



# US 169 Rural Safety & Mobility Interchange Project

## PROJECT DESCRIPTION

FY 2023/2024 Multimodal Project Discretionary Grant (MPDG) Program



Rendering of Interchange project

**Project Type:** INFRA/Rural Capital Project

**Eligible Project Costs:** \$50,068,000

**FY 2023/2024 MPDG Funds Requested:** \$24,732,000

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**Supporting Information can be found at:**

<https://www.srfconsulting.com/sherburne-county-us-169/>





# US 169 Rural Safety & Mobility Interchange Project

Submitted by Sherburne County

FY 2023/2024 MULTIMODAL PROJECT DISCRETIONARY GRANT (MPDG) PROGRAM

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# Project Description



Sherburne County is requesting \$24,732,000 (48.6 percent of total eligible project cost) of Multimodal Project Discretionary Grant (MPDG) funds through either the INFRA or Rural funding programs for the (US) 169 Rural Safety and Mobility Interchange Project. The project is in Sherburne County, Minnesota,

within the city of Zimmerman (see Figure 1). Extending 966 miles between Oklahoma and Minnesota, US 169 provides a key connection between central Minnesota, the Twin Cities, and the rest of the Great Plains. The project is located outside the boundaries of [2020 urban areas](#) as outlined in the NOFO.

Through Zimmerman, US 169 is a four-lane divided rural roadway with narrow lanes, narrow shoulders, limited turn lanes, limited frontage and backage road systems, and multiple unsafe at-grade intersections. Its intersection with County Road (CR) 4 is the last remaining traffic signal on US 169 along the 75 mile stretch between Rogers and Mille Lacs. The highway is a Principal Arterial and carries between [21,200 – 28,565](#) vehicles per day through the project area. CR 4 carries between 8,600 – 11,400 vehicles per day (2018 counts).

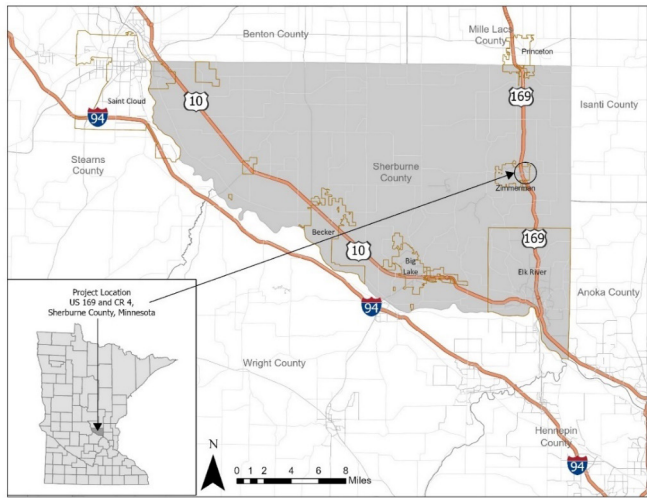


Figure 1 Project Location Map

The Project’s focus is to connect industrial centers, businesses, and people through sound multimodal

transportation planning to provide for the safe and efficient movement of goods, services, and people in and around the City of Zimmerman, Sherburne County, and beyond. The project optimizes connectivity, improves safety, and provides regionwide economic impacts, all of which support the objectives and the Rural Opportunities to Use Transportation for Economic Success (ROUTES) Initiative. The Project directly benefits rural communities in Minnesota by providing safe and reliable access to jobs, services, and other daily necessities.

## CURRENT TRANSPORTATION CHALLENGES

US 169 through the City of Zimmerman has significant congestion and safety issues that present challenges for travelers along the north/south corridor. In addition, the corridor is heavily used by trucks and freight haulers. Without improvements, the US 169 corridor will not meet performance standards by the year 2030. Specific challenges are outlined in this section and in Figure 2.

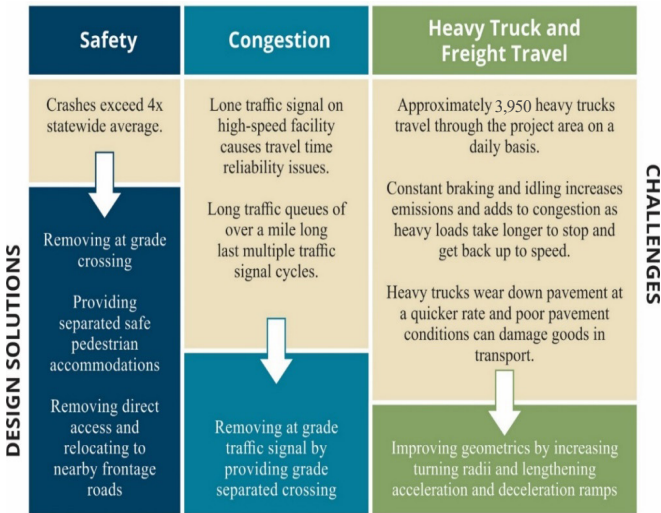


Figure 2 Transportation Challenges and Design Solutions

This intersection is ranked by MnDOT as the **2ND MOST UNSAFE** intersection in central Minnesota.



Figure 3 US 169 and CR 4 Intersection Existing Conditions

### Challenge 1: Safety

Vehicular and pedestrian safety is a major concern for Minnesotans navigating the US 169/CR 4 intersection. According to 5-year crash history data collected between 2015-2019, the US 169/CR 4 intersection is ranked by MnDOT as the 2nd most unsafe intersection in central Minnesota. There were 101 recorded crashes at this intersection, a rate of more than five times the statewide average crash rate and six times the statewide average serious crash rate. Additionally, the area has very limited bicycle and pedestrian facilities.

**5X** the Statewide average crash rate

**6X** the Statewide average serious crash rate

**101** crashes at the intersection in 5 years  
(2015-2019)

 **70% rear end crashes**

 **23% angled or left-turn crashes**

**Solution:** This project will address safety issues by:

- Replacing the signalized US 169 and CR 4 intersection with an interchange, overpass, and frontage road. The improvements will reduce the number and severity of crashes in this area by lessening congestion, removing the need to stop while traveling at high speeds.
- Removing seven at grade access driveways to US 169 and improving the access points at 255th Avenue and 269th Avenue to provide left turn lanes and only allow right turns onto US 169, reducing traffic crossing US 169.
- Installing two roundabouts on CR 4 at the intersection with the US 169 on/off ramps and one at the CR 4 and 2nd Street E intersection, allowing safe and free flow of traffic on and off US 169.
- Constructing a roundabout at the intersection of CR 4 and 2nd Street East in Zimmerman.
- Reconstructing the roadway with wider shoulders and rumble strips, which will help to reduce single vehicle run off the road crashes.
- Building a multimodal trail crossing under US 169 on both sides of CR 4 that provides separated walk/bike facilities with limited pedestrian and vehicle conflict points connecting Zimmerman to east of US 169. These improvements will also separate pedestrians and bicyclists from the 65 mile per hour roadway.

**By 2045, daily traffic is anticipated to increase from 50,000 vehicles to 75,000 vehicles with backups exceeding 1.8 miles.**

### Challenge 2: Congestion

Currently, US 169 through the City of Zimmerman oftentimes sees mile-long backups, especially during AM and PM peak hours. The signal at the intersection between US 169 and CR 4 is the last remaining traffic signal on the 75-mile section of US 169 between the City of Rodgers and Millie Lacs. It creates stop and go traffic that exacerbates congestion issues along the corridor. With forecasted traffic volumes anticipated to increase from 50,000 vehicles per day to 75,000 vehicles per day by 2045, these delays and incidences of crashes are expected to worsen without improvements. **In the no-build scenario, by Year 2045, average queue lengths along US 169 are expected to be 1.8 miles long northbound, and 3.6 miles long for southbound travelers.**

**Solution:** The signalized intersection will be replaced with a grade separated single point urban interchange (SPUI), making US 169 a signal-free corridor, allowing traffic to flow freely through Zimmerman without having to stop at the traffic signal, and eliminating the need for vehicles to queue at the traffic signal during peak travel times.

### Challenge 3: Truck and Freight Travel

US 169 has been identified in numerous local, statewide, regional, and national plans as a key freight corridor. Approximately 3,950 trucks navigate US 169 through Zimmerman daily, accounting for about 14 percent of total traffic. Freight mobility on US 169 is severely impacted by the existing geometrics of the roadway, limiting the ability for trucks to safely navigate the intersection. Poor roadway conditions and congestion caused by the signal often limit their ability to transport goods in a time efficient and high-quality manner and causing delivery drivers to travel at reduced speeds.

**Solution:** Replacing the signalized intersection with an interchange will allow freight to pass through the City of Zimmerman without stopping. The existing problematic turning radii will be eliminated by installing on and off ramps, with appropriate acceleration/deceleration lanes,

which will allow large trucks to easily enter and exit US 169 at the CR 4 intersection. Finally, this section of US 169 will be reconstructed, returning the facilities to new condition, facilitating a smoother driving experience, and reducing damage to cargo.

## DETAILED STATEMENT OF WORK AND DESIGN STATUS

The US 169 Rural Safety and Mobility Interchange Project will improve the rural roadway system by reconstructing the roadway, adding critical safety and capacity improvements that address high crash rates, and reconfiguring intersections to address unsafe conditions (see [Preferred Interchange Design Layout](#)). These improvements will vastly improve safety for all system users, increase freight efficiency, and strengthen rural access to economic opportunities. Preliminary Engineering has been completed and project is now in final design, which includes the following detailed improvements (see Figure 4):

Road Construction and Reconstruction:

- Reconstruct approximately one mile of US 169 and ½ mile of CR 4. Complete the 2nd Street East connection between 255th Avenue and 269th Avenue.

Intersection Improvements: Improve four key intersections and remove at-grade accesses:

- Install two Reduced Conflict Intersections (RCI), also known as J-turns or RCUTs, at the intersections between US 169 and 255th Avenue and 269th Avenue.
- Remove the traffic signal at the US 169 and CR 4 intersection and replace it with a grade separated single point urban interchange (SPUI) with roundabouts at CR4 ramps (see Figure 4).
- Install three roundabouts along CR 4 and 2nd Street E intersection in Zimmerman (see Figure 4).
- Close six at-grade access points onto US 169.

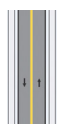
Pedestrian and Bicycle Improvements:

- Incorporate a dedicated multiuse trail on both the north and south sides of CR 4 under US 169.



## US 169 RURAL SAFETY AND MOBILITY INTERCHANGE PROJECT

### PROJECT IMPROVEMENTS AT A GLANCE



Reconstruct approximately 1 mile of US 169 and 1/2 mile of CR 4. Construct 2nd St. E extensions.



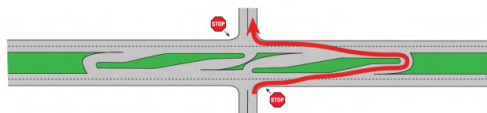
Incorporate a dedicated multiuse trail to connect Zimmerman to the regional trail network and rural areas.



Replace the signalized intersection with a grade separated single point urban interchange (SPUI).



Install 2 new Reduced Conflict Intersections (RCIs), also referred to as J-turns or RCUTs.



Construct 3 new roundabouts along CR 4.



Remove 6 at-grade access points onto US 169.

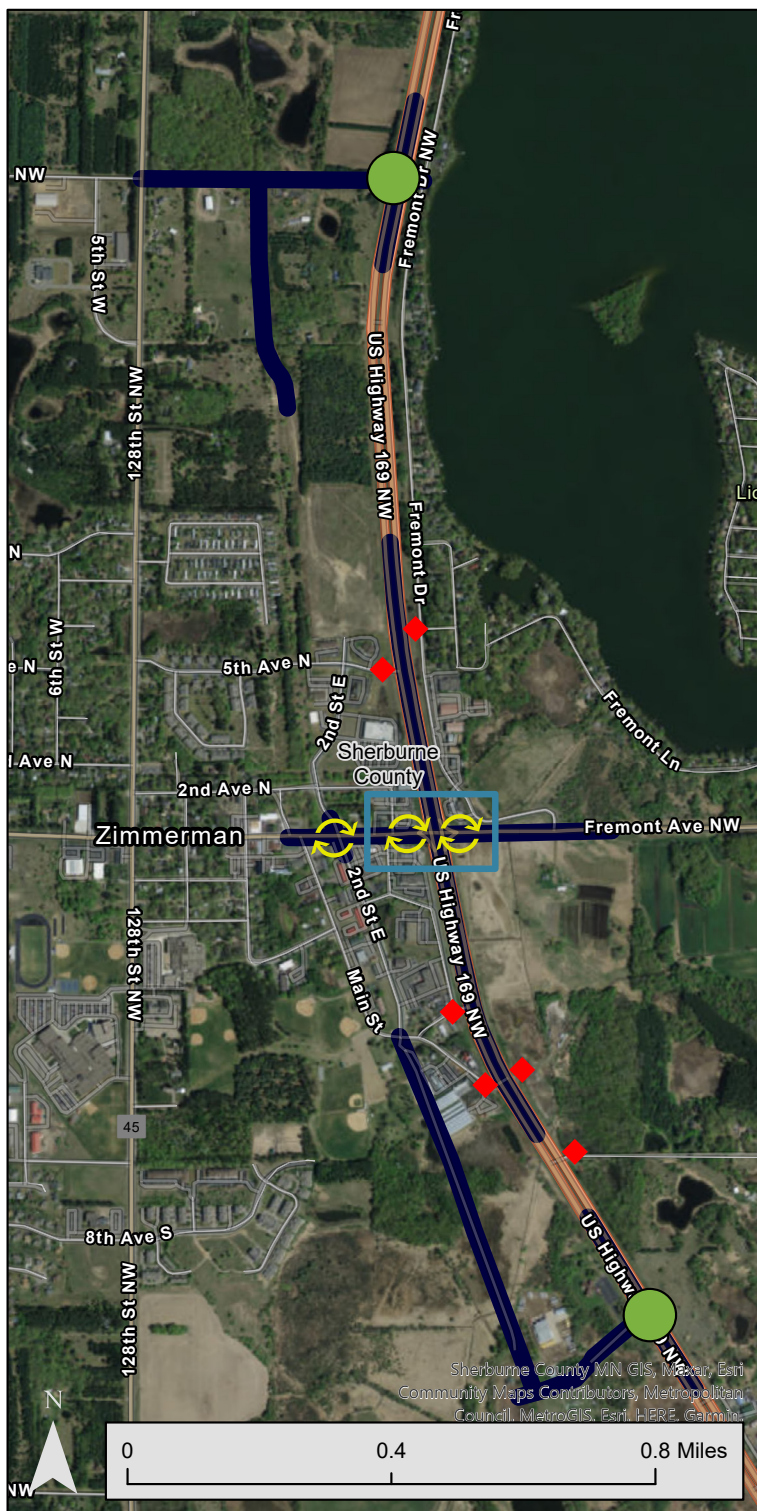


Figure 4 Project Layout

## PROJECT HISTORY

The Project is of local, regional, and statewide importance. This project was submitted to the United States Department of Transportation for funding previously on seven separate occasions:

- RAISE: FY 23, FY 22, FY 21
- MPDG: FY 22 (Rural and INFRA), FY 21 INFRA
- BUILD: FY 20

The US 169 Rural Safety and Mobility Interchange Project also applied for, but was not selected to receive MnDOT Corridors of Commerce funding in 2022. Sherburne County has participated in United States Department of Transportation (USDOT) debriefs and based on feedback received, the design of the Project has been modified to better reflect updated priorities as identified in the Notice of Funding Opportunity.

## Project Location

The Project is located at the intersection of US 169 and CR 4 in the City of Zimmerman in Sherburne County, Minnesota. The project is located approximately 15 miles north of the Minneapolis – St. Paul (Twin Cities) Urbanized Area and is in a census designated rural area. The Project is located entirely within Census Tract 301.01 and is not located in an Area of Persistent Poverty or Historically Disadvantaged Community (see Figure 5).

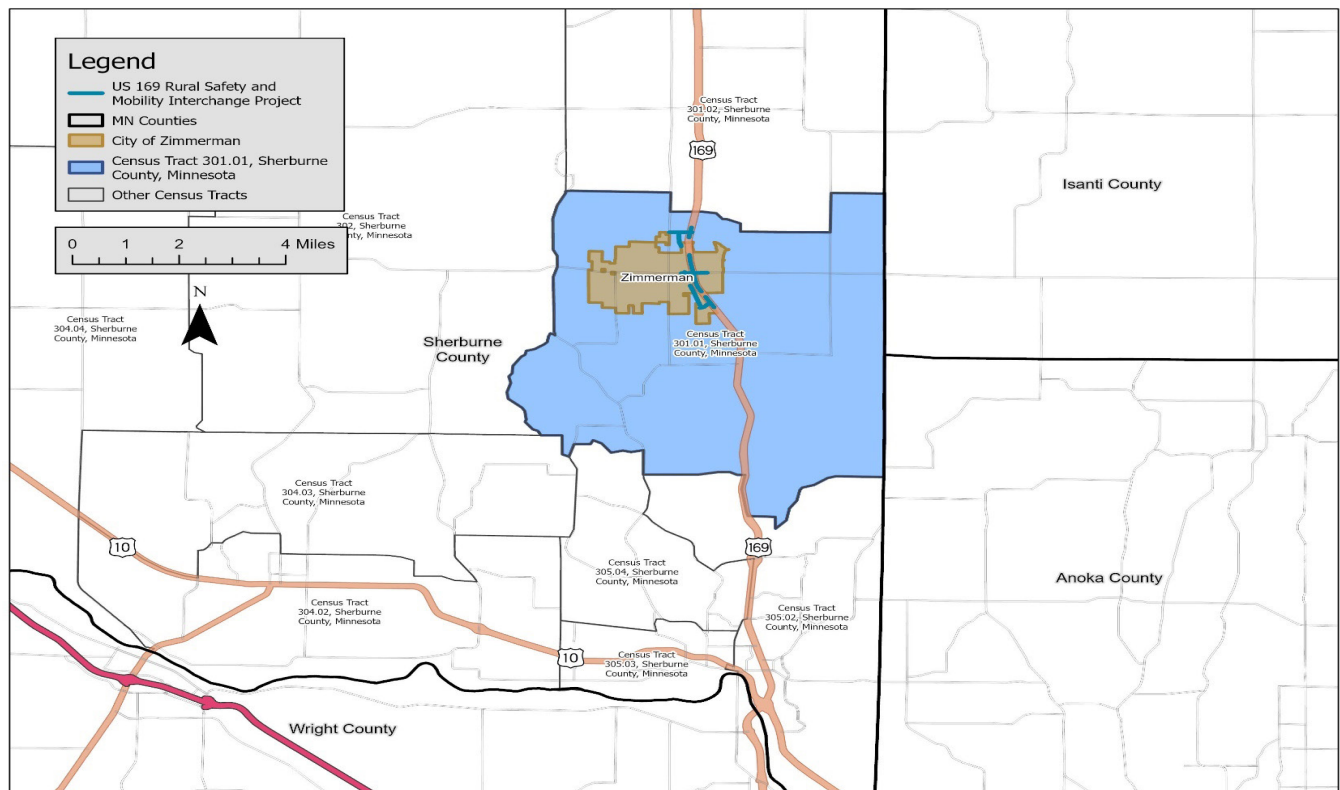


Figure 5 Project Location and Census Tract Map