

# Building Complete Streets to Serve the Red Lake Reservation and Beyond

Red Lake Indian Reservation, Red Lake Minnesota



## PROJECT DESCRIPTION

FY 2024 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program

**Project Name** Building Complete Streets to Serve the Red Lake Reservation and Beyond

**Project Type** Rural Capital Project

**Future Eligible Project Costs** \$25,401,464

**FY 2024 RAISE Funds Requested** \$25,000,000

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**Supporting Information can be found at:**

<https://www.srfconsulting.com/fy24-red-lake-raise/>



# Building Complete Streets to Serve the Red Lake Reservation and Beyond

Red Lake Indian Reservation, Red Lake Minnesota

FY 2024 REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE) PROGRAM

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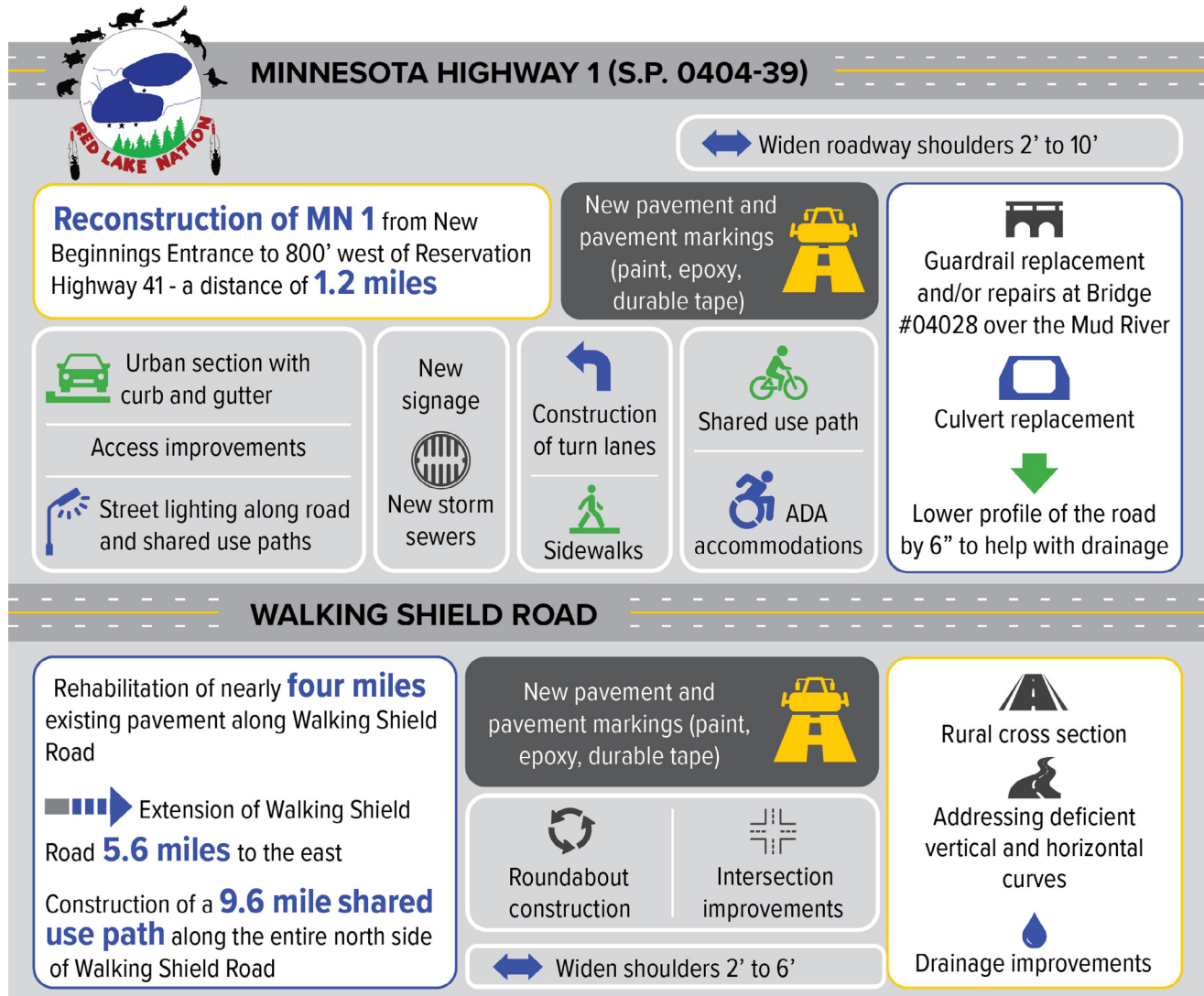
# PROJECT DESCRIPTION



The Red Lake Band of Chippewa Indians (hereafter referred to as the Tribe), in partnership with the Minnesota Department of Transportation (MnDOT) is requesting \$25,000,000 of FY 2024 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant funding for the **reconstruction of Minnesota State Highway 1 (MN 1)** from New Beginnings entrance to 800' west of Reservation Highway 41 (1.2 miles), **rehabilitation** of approximately four miles of existing pavement on **Walking Shield Road**, and **extending existing Walking Shield**

**Road** approximately 5.6 miles to the east to spur much needed housing development on the Reservation. **Both MN 1 and Walking Shield Road are classified as Major Arterials (Class I) in the Bureau of Indian Affairs RIFDS system.** All construction activities are located entirely in Census Tract 27007940001 (9400.01 hereafter) and completely within the boundaries of the Red Lake Reservation. In addition to these activities, the Tribe and MnDOT plan to **build nearly eleven miles of shared use paths** to address transportation safety issues on the Reservation. A full list of improvements is found in the Proposed Improvements At-A-Glance (Figure 1) below, and further described in the Proposed Improvements section of this document.

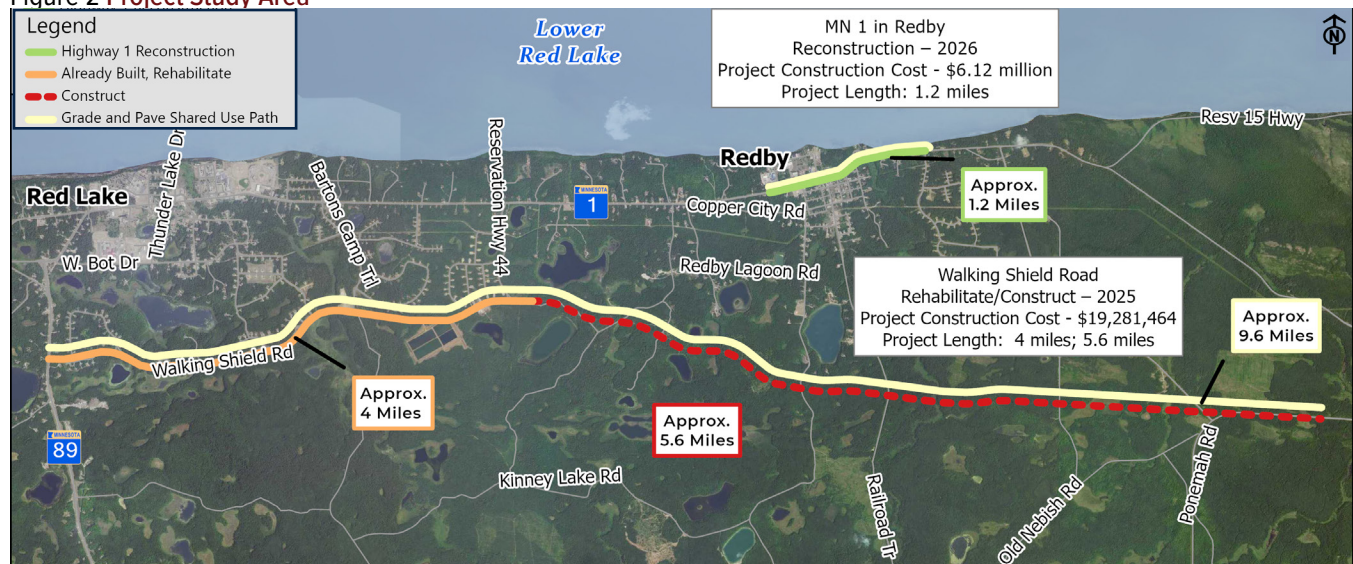
Figure 1 **Proposed Improvements At-A-Glance**





A map of the project study area can be found in Figure 2. The FY 2024 RAISE grant funding will be used exclusively for construction activities, and the requested dollars will fund 98.4 percent of the total construction costs. The two east/west routes, located within Census Tract 9400.01, run parallel, and are located in an Area of Persistent Poverty, a Historically Disadvantaged Community, and on the federally recognized Red Lake Reservation.

**Figure 2 Project Study Area**



## PROJECT LOCATION

The Building Complete Streets to Serve the Red Lake Reservation and Beyond Project is within the limits of the [Red Lake Indian Reservation](#), located in rural Beltrami County in northern Minnesota. A Project Location Map can be found in Figure 3. The majority of households have incomes below the federal poverty line and the unemployment rate on the Reservation lingers at approximately 50 percent. The chronic lack of high-quality condition roads and communications infrastructure are major barriers to economic development and job opportunities on the Reservation.

According to the [Climate and Economic Justice Screening Tool](#) (CJEST) developed by the White House Council on Environmental Quality, the project is located in a Census Tract that has five indicators of disadvantage, including Climate Change, Energy, Health, Transportation, and Workforce Development. Further, because the Red Lake Reservation is a federally recognized tribal reservation in the United States, the census tract automatically qualifies as a historically disadvantaged community.

The Census Tract is also considered by the U.S. Department of Transportation's (USDOT) [Equitable Transportation Community \(ETC\) Explorer Tool](#) to have disadvantage relating to social vulnerability and transportation insecurity.

Nearly 15 percent of households within this tract do not own a vehicle. Residents also experience long driving distances to access adult education (109 minutes), parks (47 minutes), medical facilities (26 minutes), and grocery stores (22 minutes). Nearly 34 percent of households in this tract lack internet access.

**Figure 3 Project Location Map**



## PROPOSED IMPROVEMENTS

The Building Complete Streets to Serve the Red Lake Reservation and Beyond Project will be let in 2025 (Walking Shield Road) and 2026 (MN 1). The two phases will be considered one project with differing letting dates.

### MN 1 Redby Phase

The MN 1 Redby phase will be constructed in 2026. The 1.2-mile segment will include reconstruction of MN 1 from the New Beginnings Entrance to 800' west of Reservation Highway 41. A new roadway surface, with 10' paved shoulders, ADA compliant 8' sidewalks (north side) and 10' shared use paths (south side) will be incorporated.

Additional components of MN 1 include reconstruction of the highway, which runs through the town of Redby, as well as the installation of curb and gutter, storm sewer, and potential turn lanes. The profile of the road will also be lowered 6" to assist with drainage and culvert replacements will be included. ADA compliant pedestrian ramps connecting to an existing sidewalk over the Mud River will be installed and new street lighting in downtown Redby will illuminate the roadway, sidewalk, parking areas and shared use path. Access driveway locations will be evaluated and may be recommended for consolidation/relocation to better align with MnDOT spacing and safety requirements. Further details can be found in the [Project Scoping Report](#).

### Walking Shield Road

The Walking Shield Road segment will begin construction in 2025. Pavement along the existing four-mile segment will be rehabilitated to a new roadway surface and new pavement markings and signage will improve visibility. Walking Shield Road will be extended (new construction) 5.6 miles to the east to provide direct connections to numerous north/south reservation highways, which will spur much needed housing development on the reservation. Improvements will be made to address deficient horizontal curves and improve intersection safety. A new rural cross section, complete with new pavement markings and signage, drainage improvements, intersection improvements, and a roundabout will be built. Construction of nearly ten miles of shared use path along the entire north side of Walking Shield Road will also benefit residents by enhancing mobility for those with insecure access to

transportation options. The lighted ADA-compliant shared use path will provide a smooth, paved surface for pedestrians, bicyclists, and rollers of all ages and abilities, 24 hours a day.

## PROJECT HISTORY

Walking Shield Road was constructed as part of a U.S. infrastructure support program known as the "Walking Shield Program" in which U.S. military construction task forces (Army, Navy, Air Force, and National Guard) built, constructed, and repaired various infrastructure on Indian reservations throughout the United States. The project was the [largest ever undertaken](#) by the Program and served as the model for future efforts. From 2001-2003, [Operation Walking Shield](#) constructed Walking Shield Road on the Red Lake Reservation and provided seven miles of paved roadway, sewer and water infrastructure which led to the creation of a 109-home new housing community which helped mitigate homelessness and overcrowded living conditions on the reservation.

In the 20 years since its construction, sections of Walking Shield Road and nearby MN 1 (built in 1938) have suffered from failing pavement conditions and lack of adequate pedestrian and bicycle facilities to meet the needs of Tribal residents in the surrounding area. Pavement ratings continue to deteriorate, and the Bureau of Indian Affairs (BIA) has provided [documentation](#) that Walking Shield Road needs to be rehabilitated due to its age and current substructure. Bicycle and pedestrian facilities are either disconnected or nonexistent and the roadways lack adequate drainage facilities to manage current and future storm events. Furthermore, MN 1 has suffered from poor access control leading to safety issues along the entire corridor.

On July 13, 2016, Red Lake Tribal Roads staff met with MnDOT to initiate the project. At that time, Red Lake Nation voiced they would like to lead survey, design, and project delivery. Red Lake has [collaborated](#) with MnDOT on several previous projects ([previous example along MN 1](#)) and these agreements between the Tribe and MnDOT are currently being developed.

In 2023, three graduate students and their capstone professor from the University of Minnesota Humphrey School of Planning collaborated with members of the Red Lake Nation and MnDOT staff to help the Tribe plan

for the future of the community and its transportation system. Through this effort and collaboration, [Planning for Redby's Future – Improving the Highway 1 Corridor and Developing a Land Use Inventory](#) was published in May 2023 outlining the need to increase livability throughout Redby's downtown area by addressing safety needs along MN 1. This Project is further supported by the 2015-2019 Long Range Transportation Plan, and the [Red Lake Nation – Land Use and Transportation Plan Update](#).

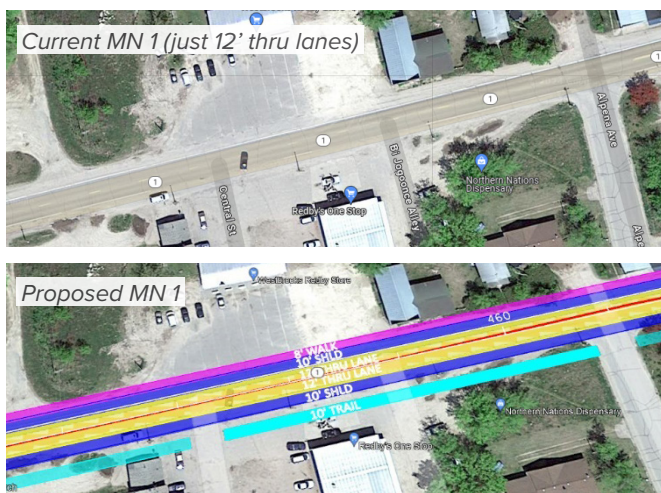
## CURRENT TRANSPORTATION CHALLENGES

Minnesota Highway 1 and Walking Shield Road are not meeting the needs for Red Lake Nation residents and the general public. Little to no multimodal infrastructure exists, pavement is in bad condition, and new roads need to be developed to meet housing demand within the tribal boundary.

### Challenge 1: Need for Complete Streets

Currently the project area does not provide sidewalks, shared use paths, or safe crossing infrastructure. The Project proposes installing an 8-foot sidewalk along nearly one mile on the north side of MN 1 and a 10-foot shared use path stretching approximately 1.2 miles on the south side of MN 1. Additionally, paved 10-foot shoulders on both sides of MN 1 will provide additional room for pedestrians, bicyclists, and on-street parking.

A new shared use path is proposed on the north side of Walking Shield Road extending across the rehabilitated section of the road (approximately four miles), and as part of the new construction of Walking Shield Road (approximately 5.6 miles).



### Challenge 2: Deteriorating Pavement Condition

Each of the roadways being addressed by this project are facing deteriorating pavement conditions, creating significant mobility and safety concerns. Referencing the Bureau of Indian Affairs Pavement Condition Index (PCI) ratings for tribal roads, the current (2022) PCI is 47.3 along Walking Shield Road, which corresponds with a “poor” pavement rating and will be approaching a “serious” rating by 2025. Additionally, MN 1 has a pavement quality index of 2.7 (2023), indicating “fair” condition, which if not improved will reach “poor” condition in the next few years.

Current pavement conditions ratings along Walking Shield Road and MN 1 indicate a new roadway surface is needed. MN 1 was constructed in 1938 and carries 4,050 vehicles per day including 426 heavy commercial vehicles per day (2022 count). In the roadway's 85-year history, the road endured [several treatments](#) to maintain an adequate pavement condition, however at this time, full reconstruction is necessary to avoid the need for increasingly costly maintenance activities.

### Challenge 3: Need for New Roads to Expand Housing and Economic Opportunities

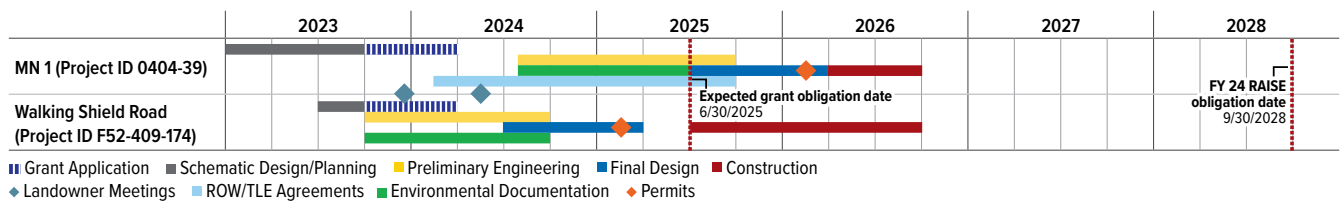
The Red Lake Band of Chippewa struggles with one of the [most dire housing situations in the United States](#). In 2022, there were at least 117 families without homes, 140 households that lack adequate kitchen and/or bathroom facilities, and 235 households that experience a severe housing cost burden. According to Red Lake Nation's Land Use and Transportation Plan Update, the population on the Reservation is projected to keep increasing, and the median age on the Reservation is 23 years old with 43 percent of the population under the age of 18. Building the necessary transportation facilities will help reduce over occupancy of units with more than one household and lessen the lengthy waitlist of those tribal members seeking affordable housing.

With this expanding population, new roads (including the eastern side of Walking Shield Road) need to be constructed to support and facilitate additional housing development.

### Challenge 4: Alternate Routes are Limited

Minnesota Highway 1 is the only east-west State Highway in Beltrami County (population 46,228). Walking Shield





Road currently serves as the primary detour route for MN 1 and serves residents as a key connection into Redby on the south side of the Red Lake Reservation. Any incidents that occur on MN 1 which require traffic to be rerouted means drivers must follow a detour consisting of Highway 89, Highway 32, and Reservation Highway 18, which adds approximately [11 miles to each trip](#). Improving and maintaining the roadway condition of MN 1 is vital to the area, its residents, and its businesses on the Reservation.



## Challenge 5: Better Access Control and Roadway Geometrics

Currently, local road spacing and access driveways present a safety hazard for users on MN 1. New connections are proposed as part of the project to provide adequate spacing, better geometry, and consolidate or relocate driveways that are deemed unsafe.

Numerous locations along Walking Shield Road and MN 1 experience high crash rates including the occurrence of numerous serious injury and fatal crashes. The Project will improve these locations and intersections for all users and all modes of transportation and in some cases provide a new intersection footprint, warning signage, and new pavement markings.

## DETAILED STATEMENT OF WORK/DESIGN STATUS

The Project is pursuing a phased obligation, with an expected obligation date of June 30, 2025 for Walking

Shield Road. The Project is in the preliminary engineering phase. As mentioned previously, the Building Complete Streets to Serve the Red Lake Reservation and Beyond Project is proposed to be let in 2025 (Walking Shield Road) and 2026 (MN 1). The two phases will be considered one project with differing letting dates.

## Walking Shield Road

In July 2023, Red Lake Band of Chippewa Indians [obtained conceptual intersection schematic renderings](#) at four locations along Walking Shield Road and created an alignment file for the new road segment. In November 2023, Red Lake Tribal Council [hired a consultant to provide preliminary, final design, and environmental documents](#) for Walking Shield Road (Project ID #52-409-174). The Project is currently in the preliminary engineering design phase and per the project schedule, it is expected that 30 percent design and a final environmental assessment will be completed in the third quarter of 2024 and final design completed in early 2025.

## MN 1

In December 2023, schematic design was completed for MN 1. Preliminary Engineering will begin in the third quarter of 2024 and be completed in late 2025. Final design will occur beginning the third quarter of 2025 and construction is slated to begin in the spring of 2026. Funds for the project will be obligated well before the statutory deadline of September 30, 2028 and easily meet the RAISE drawdown date of September 30, 2023.

Cost estimates for the project are based on 10 percent engineering design. Final project plans and specifications will be prepared in accordance with MnDOT Design Manuals and Standards. Final design engineering will include preparation of 60 percent, 90 percent, and 100 percent construction plans, cost estimates, signing, and lighting designs, traffic management plans, right-of-way acquisition plans, and risk management plans, among others.