undivided, etc.). The ones with the highest likelihood of fatal or injury crashes are included on the High Injury Network map. Data used for the current network map is from 2017-2019. An update to the HIN is planned for 2024.

More information on the High Injury Network methodology is available on the City of [Madison Vision Zero website](#).







# Performance Metrics

Evaluation and regular reporting are essential components of the data-driven approach to Vision Zero. There must be accountability to the commitment of eliminating traffic deaths and severe injuries. As such, the performance metrics below were outlined in the Action Plan as the initial metrics that would be included in the Progress Report.

## Safe Streets

- Yearly mileage of speed limit reductions
- Efficacy of speed limit reductions
- Number of pedestrian and bike gaps closed per year
- Yearly length of protected bike facilities
- Yearly length of reconstruction, resurfacing, or stand-alone major projects on HIN
- Percent completions of LED upgrade
- Discussion of smaller improvements on HIN

## Safe People

- Percent VMT reduction, yearly basis
- Total public information campaigns
- Safe Routes to School and walk/bike education programming

## Safe Vehicles

- Percent of City Fleet with safety features
- Percent of City drivers trained

## Safety Data

- Annual fatal and serious crashes
- Breakdown by mode, age, race, and if located in RESJI area
- Correlation with HIN and annual revision of HIN

## Equity

- Yearly mileage of RESJI\* streets with TIP projects
- Yearly mileage of RESJI\* streets with speed reductions
- Ratio of small improvements on RESJI\* streets

## Safety Focused Enforcement

- Hazardous citations, non-hazardous citations, and warning rates

\*The City of Madison strives to establish [racial equity and social justice](#) (RESJI) as a core principle in all decisions, policies, and functions of the City of Madison.



**From 2020-2022, 46 people lost their lives on Madison streets.**

**Only working together can we achieve Vision Zero in Madison.**







# Safe Streets

Factors that lead to fatalities and injuries include the geometry and speed of our streets.

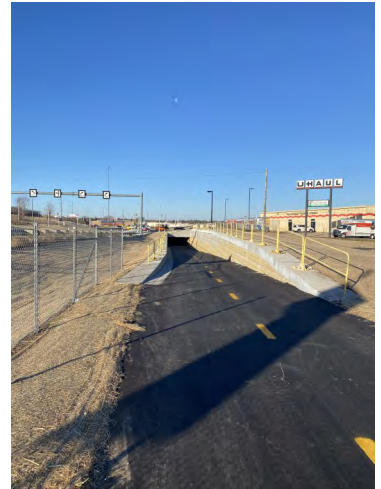




# 2020-2022 Project Highlights

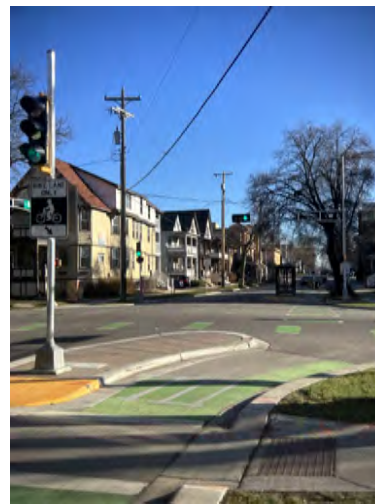
## 2020: Gammon Road

The City, in conjunction with the Wisconsin Department of Transportation, reconstructed South Gammon Road from the Beltline Highway to Mineral Point Road. This project included an extension of the West Towne Path featuring an underpass beneath Gammon Road. Upgrades were also made to the street light and the traffic signals systems to allow for a safer street operations.



## 2021: South Bassett Street

The City’s first parking protected bike lane was built in 2019, and in 2021 it was extended to West Main St. The intersection at West Washington Avenue included a protected intersection. Protected intersections create shorter, simpler crossings for people walking across the intersection and improve visibility between people on bikes and people driving.

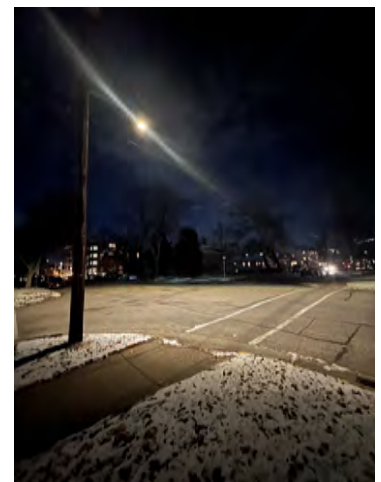


## 2020-2022: Rectangular Rapid Flash Beacon (RRFB) Installations

The City installed 31 rapid flashing beacons to improve safety at crosswalks throughout the City. The Federal Highway Association estimates that RRFBs can reduce crashes up to 47% for pedestrian crashes.

## LED Light Upgrade—50% Completed

Replacing old fixtures (like High Pressure Sodium) with LED fixtures improves the lighting in the area. LED fixtures have a better color rendition and more controlled light distribution, directing the light to the ground creating a desirable pattern depending on the area. LED lights require less power to operate and reduce maintenance costs, while also enhancing illumination of roadway and pedestrians. For pedestrians, lighting is also considered as a major factor in perceived walking comfort. Studies have shown that better lighting also reduces injuries from collisions and crime.



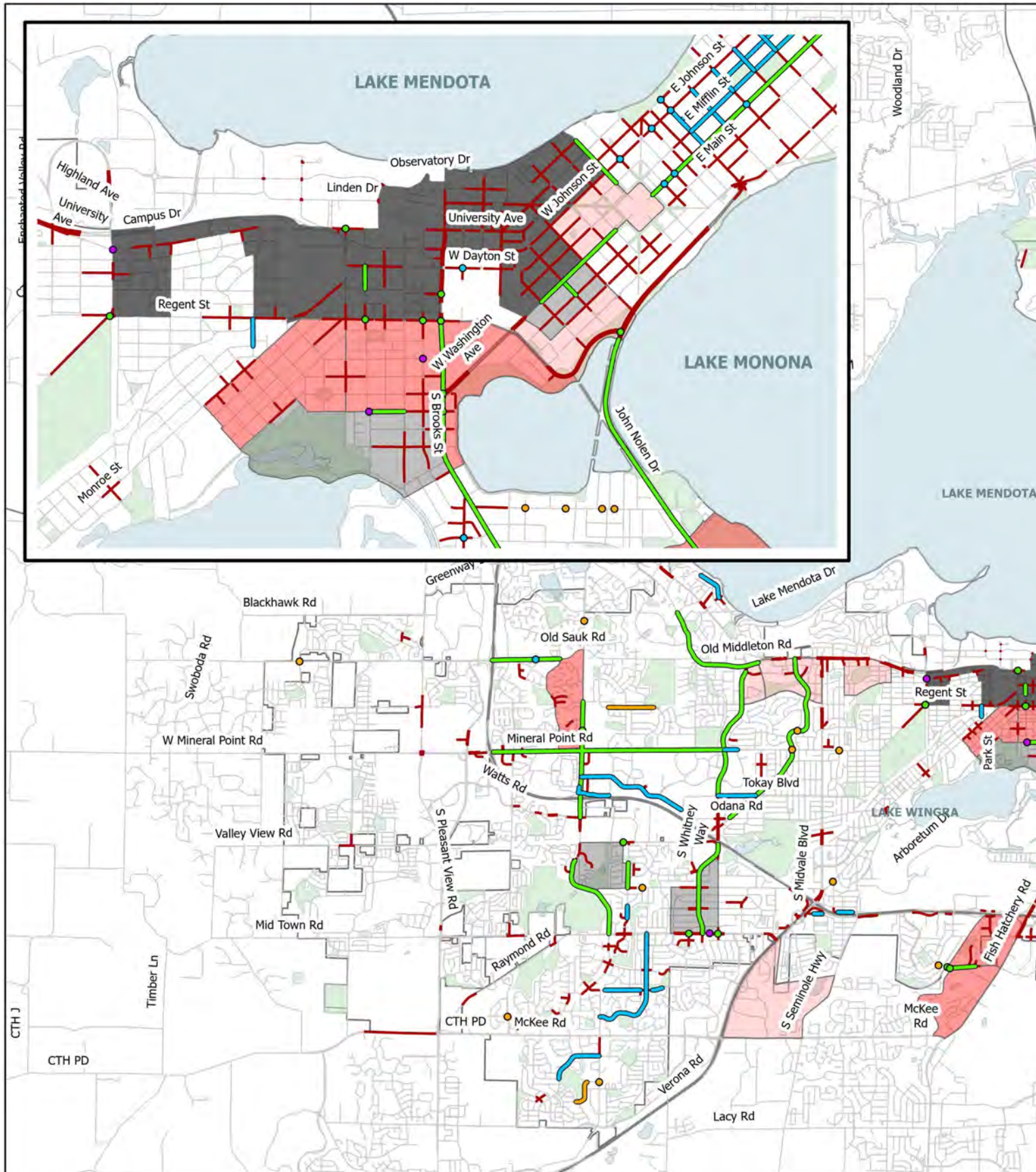
## Twenty is Plenty



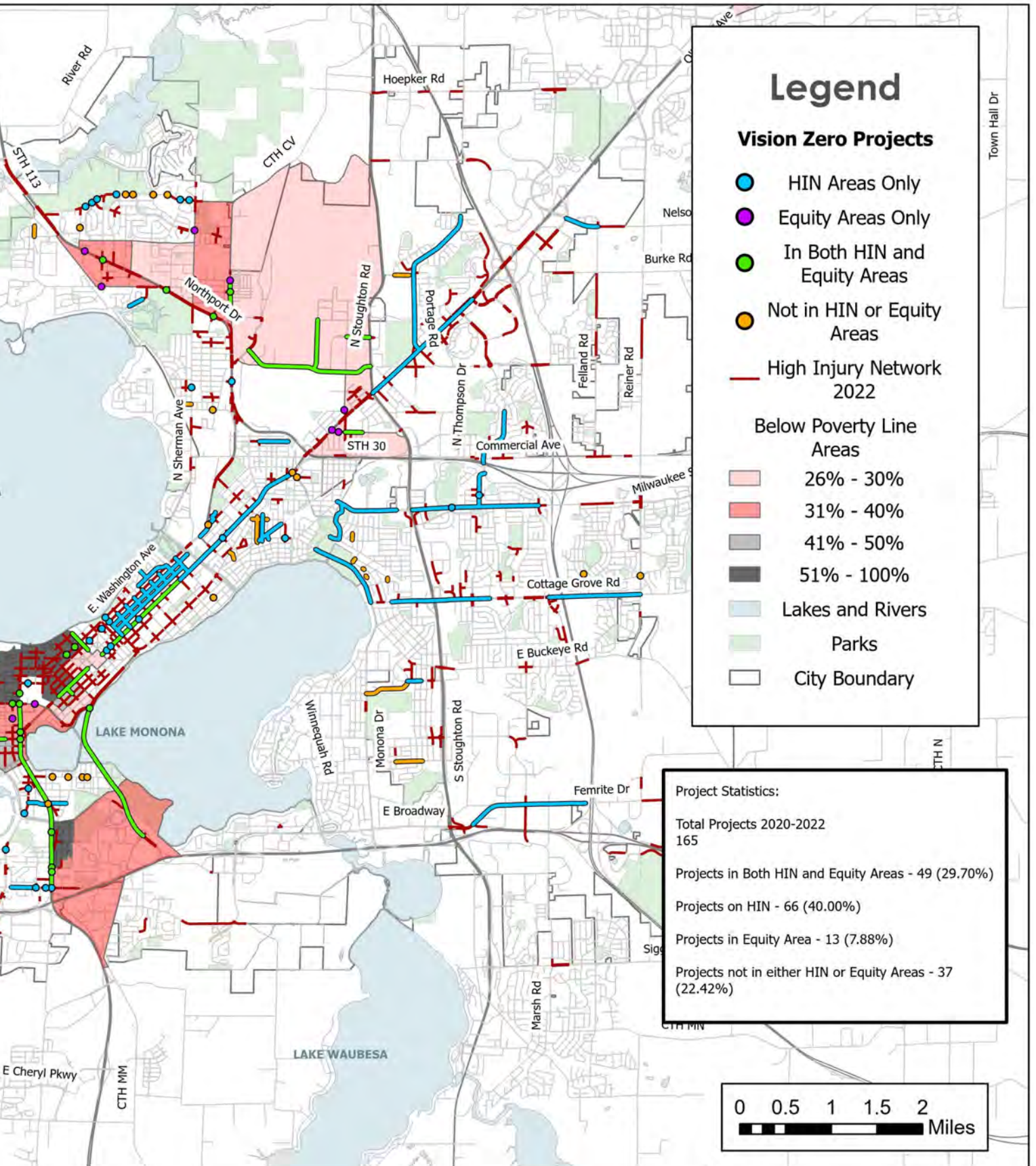
20 is Plenty is a program centered on the idea that a speed limit of 20 mph is appropriate for local, residential streets. It is intended to increase safety for pedestrians, bicyclists and drivers on local streets. A 20 mph residential street speed limit was implemented in 2021 on 11 miles of streets in two neighborhoods—Tenny Lapham and Theresa-Hammersley.



# Citywide Vision Zero Improvements









An aerial photograph of a lush green park. A paved road with yellow dashed lines runs through the center. To the right, a river flows through the park, bordered by dense trees. In the upper left, a white house is visible among the trees. The scene is bright and sunny, with shadows cast by the trees.

From 2020-2022

**6.2 miles**

Of new sidewalk, shared-use path and protected bike lanes constructed.

From 2020-2022

**11.4 miles**

Of bike lanes added or improved.



# Safe Speeds: Overview

The City of Madison’s Vision Zero Speed Management project reviews streets for safe speed limits and makes changes as appropriate. Between 2020 and 2022, speed limits were reviewed and subsequently reduced on 18 streets in Madison, totaling 31.14 miles.

The first speed limit changes were made on East Washington Ave between Pinckney St and Marquette St. In late 2021, the evaluation showed that there was a reduction in the highest, most dangerous speeds.

For this report, all 18 streets with speed reductions were evaluated. To better understand the effectiveness of the speed limit changes, multiple locations on each street have been reviewed. Data from StreetLight, a transportation data platform, was used for these evaluations. Since vehicle speed impacts both crash frequency and crash severity, the evaluations focused on both the percentage and volume of vehicles traveling 10 miles per hour over the posted speed limit.

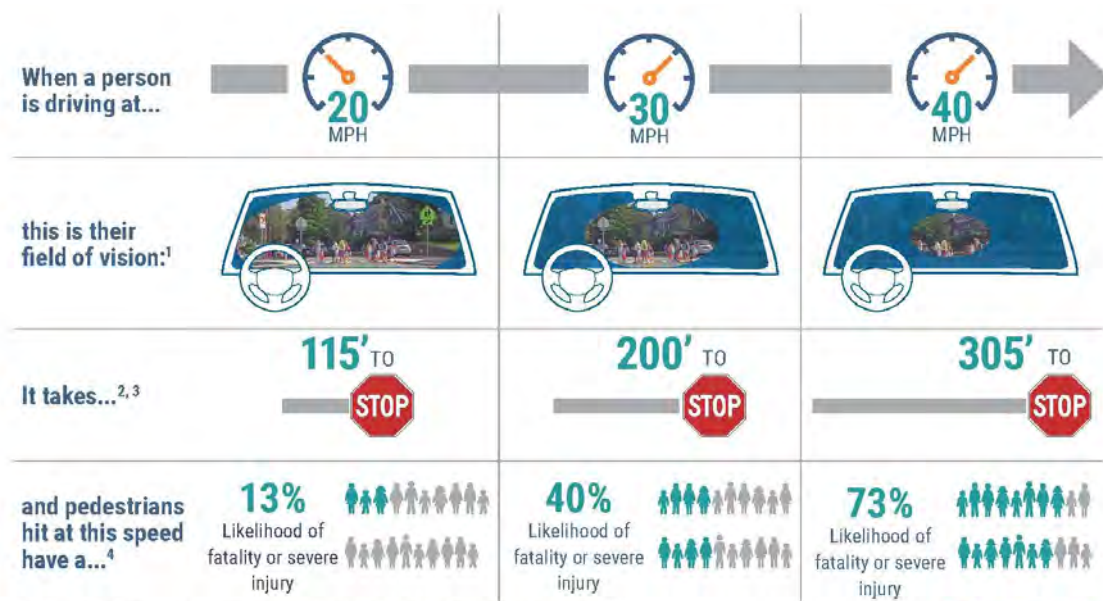
Of the locations studied, 31 locations saw a decrease in the percent of vehicles traveling 10 miles per hour over the posted speed limit after having the speed limit reduced. Five locations saw an increase in the percent of vehicles traveling 10 miles over the posted speed limit after the speed limit was changed. The data for 2 locations, S Segoe Rd at Keating Terrace and E Washington Ave at Mendota St, were reviewed but issues with the 2023 post-implementation data did not allow for analysis.

The complete Safe Speeds 2020-2022 evaluations are included in Appendix One which also includes a description of how StreetLight data is collected.

**Speed Management Project**

Speed Limit Reductions

- 2020: 9.89 miles
- 2021: 7.55 miles
- 2022: 13.7 miles



1 A. Bartmann, W. Spijkers and M. Hess, "Street Environment, Driving Speed and Field of Vision" Vision in Vehicles III (1991).  
 2 Braking distance includes a 2.5 second braking reaction time.  
 3 AASHTO Green Book—A Policy on Geometric Design of Highways and Streets, 7th Edition. American Association of State and Highway Transportation Officials, 2018.  
 4 Tefft, Brian C. Impact speed and a pedestrian's risk of severe injury or death. Accident Analysis & Prevention. 50. 2013.







# Safe People

Encouraging safe behavior for Motor Vehicle drivers, cyclists, and pedestrians is an important part of Vision Zero.





# Public Information Campaign Highlights

## WORLD DAY OF REMEMBRANCE FOR ROAD TRAFFIC VICTIMS

On November 20, 2022, the City of Madison joined other communities in remembering those killed in crashes with the World Day of Remembrance for Road Traffic Victims. The Mayor’s Office, Traffic Engineering and the Transportation department partnered with community stakeholders on a press conference to honor victims and their families, as well as, demonstrate the devastating impact that traffic deaths cause in Madison and to build support for the traffic safety measures being done to make streets safer.



## BE BRIGHT AT NIGHT

The City of Madison Traffic Engineering partnered with other agencies and volunteers on the Be Bright at Night Campaign which encourages safety and lowers the barriers to owning lights and reflective materials for bicyclists. During 2020 and 2021 the Madison Public Library handed out lights to people, and in 2022 the campaign returned to meeting with people directly on the street and installing lights for those biking without lights.



## LET’S TALK STREETS

Let’s Talk Streets centers community engagement and values in street design. The Transportation Department, Traffic Engineering and Engineering staff regularly attend community events, such as Parks Alive, Safety Saturday, and neighborhood meetings, to engage the public on street design for current and future projects.



## YOU ARE LOVED

You are Loved Campaign launched over Valentine’s Day to raise awareness about traffic safety and ensure loved ones return home safely whether walking, biking, or driving.



## YIELD TO PEDESTRIAN CAMPAIGN

The Yield to Pedestrian Campaign informed all users of crosswalks—bikers, pedestrians, and drivers— of the rights and responsibilities of each role, including drivers yielding to pedestrians especially when turning.

## SAFE ROUTES TO SCHOOL—WALK/BIKE EDUCATION AND ENCOURAGEMENT

The City partnered with community partners to offer Teaching Safe Bicycling continuing education for 30 physical education instructors. City staff partnered with the Wisconsin Bike Fed in teaching their “Walking Wisdom” curriculum to 65 second and third graders at Elvehjem Elementary School and “Bike Drivers Education” at 3 middle schools. Assisted with after school Bike Club at Mendota Elementary school serving 20 students and helped deliver bike education to 80 Badger Rock Middle School students and supported neighborhood bike rides. Partnered on a once a week Walking School Bus from East Madison Community Center to Hawthorne Elementary. Interest in walking and biking education has started to grow since classes were put on hold during the pandemic.

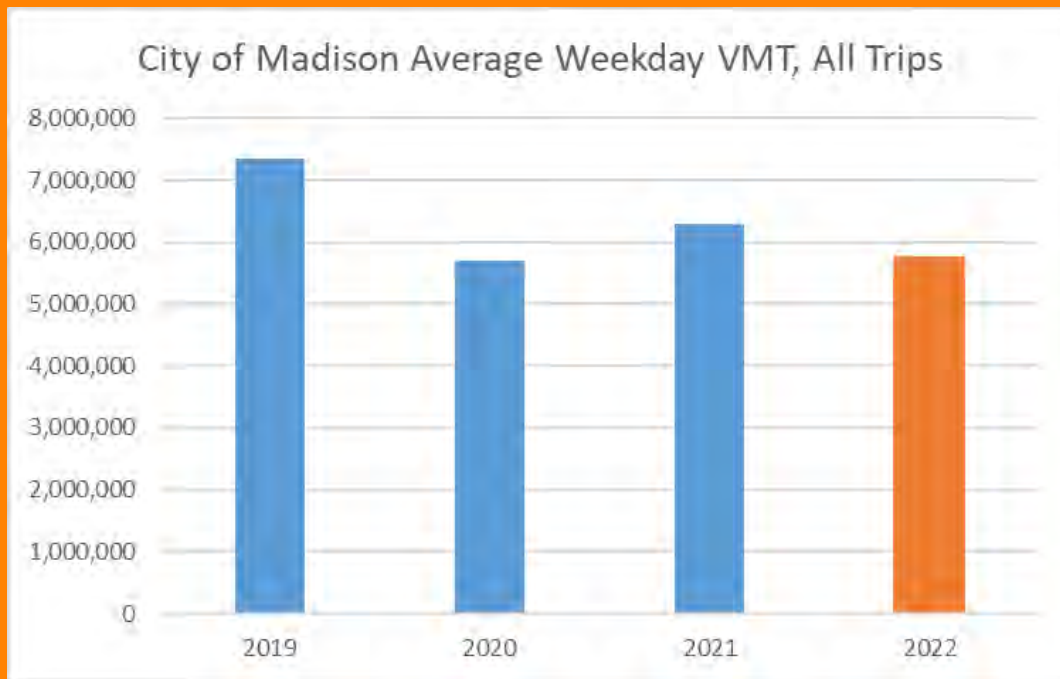




# Vehicle Miles Traveled

In order to achieve a safe transportation system, a road safety policy must be integrated into all planning efforts and create safe and efficient conditions for walking, biking and transit. Land use and transportation integration are critical to ensuring the design of a safe transportation system. The City’s Complete Green Streets Guide was approved in January 2023 and will help bring together issues around safety, multi-modal transportation connectivity, sustainability and land use.

The Vehicle Miles Traveled (VMT) data below includes data on all trips in the City of Madison including trips that pass through the City without stopping. These calculations use StreetLight data. 2019-2021 uses data from Location Based Services that come from mobile devices (for example, online maps). In 2022 StreetLight switched to using Connected Vehicle Data that comes directly from motor vehicles. Because of this switch in data types, StreetLight recommends not directly comparing the data.



2019-2021 StreetLight data used Location Based Services  
2022 StreetLight data used Connected Vehicle Data





# Safe Vehicles

Properly operating vehicles with safety equipment can significantly decrease the severity of crashes.



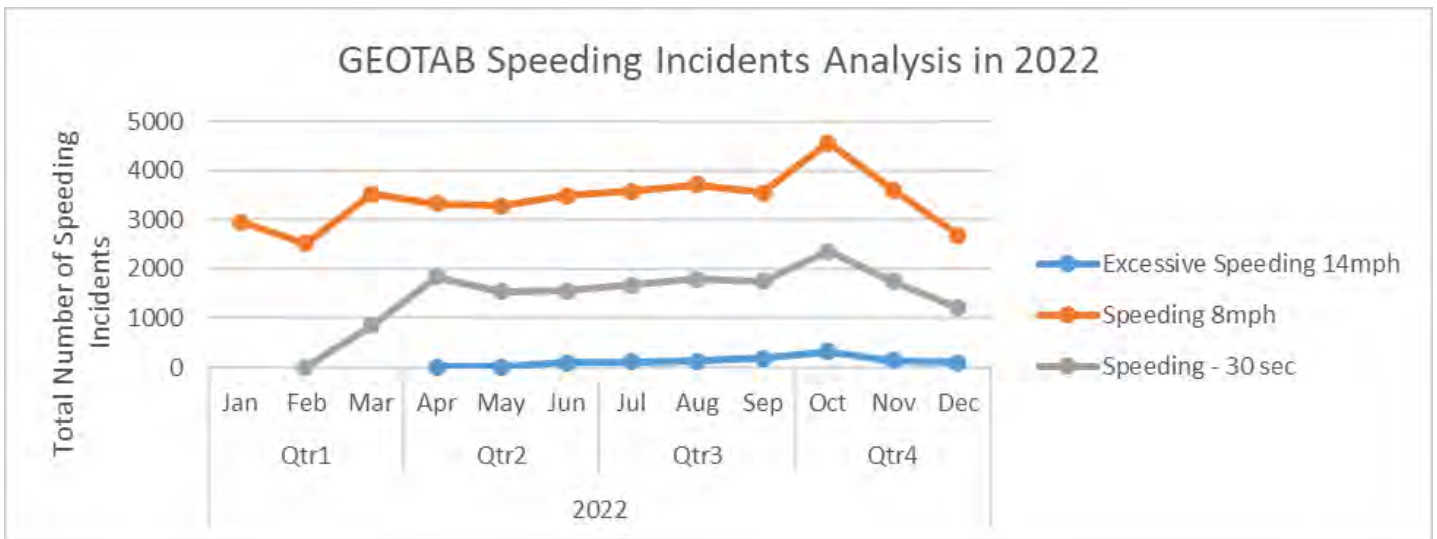


# Employee Training — Defensive Driving Training

Fleet offers a two hour Vision Zero Defensive Driving training program for City of Madison employees. This training aims to explain safe driving practices and minimize collisions. Topics covered include Vision Zero, speed, winter weather driving, road signs, regulations, collision costs, and Wisconsin state laws. Nearly **100 employees** from Fleet, Human Resources, Building Inspection, Clerk's Office, and Finance completed this training in 2022.

## Percent of City Fleet with Safety Features

In 2022, over 600 vehicles were monitored. The graph below displays the monthly count of recorded speeding incidents, including vehicles speeding for 30 seconds or longer. The total number of excessive speeding incidents, defined as exceeding 14 mph over the speed limit, was less than 350.



## Safe Speed Pilot Project

We aim to conduct a pilot project with Magtec's SafeSpeed technology for a 90 day period. This patented technology offers advanced intelligent speed assistance that regulates vehicle speeds in real time based on posted speed limits. By doing so, it helps to reduce the chances of speed related collisions and other potentially serious incidents. This project will evaluate the effectiveness of SafeSpeed technology installed in ten vehicles that were selected based on their mileage and speeding exceptions. We will evaluate the speed assistance in these vehicles' drivers.

## Together for Safer Roads Award:

### Lenin Fierro Vision Zero Fleet Advocacy Award

Fleet Superintendent Mahanth Joishy received the Lenin Fierro Vision Zero Fleet Advocacy Award on behalf of the City of Madison. This award recognizes their efforts in minimizing fleet and traffic collisions in the community. The City of Madison's goal is to achieve zero fatalities by 2035, and this award acknowledges an individual who exemplifies **leadership, positivity, commitment, approachability, and personal dedication** in driving organizations towards Vision Zero objectives.







# Safety Data

Safety Data gives us the tools to understand where injuries and deaths are occurring and what factors are causing the crashes.





# Crash Trends

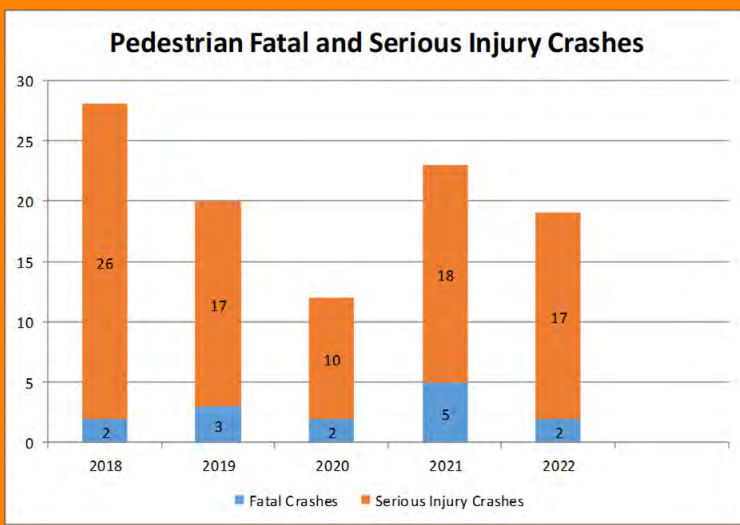
Madison Crash Data, 2019-2022

YEAR	TOTAL CRASHES	NUMBER OF INJURIES	NUMBER OF FATALITIES	NUMBER OF SERIOUS INJURIES	NUMBER OF FATALITIES & SERIOUS INJURIES
2019	5,413	1,738	7	99	106
2020	3,243	1,196	15	111	126
2021	3,361	1,170	17	87	104
2022	3,403	1,143	14	76	90

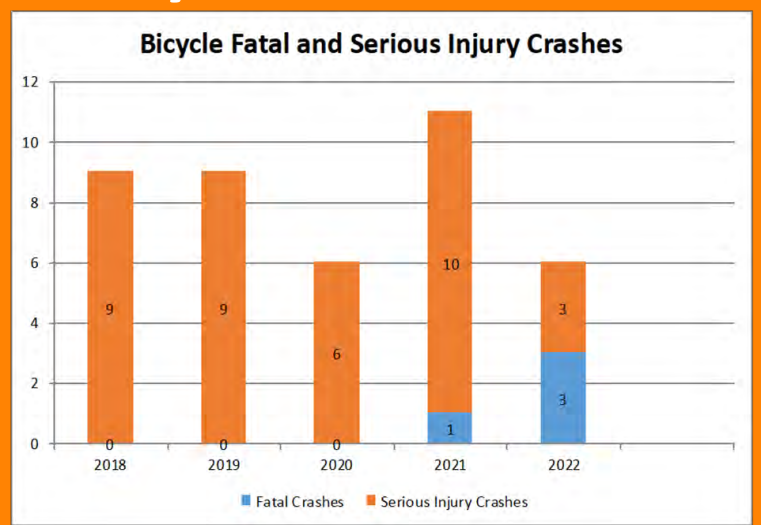
Note 1: Crash data is from Wisconsin crash database maintained by Wisconsin Traffic Operations and Safety (TOPS) Lab.

Note 2: Crash data includes all roadways in the City of Madison limits, with some maintained by other agencies.

## Pedestrian Crash Trends



## Bicycle Crash Trends







# Equity

Equity must be integrated into every component of Madison's Vision Zero initiative.





# Equity Focus Area Projects Overview

- ⇒ 45% of new rapid flashing beacons were installed at crosswalks in equity focus areas
- ⇒ 9/15 high visibility crosswalk projects
- ⇒ 4 new driver speed feedback boards
- ⇒ Twenty is Plenty project launched in the Theresa-Hammersley Neighborhood



## Equity Focus Areas: Resurfacing & Reconstruction Projects

- Kinsman Blvd (Wright St to Stoughton Rd)
- Packers Ave (Tennyson to Darwin Rd)
- Cedar St (Fish Hatchery Rd to Gilson St) & intersection of Cedar/Gilson realignment
- N Bassett St (W Washington Ave to W Main St) & W Washington (Bedford St to Fairchild St)
- Wisconsin Ave (Dayton St to Langdon St)

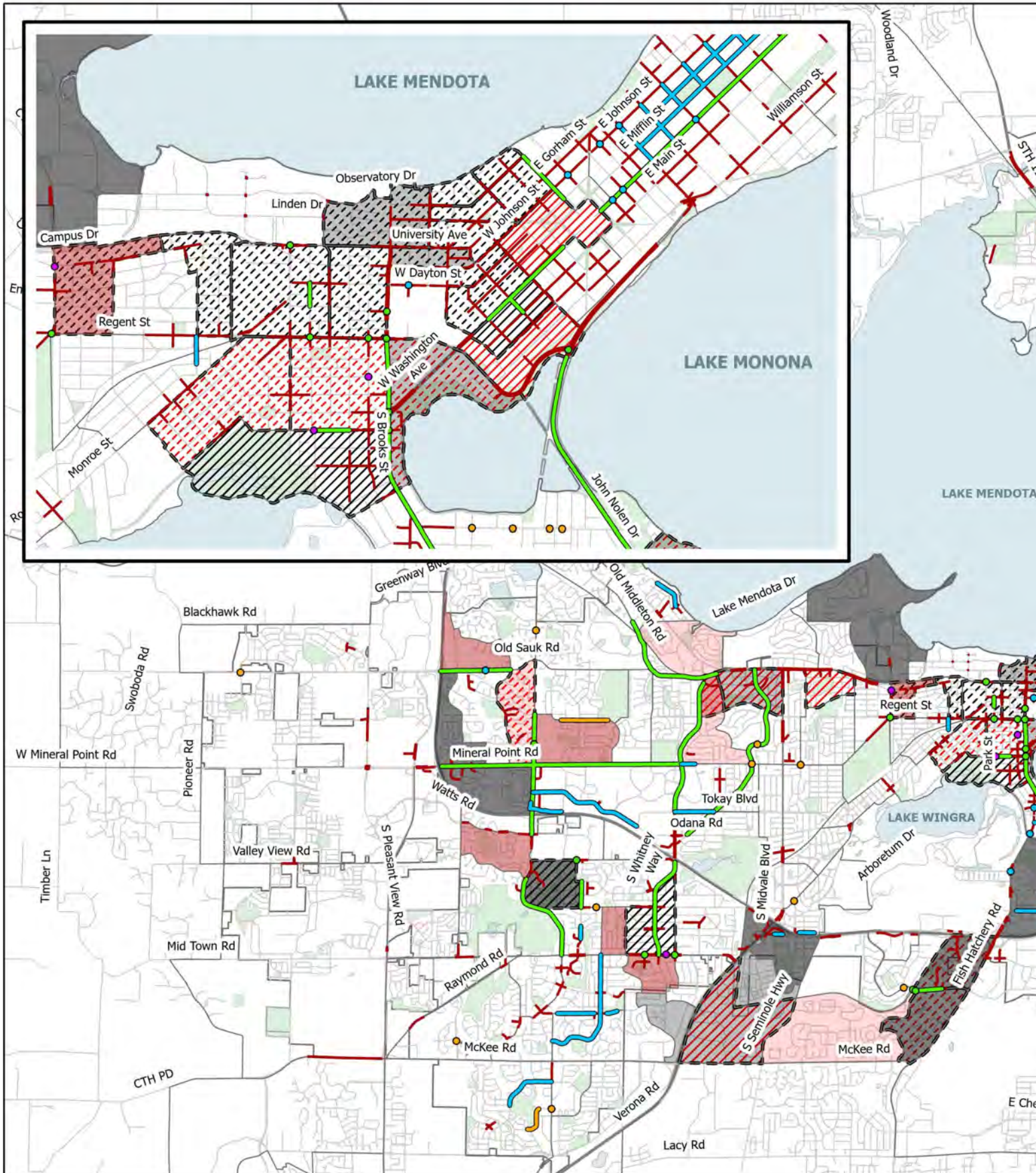
## Project Highlights: South Madison

- Speed limit reduction on S Park St
- High visibility crosswalks at S Park St intersections with Badger Rd and Buick St
- New midblock crossing at bus stop near railroad crossing on S Park St
- Driver speed feedback board on S Park St near The Village on Park
- Bike lane added on W Badger Rd between Catalpa & Cypress Way
- New midblock crossing at Madison College on W Badger Rd
- Flashing beacon crosswalk light at W Badger Rd & Cypress Way
- Cedar Street constructed with sidewalks, bike lanes and improved crosswalks to support grocery store development on S Park St



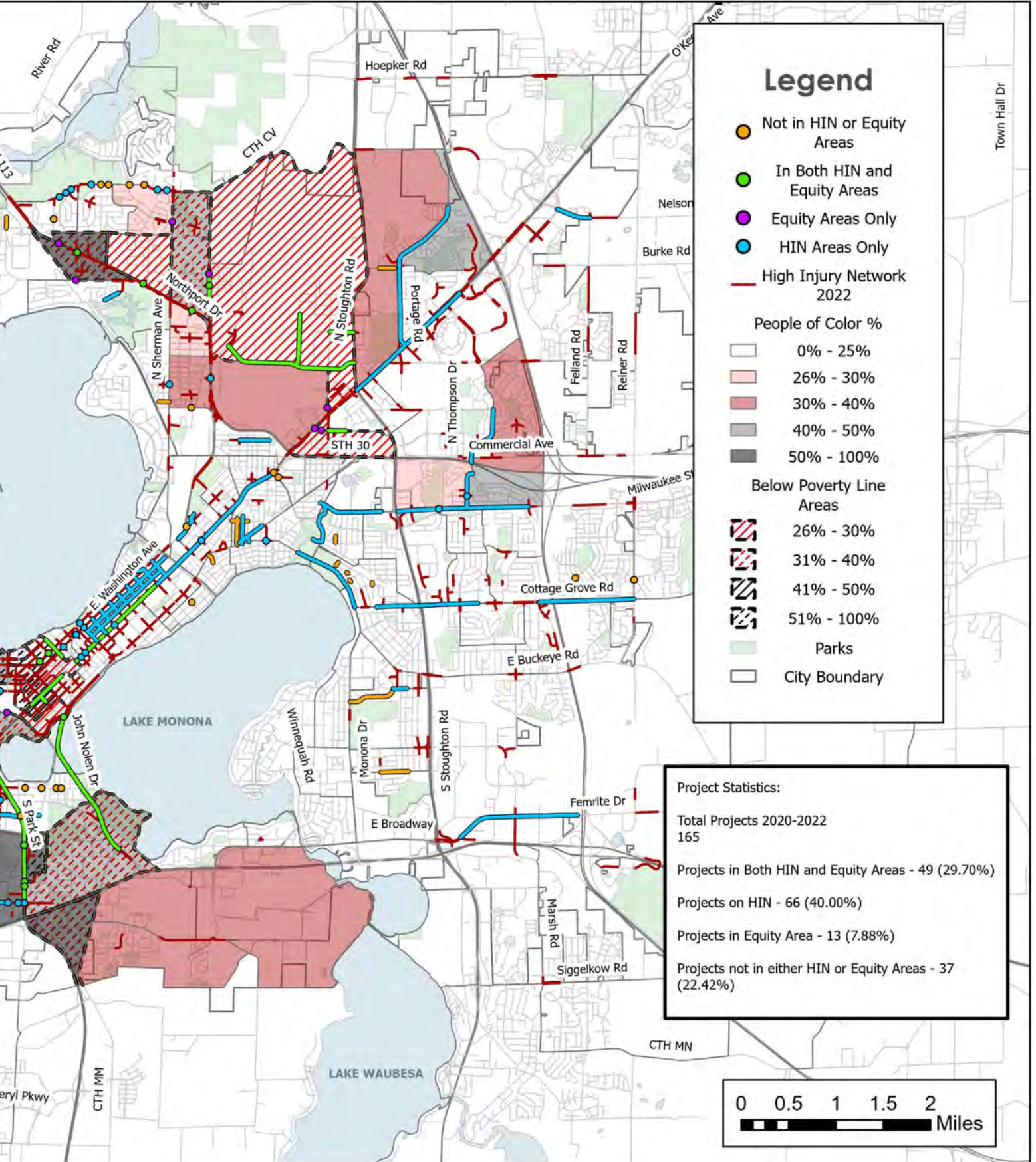


# Improvements on the High Injury Network





The City of Madison has established racial equity and social justice as a core principle in all decisions, policies and functions. This includes Vision Zero.





Asked MPD PIO for some potential photos



# Safety Focused Enforcement

The City is focusing on the most hazardous violations and exploring how enforcement can best support the elimination of fatal and serious crashes.



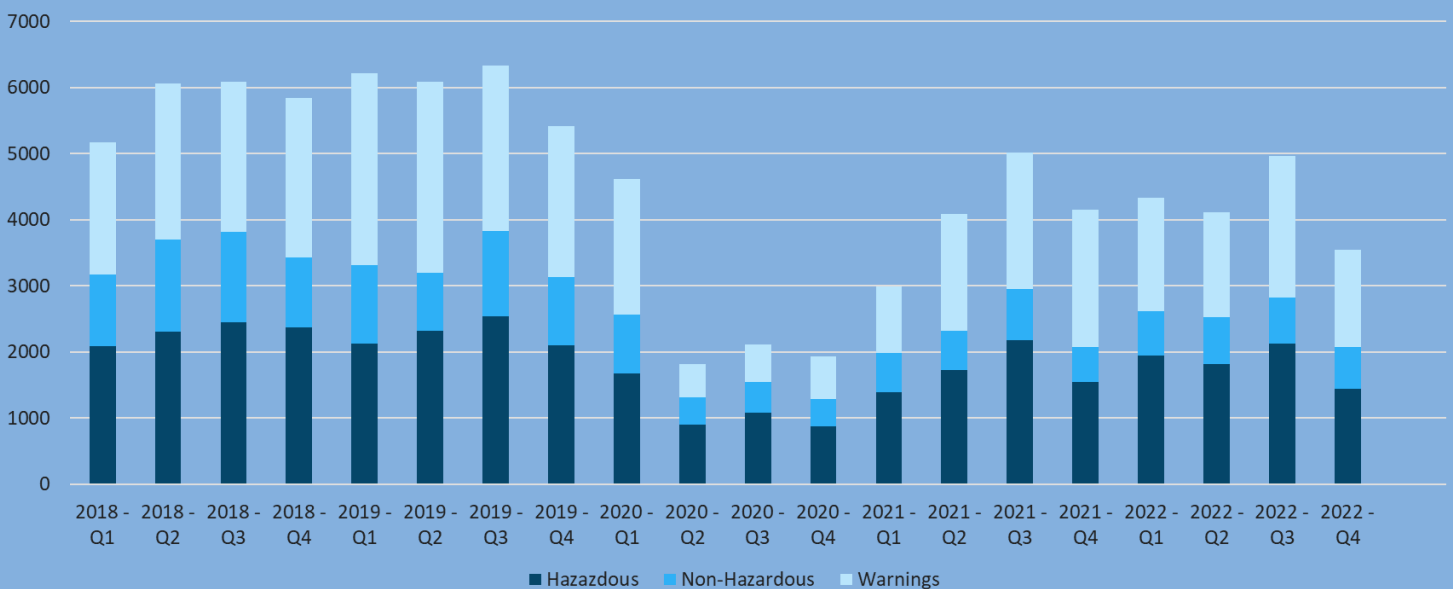


# Traffic Enforcement Overview

The Madison Police Department is proactive in targeting the most dangerous behavior through enforcement. As a part of the Vision Zero team, Police Department staff work collaboratively with other City agencies on public awareness of safety and in support of the implementation of the Vision Zero Action Plan. Data shows that there are several critical issues in Madison for which traffic enforcement can play an important role. These offenses, which put drivers and other road users at the highest risk of death or serious injury, include:

- Driving while intoxicated or impaired
- Speeding or driving too fast for conditions
- Failure to yield

The Madison Police Department continues to de-emphasize non-hazardous violations and support alternative outcomes such as warnings for offences such as registration violations. The chart below shows the overall volume of hazardous, non-hazardous and warnings issues between 2018-2022.



## 2022 High Visibility Enforcement Grant Campaigns

The Wisconsin DOT Bureau of Traffic Safety offers grants to law enforcement partners to reduce traffic fatalities and injuries on Wisconsin roads. These campaigns are intended to educate the public on the traffic enforcement with a goal of voluntary compliance with safe driving laws. In Madison, grants funded the following focused enforcement efforts:

- 64 Impaired Driving
- 40 Seatbelt Safety
- 32 Speeding
- 28 Pedestrian/Bicycle Safety

In 2022, an average of 25 citations and warnings were issued for each of the traffic safety grant deployments and accounted for 1,702 citations and 2,657 warnings.



Vision Zero is a data driven strategy intended to eliminate traffic deaths and severe injuries on all roadways, bikeways and sidewalks by 2035.

The City of Madison Vision Zero initiative strives to improve safety for all roadway users throughout the city, improve the identified high injury locations, build a positive safety culture, and take a systems approach, all in an effort to prevent avoidable fatal crashes. In addition, a reliable, safe, connected network must be available so people can travel by walking, biking and transit as well as driving.

***Safety starts with all of us.***

People make mistakes so we must create more forgiving infrastructure and change systems to prevent crashes from being serious and fatal.

**[www.cityofmadison.com/VisionZero](http://www.cityofmadison.com/VisionZero)**

