



Forward to Vision Zero – Madison

Safe System for Vulnerable Roadway Users



FY 2023 Safe Streets and Roads for All (SS4A) Funding Opportunity

Project Type: Implementation Grant
FY 2023 Funds Requested: \$6,286,748

Primary Contact:

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Supporting Information can be found at:

<https://www.srfconsulting.com/city-of-madison-ss4a/>



Office of the Mayor

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July 7, 2023

The Honorable Pete Buttigieg
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Secretary Buttigieg,

Making Madison's streets safe for everyone has been one of my top priorities. In early 2020, I challenged staff across departments to join me in adopting a Vision Zero approach and find solutions to the increasing numbers of serious traffic crashes Madison was experiencing. Working together in an interdepartmental team, we created our first Vision Zero Action Plan that outlines how we will reach our goal of eliminating traffic fatalities and serious injuries by 2035.

Using a Safe Systems approach, we have implemented proven safety countermeasures throughout Madison. This included setting appropriate speed limits, enhancing crosswalk visibility, adding better lighting, and installing traffic calming measures. We have been making safety improvements to our streets during every reconstruction and resurfacing project and have funded a capital program called Safe Streets Madison to fund projects on for streets not scheduled for a larger capital project.

However, infrastructure is just one component of the City's Vision Zero program. We have been implementing many supportive policies and programs as well. The City recently approved a Complete Green Streets Guide to provide more direction to our longstanding Complete Streets policy. We are implementing a new Transportation Demand Management policy, reducing our community's dependence on the automobile. We redesigned our transit network to provide more accessibility to underserved neighborhoods, and are getting ready for the opening of the Bus Rapid Transit system in fall of 2024.

Madison's new systematic approach to prioritize safety has proven to be effective. Traffic fatalities and serious injuries declined by 17% in 2021 and by a further 13% in 2022. We're proud of our progress to date, but there is much more work to do. The SS4A grant program will help enable Madison to capitalize on this momentum to make decisive strides towards the goal of becoming the first mid-sized city in the United States to achieve zero traffic deaths and serious injuries.

The projects and initiatives we are proposing are designed to impact many areas of the city with a focus on ensuring the safety for people walking, biking and accessing our new transit routes. In conversations on traffic safety and mobility we have heard from our residents the importance of safe walking routes and the safety and accessibility of intersections along our transit routes. We also know that some streets like East Washington Ave between US Highway 30 and Annamark Drive lack safe facilities for people walking and biking. I know that all of these projects whether large or small in scale will make a positive impact in our community. The City has already committed the required \$1.572 million local share in the current City

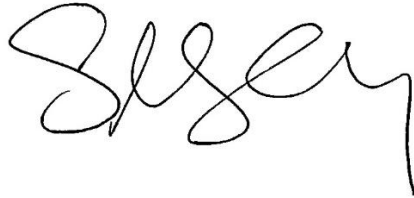
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budget, and we are committed to successful delivery of the projects and initiatives if we are awarded this grant.

Ensuring our streets are safe for everyone regardless of who they are or how they travel and eliminating traffic fatalities and serious injuries is an ambitious goal but it is also imperative to the health and wellbeing of our city. I am convinced that Madison can be a model city for Vision Zero and I appreciate you taking the time to consider our application.

Sincerely,

A handwritten signature in black ink, appearing to read "SR-Conway". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Satya Rhodes-Conway
Mayor

CC: Paul Teicher, Safe Streets and Roads for All Program Manager



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I. Overview

The City of Madison, Wisconsin (herein known as the City) is requesting \$6,286,748 in federal discretionary funding through the FY 2023 Safe Streets and Roads for All (SS4A) – Implementation Grant program. The requested funds will deploy **low-cost, high-impact strategies** and **FHWA Proven Safety Countermeasures** focused on a Safe System Approach to prevent fatalities and serious injury crashes amongst vulnerable roadway users, including pedestrians, bicyclists, and people riding public transit. Funding is also requested for supplemental planning and demonstration projects to measure potential safety benefits through data collection and evaluation, and support continuous improvements in data-driven decision-making.



Madison, located in Dane County, Wisconsin, is the 81st most populous city in the United States (population 269,840) and is often recognized as one of the best places to live in the country. Madison’s downtown lies on an isthmus between two lakes and is adjacent to the University of Wisconsin-Madison (UW) campus with nearly 50,000 students enrolled in 2022. Students attending UW are encouraged to leave their car at home and walk, bike, or ride transit which is available at no additional cost to the students. Madison is home to over 85 miles of trails and in 2023, is constructing its first East-West bus rapid transit (BRT) system to provide better access to jobs, education opportunities, and recreation, reduce travel times, and improve transit equity throughout the region. Madison is also recognized a [Platinum city for bicycling](#), (one of five communities nationwide and the only city in the Midwest) by The League of American Bicyclists and a [Gold city for walking](#) (one of 15 communities nationwide) by the Walk Friendly Communities program.

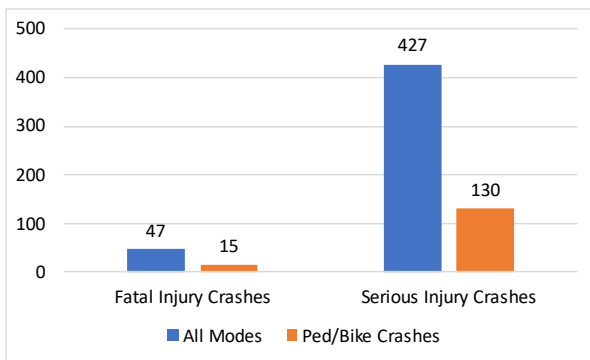


Figure 1. Fatal and Serious Injury Crashes by Mode

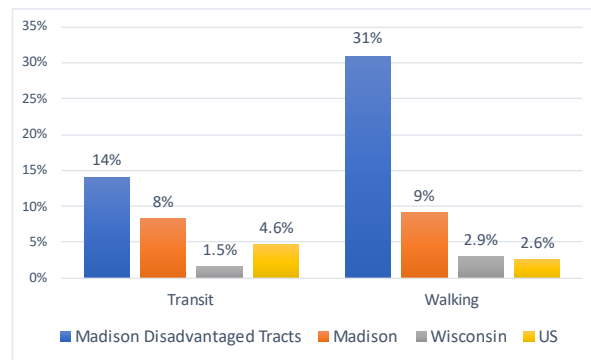
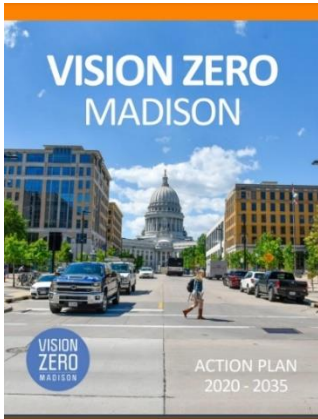


Figure 2. Commuters Ages 16 and Above (ACS 2020)

Despite these distinctions, 47 people died¹ from all crashes on Madison streets between 2017 and 2021, and 427 were severely injured². Of these, pedestrian and bicyclists’ crashes make up nearly 32 percent of the fatal (15) crashes and over 30 percent of the severe injury crashes (130), as shown in Figure 1. The issue is further compounded for disadvantaged communities in Madison (Figure 2), as a far greater percentage of the population uses walking and transit as the primary mode of transportation, compared to all census tract within Madison, the state of Wisconsin, and the United States ([2020 ACS data](#)).

¹ FARS dataset, 2017-2021

² University of Wisconsin Madison TOPS lab crash dataset 2017-2021.









The City of Madison believes that fatalities and injuries on city streets are preventable and has committed to a proactive approach of prioritizing human life over the movement of motor vehicles. On March 29, 2022, the [Vision Zero Madison](#) plan was officially adopted with an aim to eliminate all fatalities and serious injuries that occur as the result of traffic collisions on city streets by 2035. In a parallel and coordinated effort the City merged its various initiatives and existing programs under one umbrella program called [Safe Streets Madison](#) (SSM). This program incorporated data analysis from Vision Zero High Injury Network (HIN), integrated equity into decision-making, and focused on improving safety for vulnerable users. As a result, a [prioritized list](#) of projects and strategies was developed to:

- implement traffic safety measures focused on preventing fatal crashes and serious injuries,
- improve connectivity by closing gaps in the city’s all ages and abilities pedestrian and bicycle networks, and
- ensure that improvements are implemented in a fair and equitable manner.

The City submitted an implementation grant application for FY 22 SS4A awards, however, was unsuccessful in securing implementation funding. The feedback obtained from the debrief was considered and the implementation approach was revised with a particular emphasis on incorporating FHWA’s [Proven Safety Countermeasures](#) and [Pedestrian Safety Guide and Countermeasure Selection System](#), for the most vulnerable roadway users – people walking, biking, and rolling. The project selection was revised to improve the focus of the safety problem at hand, implementation methodology, and project readiness by right sizing the scope and number of projects.

This application focuses on two corridor improvement projects, one systemwide improvement project consisting of 21 intersections on the HIN/transit network and one systemwide improvement project consisting of six shared-use path crossing projects on HIN; one preliminary engineering and design project, and two Safe People Initiatives consisting of Impaired Driving Countermeasures and Madison Police Department (MPD) trainings.

 2	 1	 1	 1	 2	 7
Corridor Improvement Projects	System-wide Improvement Projects at 21 intersection locations along HIN	System-wide Improvement Projects Shared-Use Path Crossing Projects at 6 locations	Preliminary Engineering and Design Project	Safe People Initiatives	Supplemental Planning & Demonstration Projects
Implementation Components					

All the projects and strategies have a common goal of addressing safety issues affecting vulnerable roadway users. The projects can be classified into standard evidence-based interventions such as:

- safe pedestrian access (sidewalks, accessible pedestrian push buttons, ADA ramps),
- safe pedestrian crossings (pedestrian signal upgrades, crosswalks visibility enhancements, median and pedestrian refuge islands, rectangular rapid flashing beacons (RRFBs), wayfinding signage),
- safe bicycling access (protected bike lanes), and
- vehicular speed management (city arterial roadway traffic calming).

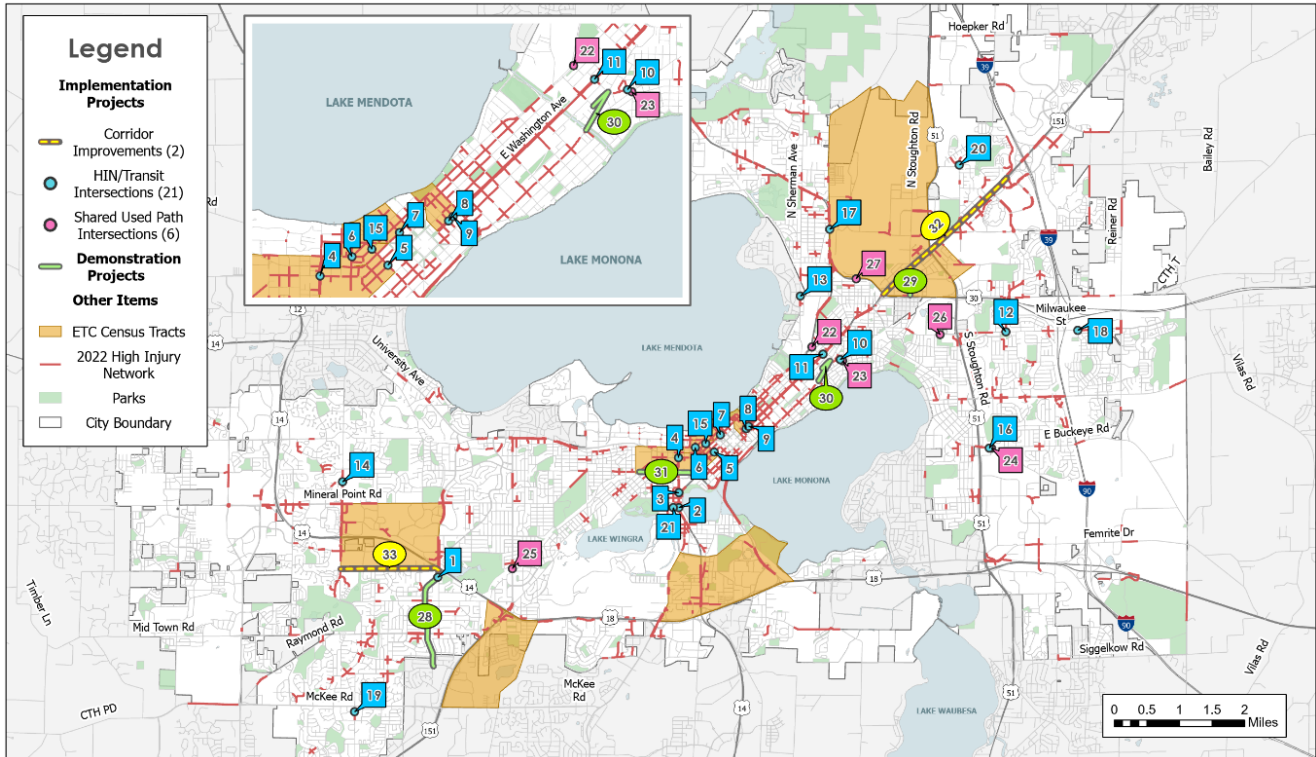


Figure 3. [Implementation and Demonstration Projects](#)

In addition to the implementation projects, the City will carry out seven supplemental planning and demonstration projects to collect data and evaluate safety improvements such as road safety audits, using semi-permanent materials for protected bike lanes and pedestrian crossing improvements, [asphalt art](#), school street trial, safe driving practices for 65+ and teen drivers, HIN updates, and equitable engagement plan development. The complete list of all projects and activities is available [here](#).

“Forward” is Wisconsin’s Motto to continuously drive to be a national leader. Since Madison started its Vision Zero initiative, funding for safety improvement projects quadrupled. The systematic approach to prioritizing safety has shown positive results in Madison, with fatal and serious injury crashes declining by 27 percent in the first half of 2023 compared with the same period in 2021. The SS4A grant award will help ensure Madison capitalizes on the moment to make bigger and decisive strides towards the goal of becoming the first mid-sized city in the United States to achieve zero traffic fatalities or serious injuries.


II. Location


The Project is located in Madison, the capital city of Wisconsin and the county seat for Dane County. Madison is an urbanized area with a population of 269,840 according to 2020 U.S. Census American Community Survey (ACS) data. Additionally, 2020 ACS data documents the population of Madison metropolitan area as 660,212. Madison is the regional center for employment, education, and health care.

Ten census tracts (4.08, 6, 11.01, 14.01, 16.03, 16.04, 16.06, 17.07, 25, and 26.01) within the City’s jurisdiction are categorized as Disadvantaged Census Tracts according to the USDOT Equitable Transportation Community Explorer (ETCE) tool. These census tracts have a combined population of 44,600 residents and represent 16.5 percent of the population of Madison. Fourteen of the 32 Implementation sub-projects (B+C) identified to implement safety improvements (corridor, systemwide, and preliminary engineering) using SS4A funds are located in eight of the disadvantaged census tracts mentioned above. In addition, Supplemental Planning and Demonstration projects are spread over the entire HIN in Madison.

SS4A Application Benefits

Eight (8) of 10 Disadvantaged Tracts in Madison

 32,000 people

 \$5.3 million+

Madison’s High Injury Network

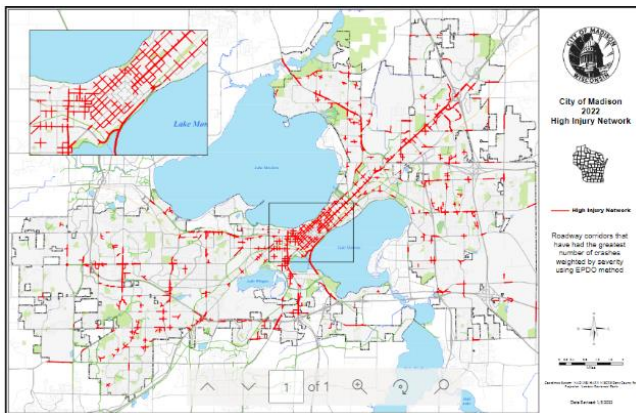


Figure 4. [HIN Map](#)

In order to evaluate the safety impacts of the fatal and serious injuries in Madison, mapping of the High Injury Network (Figure 4) was adopted in the Vision Zero plan. Details of HIN development are discussed in the next section.

[Several maps](#) were created and evaluated for different focus areas including all crashes, pedestrians and bicycle crashes, speeding, hit and run, alcohol and drugs related, dark lighted condition, dark unlighted condition, and various seasons. The sites with the highest likelihood of fatal or serious injury crashes were then included on the HIN map.

Locations of the projects and strategies were selected to implement proactive solutions to the safety challenges at hand and provide maximum benefits to the underserved communities along the HIN. For example, while Schroder Road did not register fatal or serious pedestrian injuries between 2017 and 2021, the project corridor experiences several near-misses, and a [recent hit and run](#) (2023) which resulted in one pedestrian fatality. In addition, there was a vehicular serious crash in 2019 when a motor vehicle yielded to a pedestrian (pedestrian was not injured). There also has been a fatal vehicular crash in 2022 and a serious vehicular crash in 2023 on Schroeder Road showing safety trends are heading in the wrong direction.

III. Response to Selection Criteria

1. Safety Impact

1.1 Description of the Safety Problem

Despite Madison's reputation as a pedestrian and bicycle friendly community, people walking and biking are overrepresented in the City's fatal and serious injury collisions. **People walking or cycling are involved in only 3.8 percent of total crashes, yet account for more than 30 percent of people killed between 2017 and 2021.** In 2018, the Greater Madison MPO conducted a comprehensive review of pedestrian and bicycle crashes in the region. Data showed that 73 percent of pedestrian crashes and 80 percent of bicycle crashes occurred at intersections. The City's [2021 Crash Facts Report](#) also reinforced that finding as all but ten percent of pedestrian crashes and five percent of bicycle crashes happened at intersections in 2021. The proposed SS4A systemwide projects focus on intersections along the City's transit network and shared-use

paths that are on the City's High Injury Network. The corridor projects selected are in locations that have had fatal and serious pedestrian and bicycle crashes.

Table 1. Crashes in Madison

	Fatal Injury Crashes	Serious Injury Crashes	Minor Injury Crashes	Possible Injury Crashes	Property Damages Only
All Modes	47	427	2,605	2,894	17,020
Bike/Pedestrian	15	130	472	182	77

Source: FARS & UW TOPS Lab Crash Data, 2017-2021

1.2 Safety Impact Assessment

The City's approved HIN map was developed in collaboration with the University of Wisconsin's Traffic Operations and Safety (TOPS) Laboratory. The higher risk locations were identified by evaluating 4,590 intersections and 8,855 non-intersection segments throughout the city. Several focus areas, including pedestrian and bicycle crashes and City equity priority areas, were evaluated to help better understand specific traffic safety concerns and equity issues.

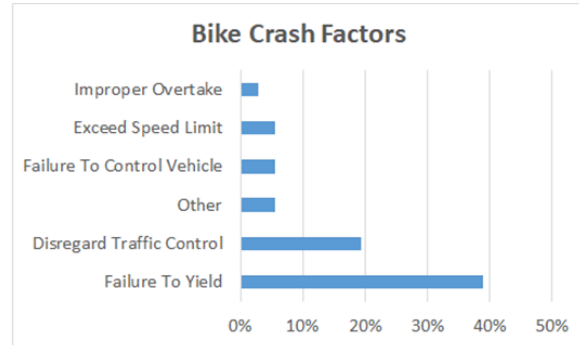
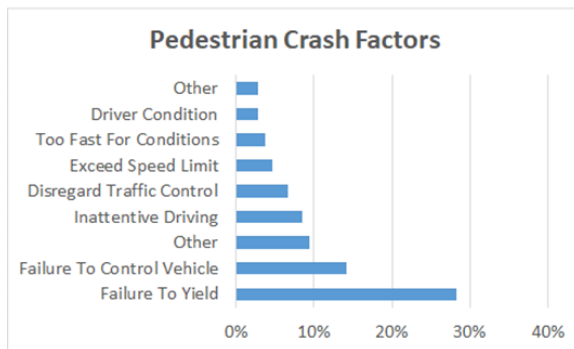
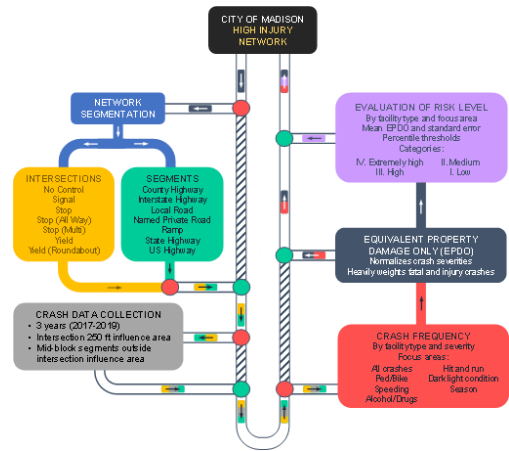


Figure 5. Factors Causing Bike and Pedestrian Fatal and Serious Injury Crashes

As seen in Figure 5, the primary factor causing fatal and serious crashes in bicyclists and pedestrians in Madison is Failure to Yield. The proposed projects and strategies focus on improving street and intersection design through implementation of low-cost and high-impact strategies based on FHWA's [Proven Safety Countermeasures](#), [Pedestrian Safety Countermeasures](#), and [Bike Safety Countermeasures](#) listed in [Table 2](#). The specific strategies selected for each location focus on **prioritizing safety over speed, improving visibility of pedestrians and bicycles at crossings, increasing accessibility, and reducing conflicts between people driving, walking, and biking.**

Table 2: List of Safety Improvements

Corridor Improvements	Underserved Community	FHWA Proven Safety Countermeasures						Pedestrian ¹ & Bicycle ² Safety Guide Countermeasures							Other		Cost Estimate ³		
		Crosswalk/Visibility Enhancements	RRFB	Medians & Pedestrian Refuge Islands	Lighting	Walkways	Appropriate Speed Limits	Enhanced Signing	Speed Monitoring	Transit Stop Improvements	Raised Intersection or Crosswalk	Pedestrian Signals, APS, Push Buttons	Neighborhood Identity & Wayfinding	Shared-Use Path & Separated Bike Lanes	Median Trees	Additional Community Engagement			
East Washington Ave (US Hwy 30 to Annamark)	Yes	●	●		●	●		●	●			●				●		\$2,642,125	
Schroeder Rd	Yes	●	●	●			●	●	●	●	●				●	●		\$962,780	
	2	2	2	1	1	1	1	2	2	1	1	2	2	1			1	2	\$3,604,905.00

Systemwide Improvements	Underserved Community	FHWA Proven Safety Countermeasures						Pedestrian ¹ & Bicycle ² Safety Guide Countermeasures							Other		Cost Estimate ³			
		Crosswalk/Visibility Enhancements	RRFB	Medians & Pedestrian Refuge Islands	Lighting			Enhanced Signing	Speed Monitoring	Transit Stop Improvements	Raised Intersection or Crosswalk	Pedestrian Signals, APS, Push Buttons	Neighborhood Identity & Wayfinding	ADA Curb Ramps	Curb Extensions	Bicycle Markings		Path Ramp Widening	Protected Intersection	Bicycle Signal
HIN Intersections on Transit Routes																				
S Park St & Erin St	No	●		●					●						●	●			\$101,200	
Erin St & S Brooks St	No	●												●					\$27,600	
S Park St & Vilas Ave	No	●						●											\$6,900	
N Park St & W Dayton	Yes	●		●										●	●				\$273,700	
N Frances & W Gilman St at University Ave	Yes	●								●	●								\$13,685	
W Johnson & N Carroll St	Yes	●									●								\$13,685	
N Sherman Ave & Commercial Ave	No	●									●				●				\$18,285	
S Gammon & Tree Ln	No	●		●							●	●		●					\$335,685	
W Gorham & N Broom St	Yes	●									●								\$13,685	
E Buckeye Rd & S Stoughton Rd Service Rd	No	●									●								\$20,585	
International Lane & Packers Ave	Yes	●													●				\$18,285	
S Whitney Way & Gilbert Rd	No	●	●	●				●					●	●					\$70,150	
N Broom St & W Mifflin St	Yes	●	●					●											\$34,500	
E Washington Ave & N Hancock St	Yes	●	●	●	●			●											\$64,400	
E Johnson St & N Franklin St	Yes														●		●		\$27,600	
Atwood Ave & Corscot Ct	No				●														\$57,500	
E Washington Ave & N Second St	No	●	●		●			●											\$87,400	
Milwaukee St & Swanton Rd	No	●									●								\$96,600	
Milwaukee St & Milky Way	No	●	●					●		●									\$39,100	
Portage Rd & Donald Dr	No	●		●									●						\$21,850	
Maple Grove Dr & Mader Dr	No	●	●	●	●			●					●						\$104,650	
Shared-Use Path Crossing Improvements																				
E Johnson/Second at Demetral Path	No										●								\$115,000	
Eastwood/Division at Capital City Path	No										●								\$172,500	
Buckeye at Capital City Path	No							●											\$23,575	
Midvale at Southwest Path	No		●					●											\$59,800	
Milwaukee at Eastmorland Park Path	No			●	●			●				●		●	●				\$179,285	
Aberg at Shopko at Starkweather Creek Path	Yes	●		●				●	●			●		●	●			●	\$372,485	
	9	20	7	9	6			11	2	1	5	9	2	3	5	7	2	1	1	\$2,369,690

1: Additional Pedestrian Safety Countermeasures from FHWA Information
 2: Additional Bicycle Safety Countermeasures from FHWA Information
 3: See Appendix Project Budget document for further breakdown of cost estimates by corridor.

Madison’s [Vision Zero](#) and [Safe Street](#) plans already include some metrics related to several key performance indicators (KPIs) broken down by Safe Streets, Safe People, Safe Vehicles, Safety Data, Equity, and Safety Focused Enforcement categories. These measures help determine the effectiveness of projects and strategies as well as safety benefits over time. Additional evaluation of projects will help ensure that the City is able to reach its goal of eliminating fatal and serious crashes.

1.3 Implementation Costs

The total itemized cost of projects and strategies, including capital costs for infrastructure, behavioral, and operational safety improvements are \$7,858,435 listed [here](#). This includes \$6,286,748 in federal cost share (80 percent) requested through this application, and \$1,571,687 in local cost match (20 percent).

2. Equity, Engagement, and Collaboration

The Vision Zero Action Plan and Safe Streets Madison Program are part of a larger effort to improve not just traffic safety in Madison but to also further the City’s broader equity goals. In 2013, the City launched the [Racial Equity and Social Justice Initiative](#) that focuses on eliminating racial and social inequities in municipal government by implementing equity strategies that influence City policies and budgets, City operations, and the community.

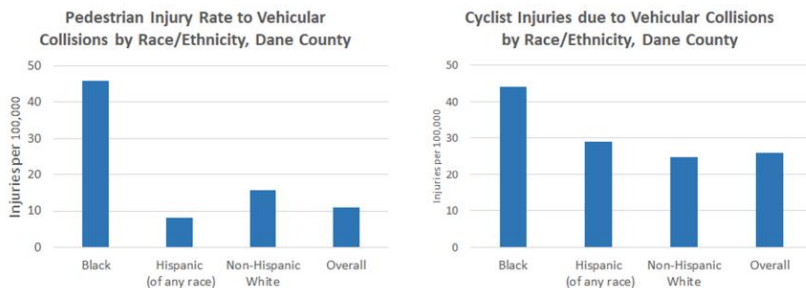


Figure 6. [Transportation Impacts by Race](#)

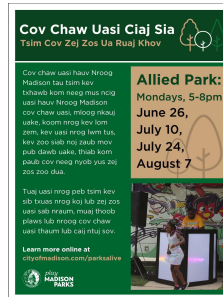
(DHS) that shows significant racial and ethnic disparities in both the rates of injury and death across all forms of transportation (Figure 6). In fact, the rate of pedestrian injury for black residents in vehicular collisions is more than four times that of all general population and cyclist injury rate is about 1.6 times higher.

These inequities were also confirmed through the City’s community outreach and engagement initiative, [Let’s Talk Streets](#), which integrates community voice in the design and function of city streets. Through the initial engagement phases the City developed a set of "Street Values" to guide street design and take a people-centered approach that centers equity.

In alignment with the equity analysis, the proposed projects are seeking SS4A funding through this application to ensure equitable investment in underserved communities in preventing roadway fatalities and serious injuries, focused on vulnerable roadway users. Of the total Implementation project cost (\$6.86 million), 78 percent, or over \$5.32 million will be invested in improvements in eight of the ten disadvantaged tracts in Madison. [Nine initiatives](#) consisting of numerous public meetings, open houses, social media platforms, and various other activities have been conducted in the past year, specific to the Implementation projects.



In 2022, the City of Madison began hosting events in underserved communities at their local park. The goal of these [Parks Alive events](#) is to help foster strong neighborhoods and improve public safety. The Vision Zero team uses these events to talk to residents about traffic safety concerns and priorities while interacting with youth to discuss walking and biking safety. In the summer of 2023, the Vision Zero staff team will attend around 20 Parks Alive events to build trust with residents and connect with neighborhoods to better understand their concerns.

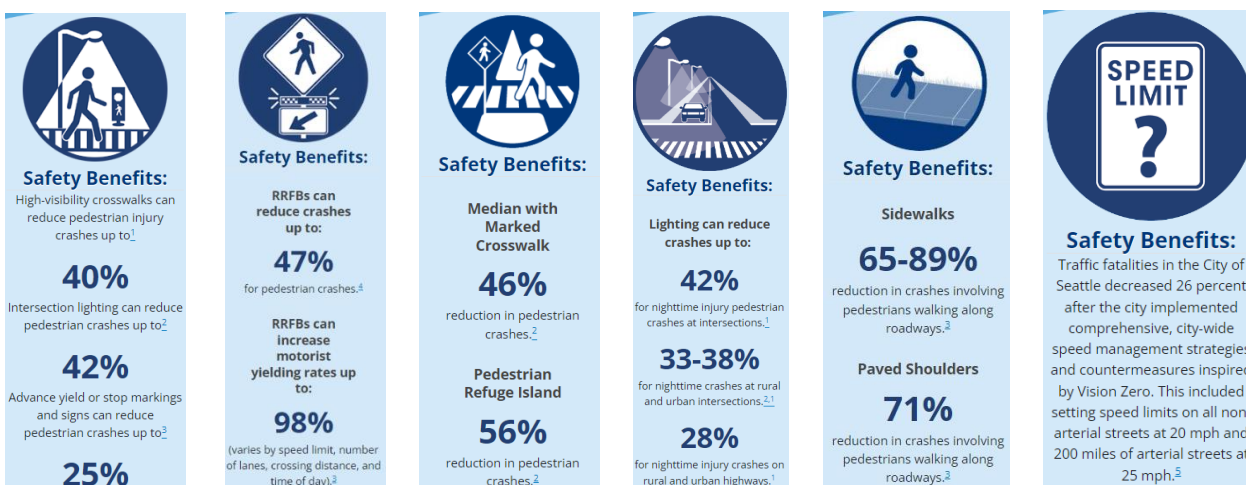


The Project is immensely supported by the various stakeholders as documented through the Letters of Support gathered in [2023](#) and [2022](#). Madison City Council passed a [resolution](#) in June 2023 to support the City’s application for the SS4A program. The City has made big strides to improve equitable investment in underserved communities in Madison to prevent traffic fatalities and serious injuries. Moving forward, the City proposes implementing, as part of this funding request, enhanced community outreach and engagement initiatives to even better integrate equitable community feedback in its decision-making processes.

3. Effective Practices and Strategies

3.1 Create a Safer Community

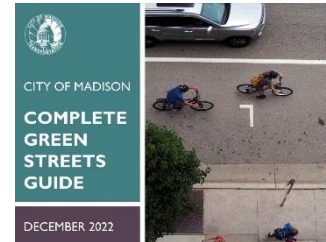
FHWA’s [Proven Safety Countermeasures](#) continues to be a leading guide to addressing safety concerns on a variety of Madison streets. Vision Zero and Safe Streets Madison follow the Complete Streets and Safe System Approach in all their work. The City has reduced speed limits on over 25 miles of City streets since launching these initiatives and focused funding on low-cost and high-impact improvements like **adding RRFBs, pedestrian islands, curb extensions and making signal improvements.** The City’s reconstruction and resurfacing projects have added safety elements such as **raised path crossings, filled sidewalk gaps, added buffered bike lanes, narrowed travel lanes, and added traffic calming features.** However, there is much more work that needs to be completed if the City is to meet its goal of eliminating serious injury and fatal crashes by 2035. The proposed projects include specific improvements to better address equitable safety outcomes as well as a mix of Proven Safety Countermeasures, Pedestrian Countermeasures, and Bike Countermeasures that are low-cost, high-impact and improve safety over the entire HIN, as seen in Table 2. The detailed scope of work for all projects can be found [here](#).



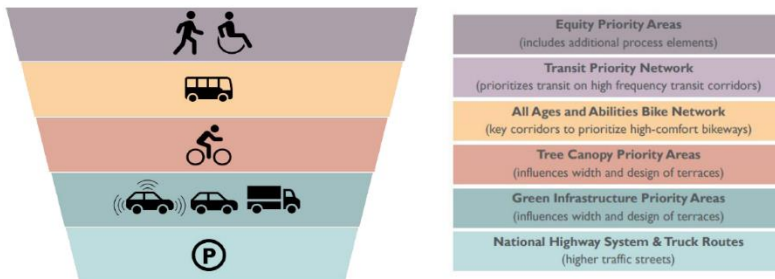
The City is also requesting funds through this application for other items from the Safe Systems Approach specifically related to Safe People. The first element is related to impaired driving, an ongoing factor in fatal and serious crashes in Madison and across Wisconsin. The second element is focused on Madison Police Department (MPD) enforcement training for pedestrian and bicyclist safety. The City also funds a number of related projects including youth education efforts, bike light giveaways targeting students and low-income residents, and campaigns targeting issues like yielding at crosswalks.

3.2 Complete Streets

Madison has a history of designing streets to accommodate all modes of travel. In 2009, the City reaffirmed its [commitment](#) to Complete Streets. With significant population growth and development, and rising concerns about safety and increased awareness of disparities, the City realized a more comprehensive approach was required. In January 2023, the City approved a Complete Green Streets Guide to provide a more detailed framework for implementing Complete Streets while also integrating considerations for green infrastructure to meet sustainability goals.



A key element of the Complete Green Streets Guide is the Modal Hierarchy, which illustrates the order in which the City accommodates the various street users and uses by default across the street network. It is a way of translating street values into design decisions. The Complete Green Streets Guide includes an Equity Framework to increase department coordination and accountability to ensure equitable project outcomes.



The Guide also includes priority networks to ensure that **mobility networks** are connected, and **Tree Canopy and Green Infrastructure** is prioritized where it is needed the most.

The projects included in this application will follow the City's Complete Green Streets Guide to ensure that the projects reflect the City's values, and enhance multi-modal connectivity, resiliency, and sustainability. The Schroeder Road corridor project includes funding to add median trees due to the low tree canopy in the northern segment of the project, within a disadvantaged census tract.

3.3 Safe System Approach

Madison's Vision Zero Action Plan and Safe Streets Madison Program are based on Safe System Approach outlined in USDOT's [National Roadway Safety Strategy](#) (NRSS). Madison's plan employs Safe Streets, Safe People, Safe Vehicles, Safety Data, and Safety Focused Enforcement as its core elements. SS4A funding will enable Madison's implementation of a mix of infrastructure, behavioral and operational safety projects and strategies focused on vulnerable roadway users that walk, bike, or ride transit through Madison streets.



The requested infrastructure projects focus on identified crash factors and the selection of the appropriate safety countermeasures based on both the crash data and the engagement data already available. The projects also include sidewalks or paths that separate pedestrians and bicyclists from motor vehicles on high-speed, high-volume roadways as well as lighting improvements to increase awareness and visibility where crashes have historically occurred after dark.

Similarly, the infrastructure projects directly support evidence-based actions and activities identified in the NRSS and reflect the engagement conducted as part of the Vision Zero planning process. The Safe People projects focus on impaired driving as well as the training needed for Madison police to better address pedestrian and bicycle safety in a systematic way.

The City has committed to producing an annual report to ensure accountability for fully implementing the Vision Zero Action Plan and eliminating fatal and serious injury crashes by 2035. The supplemental planning efforts will help update the HIN with new data, focus more on proactively addressing safety issues, refine the annual report, and build an equitable engagement plan. The City is committed to evaluation, documentation, and measurement of progress towards its goals.

3.4 Innovative Practices and Technologies

The City of Madison has a strong Smart City Initiative and is committed to piloting new practices and technologies. Madison has an award-winning Transportation Systems Management and Operations (TSMO) program to promote system efficiency and safety. The City uses a wealth of data, including subscription to big data services such as Streetlight Data, to manage the life cycle of a project, from initial planning to final evaluation.

The City has partnered with the UW-Madison TOPS Lab to build a [connected corridor](#) that spans four miles along Park Street serving some of the disadvantaged neighborhoods such as South Madison. This project won the Intelligent Transportation Society of Wisconsin Project of the Year Award in 2021. The connected vehicle data will be used to help evaluate safety and equity improvements across projects. This application includes funding to continue working with the UW-Madison TOPS Lab and other partners to evaluate proposed projects and improve data-driven processes.

This application is also requesting funds to trial pavement art and the School Street Concept as safety improvements. Both of these projects have the potential to lead to changes in City ordinances around pavement art and street-use policies and permits and serve as model projects for other Wisconsin communities.

4. Other DOT Strategic Goals

4.1 Climate and Sustainability

The City was an early leader in building community resilience in the face of climate change and economic crises. In 2011, the City published its [Sustainability Plan](#) which was a result of initiatives in action since 2003. The Sustainable Madison Committee (SMC) is currently working on a 10-year update to the plan. The Sustainability Plan serves as a cohesive document that articulates the goals and actions that are critical to the City's mission of sustainability, drawing from commitments in other city plans, such as the Comprehensive Plan, Vision Zero, etc. and making explicit goals that are not captured elsewhere. The projects and strategies prioritized for funding under this application have been developed aligned to the following goals.

Reduce motor vehicle-related pollution such as air pollution and greenhouse gas (GHG) emissions – Strategic goal # 10 from the Sustainability Plan directly supports this goal. The City is committed to reduce greenhouse gas emissions from vehicles community-wide to achieve the City's goal of reaching net zero emissions community-wide by 2050. The proposed projects, in combination with the City's planned Transportation Demand Management Ordinance, will achieve this goal by building a framework of multimodal transit

options, though enhanced protected bike lanes and improved transit access, which will capture single-occupancy vehicle trips. In addition, the proposed projects and strategies support fiscally responsible land use and transportation efficient design that reduces GHG emissions, increases energy savings, air quality improvements, and above all safety.

Increase safety of lower-carbon travel modes such as transit and active transportation - Strategic goals # 12 and 13 from the Sustainability Plan directly support this goal. Several projects identified in disadvantaged census tracts address gaps in the walking network with a focus on improving accessibility for people of all ages and abilities to increase mode share. These improvements increase active transportation options around the city, especially in underserved communities.

Includes storm water management practices and incorporates other climate resilience measures - Strategic goals # 14 to 19 from the Sustainability Plan directly support this goal. These goals ensure the design of city streets is compliant to best management practices that conserve the natural systems and lead to a zero-waste environment while enhancing resiliency of the infrastructure. The environmental review and engineering design of the proposed projects will incorporate these guidelines.

4.2 Economic Competitiveness

Lead to increased economic or business activity due to enhanced safety features, increased mobility, and expanded connectivity for all road users to jobs and business opportunities, including people in underserved communities – The City's Comprehensive Plan includes strategies that combine land use and transportation, as urban living is more desirable when destinations and employment can be conveniently and safely reached by walking, biking, and transit. Projects included in this proposal make transit stops safely accessible and add facilities for walking and biking where gaps currently exist and have known safety issues.



4.3 Workforce

Demonstrate a plan or credible planning activities and project delivery actions to advance quality jobs, workforce programs – The City is an employer committed to ensuring affirmative action, equal opportunity, and nondiscrimination in compliance with Madison General Ordinance Chapter 39, and federal and state laws. Strategic goal # 23 from the Sustainability Plan directly supports this goal. The City aspires to develop a green workforce and create equitable access to green jobs with a [living wage](#). It also identifies and partners with private industry, local business organizations, and local trade unions to create and grow a green jobs pipeline within the community. Recently Madison launched its newest infrastructure program named the [MI-TE program](#) to grow its workforce and prepare trainees for a career in Public Work with the City of Madison.

Madison is recognized as an **early adopter and leader** for providing relatively low-cost solutions that involve technology and active traffic management to reduce congestion, enhance safety, and improve the overall utility of Madison's transportation network.

5. Supplemental Planning and Demonstration Activities

The Project includes seven [Supplemental Planning and Demonstration Activities](#) based on safety challenges experienced by vulnerable roadway users in Madison. The projects employ low-cost, high-impact strategies to improve safety over a wider geographical area, detailed below:

- **Walking, Biking and Transit Safety** – The project will occur along four school related corridors with significant segments and intersections on the HIN. It consists of road safety audits, community engagement, and testing of safety improvements with temporary materials and evaluation of the tests.
- **Asphalt Art** – The pilot project will be tested on higher volume streets to trial and evaluate the intervention based on [Bloomberg Asphalt Art Safety Study](#).
- **School Street** – This project, based on [8 80 Cities School Street Guidebook](#), would involve collaborating to select a school, conduct community engagement, implement, and evaluate the trial.
- **Ped/Bike Friendly 65+ Drivers** – The project engages with older adults to develop a pilot focused on pedestrian and bicycle friendly 65+ drivers. Funding will be used to hold focus groups, develop project concepts, implement a recommended initiative, and evaluate the project.
- **Safe Mobility & Teen Crash Factors** – This project would develop a public information campaign based on the typical crash factors involving teens, in collaboration with local high school students and the Safe Routes to School program staff. Funding would be used to hold focus groups, develop a campaign, implement a pilot of the campaign, and evaluate the project.
- **HIN Update, Crash Risk Assessment, and Improved Annual Reporting** – The project will update the HIN with the most recent crash data (incorporate new areas of the City recently annexed from the former Town of Madison) incorporate additional traffic safety and crash risk data, refine current performance metrics for the City's Vision Zero annual report, and develop additional reporting mechanisms and templates to improve transparency and public understanding of progress towards the goal.
- **Equitable Engagement Plan** – This project will gather information from focus groups with low income and racially diverse residents during the City's Complete Green Streets Guide development. It will then develop a final report with recommendations and strategies and engagement examples that can be used by various city-wide initiatives.

IV. Project Readiness

The City guarantees that all necessary activities will be completed within five years of grant execution. It has extensive experience delivering projects funded through successful federal grants. The City has a long history of successfully delivering federally funded projects on time. Madison City Council passed a [resolution](#) in June 2023 to support the City's application for the SS4A program. The local matching funds for this Project have already been included in the City's 2023 Adopted Capital Budget and is documented in the resolution.

The City is well-versed with delivering large-scale projects completed through the National Environmental Policy Act (NEPA) review process. All proposed projects and strategies will conform to current USDOT, AASHTO, and WisDOT standards for design and ADA compliant pedestrian infrastructure. All property and right-of-way (ROW) acquisitions, as needed, will be completed in accordance with 49 CFR Part 24 and other Federal regulations by the City. It has an experienced ROW acquisition staff who have been actively involved in the project development process. The City anticipates construction will begin Summer 2024 and be completed by Fall 2027. All major project and strategy milestones as identified in the [Project Schedule](#).