# East Grand Forks-Grand Forks Regional Bridge Crossing(s)

Planning for Improved Mobility, Equity, Sustainability, and Economic Competitiveness

# **PROJECT DESCRIPTION**

FY 2025 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program



**Project Name:** East Grand Forks-Grand Forks Regional Bridge Crossing(s) Planning for Improved Mobility, Equity, Sustainability, and Economic Competitiveness

Project Type: Rural Planning Project

Future Eligible Project Costs: \$7.5 million

2025 RAISE Funds Requested: \$7.5 million

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Supporting Information can be found at:

https://www.srfconsulting.com/grand\_forks-east\_grand\_forks/





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Submitted by City of East Grand Forks, MN

FY 2025 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program

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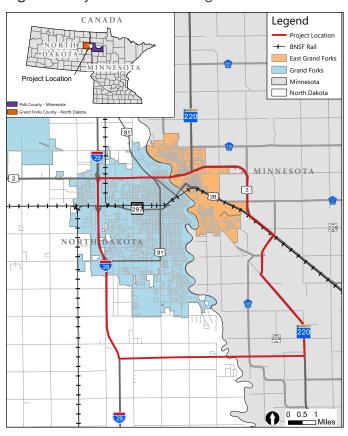
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## **PROJECT DESCRIPTION**

The City of East Grand Forks, Minnesota in partnership with the City of Grand Forks, North Dakota, Polk County, Minnesota, and Grand Forks County, North Dakota, is submitting this 2025 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program request for \$7.5 million in planning funds. The requested funds will be used to advance planning activities for new bridge crossing(s) over the Red River in the <u>Grand Forks-East</u> <u>Grand Forks Metropolitan Planning Area</u> and will continue the successful momentum of coordinated planning efforts preceding this application.



#### Figure 1 Project Location in Regional Context

The East Grand Forks-Grand Forks Regional Bridge Crossing(s) Planning for Improved Mobility, Equity, Sustainability, and Economic Competitiveness Project (herein known as the Project) will identify and evaluate potential transportation corridor that includes bridge crossing location(s) across the Red River of the North, which demarcates the MN-ND state line. The Project limits (herein known as the Project Area) are defined as follows:

- North Limit: US Highway 2 (US 2)
- East Limit: MN State Highway 220 (MN 220)

- South Limit: half mile south of Grand Forks County Highway 6 / 220 Street SW
- West Limit: Interstate 29 (I-29)

Planning efforts will start by conducting a Planning and Environmental Linkages (PEL) study conforming to all Minnesota Department of Transportation (MnDOT), North Dakota Department of Transportation (NDDOT), Minnesota Department of Natural Resources (MnDNR), North Dakota Department of Water Resources (NDDWR), U.S. Department of Transportation (USDOT), U.S. Federal Highway Administration (FHWA), U.S. Coast Guard (USCG), and U.S. Army Corps of Engineers (USACE) requirements. The results of the PEL Study will provide a transparent, collaborative, and orderly transfer of environmental and preliminary design engineering data directly into a National Environmental Policy Act (NEPA) environmental document.

Activities to be included in these two processes are: data collection, traffic forecasting and modeling, safety analysis, public engagement activities, alternatives development and evaluation, agency coordination, concept and layout development, PEL documentation, preliminary bridge plans, geotechnical analysis, hydraulics and river modeling, visual quality assessment, traffic management planning, environmental documentation, benefit-cost analysis, and planning for future related activities.

These planning activities will result in a preferred alternative that supports USDOT's strategic goals of improving safety, economic strength and global competitiveness, equity, and climate and sustainability, and aligns with the priorities of workforce development, job quality, and wealth creation. The construction of the bridge(s) and associated rightof-way acquisition originating from these collaborative, multijurisdictional planning activities are hereafter referred to as the Capital Project.

As a regional center for transportation, employment, education, medical care, and economic activity, the Project Area is served by a range of high-capacity roadways, including I-29, US 2, US Highway 81 (US 81), and MN 220. The confluence of these highways forms a critical regional transportation hub, connecting eastern ND and western MN to the nationwide multimodal and intermodal (rail, air, maritime, and pipeline) transportation systems, as well as to destinations in Canada, located only 93 miles to the north on I-29. These roadways experience the highest daily regional traffic volumes and serve as to regional commuting corridors. The Project Area is home to several

critical roadways along the Interstate and National Highway System (NHS) Principal Arterial system, including I-29, US Highway 2 (Gateway Drive), US 81 Business (Washington Street/32nd Avenue) and State Highway 29 (Demers Avenue). Both US 2 and I-29 service more than 500 daily heavy commercial truck trips. East Grand Forks, MN is presently connected to Grand Forks, ND via three bridges, of which one is weight-restricted (Table 1). These conditions lead to severe funneling and congestion, where large volumes of commuter and freight traffic are forced to utilize the two acute points in the regional system.

Connection	Average Annual Daily Traffic	Heavy Commercial Vehicle Average Annual Daily Traffic
Kennedy Memorial Bridge (US 2)	15,475 (2021)	1,299 (2022)
Sorlie Memorial Bridge (Demers Avenue)	13,400 (2019)	478 (2022)
First Avenue Bridge (weight-restricted two-lane)	6,660 (2021)	0

#### Table 1 Existing Bridge Crossings between East Grand Forks and Grand Forks

The Grand Forks-East Grand Forks Metropolitan Planning Area is home to a thriving and diverse range of employment sectors, including numerous freight-dependent businesses such as <u>agribusiness</u> (over 5,000 regional jobs), and <u>manufacturing (over 4,500 regional jobs</u>). Due to the limited number of cross-river connections, heavy commercial vehicles must cross the river on one of two bridges: either the Kennedy Memorial Bridge (US 2) or the Sorlie Memorial Bridge (Demers Avenue). Both these bridges serve as primary multimodal commuter routes. The following transportation challenges have been identified in the region:

### CURRENT TRANSPORTATION CHALLENGES

### Challenge #1: Safety

Significant safety issues for pedestrians/bicyclists and vehicles due to heavy traffic volumes coupled with roadway design that does not account for modal equity.

As the local and regional populations and economies continue to grow, the existing river crossings will service increasing multimodal traffic. These increasing volumes will worsen the documented safety issues at the existing river crossings and outlying street networks on either side. Areas directly around and adjacent to the existing bridge approaches have been the site of numerous crashes involving bicyclists and pedestrians. Within the Project Area, the intersection of US 2 and North Washington Street services traffic directly west of the Kennedy Memorial Bridge. This intersection has been identified by the Grand Forks-East Grand Forks MPO as a Top Crash Frequency Intersection. Similarly, the intersection of Demers Avenue and Fourth Street NW services traffic directly east of the Sorlie Memorial Bridge and has been identified as another Top Crash Frequency Intersection.

Within a five-year period (2018-2022), there were 16 fatal crashes and 62 serious injury crashes documented in the Project Area.

**16** fatal crashes



589 minor injury crashes **5,195** property damage only

Time range 2018-2022

The primary need for the Project is safety due to the challenges caused because of coupling of high volumes of freight trucks and commuter traffic. All designs developed as a result of the Project will include a Complete Streets Approach and pedestrian and bicyclist facilities utilizing <u>Proven Safety Countermeasure</u> identified by the U.S. Federal Highway Administration.

#### Challenge #2: Mobility & Community Connectivity and Quality of Life

The Project Area is a bottleneck for local and regional traffic, experiencing frequent disruption in travel time reliability.

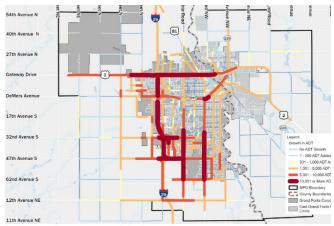


Figure 2 Forecasted Growth in Traffic Volumes, 2050

The existing system of river crossings in the Grand Forks-East Grand Forks Metropolitan Area is becoming increasingly overwhelmed by escalating population growth and resulting traffic volumes (Figure 2). The populations of Grand Forks and East Grand Forks are projected to increase by <u>59 percent</u> and <u>22 percent</u> respectively, between 2020 and 2050. This rapid growth will lead to exacerbation of transportation challenges due to congestion and will intensify quality of life, environmental, and safety issues at the river crossing corridors between Grand Forks and East Grand Forks.

Due to inadequate cross-river connections, the high amount of daily traffic will back up during key periods, leading to delays, congestion, and queuing. This congestion would lead to drivers exhibiting risk taking behaviors, including severe accelerations and decelerations. Additionally, the high volumes of commuter, freight, and other traveler volumes through two commercial districts and the neighboring residential zones, retail destinations, and freight destinations will contribute to deteriorating mobility and connectivity conditions. It will also lead to increased barriers in bike and pedestrian mobility and accessibility. Issues will include blocking pedestrian access due to the presence of queued vehicles parked across crosswalks and unpredictable driver behaviors, among other challenges. These issues will create significant challenges for pedestrians with disabilities.

With the projected increase in population and resulting traffic, the above-listed issues are going to significantly increase. The Grand Forks-East Grand Forks MPO's 2050 Street and Highway Plan Update model predicts the 2045 Level of Service (LOS) on the Kennedy Memorial Bridge as LOS E (unstable traffic flow, operating at capacity), and on

the Sorlie Memorial Bridge as LOS F (total jammed traffic or gridlock), if no additional river crossing(s) are planned.

The 2050 Street and Highway Plan documented an urgent need for improvement to the cross-river connection network to avoid this gridlock and illustrates greatly improving the LOS in the region by adding additional crossing(s).

# Challenge #3: Environmental Resources and Sustainability

Figure 3 Cole Creek Bridge Flooding, Grand Forks, ND



The Red River Valley is a nearly featureless plain with poorly drained silty and clayey soils that are highly prone to geologically induced damage. In addition, the region experiences major risk of flooding due to rapid melting of snow in spring, which in recent years has reached record levels leading to several major floods and related spring flood emergencies. Existing roads and bridges are not designed to repeatedly withstand the short-term and long-term impacts of such occurrences, resulting in negative impacts and risks for communities in the region. The infrastructure improvements planned through the Project will conform to current state and federal guidance and best practices, creating a network of resilient infrastructure better equipped for disaster preparedness. The river crossing(s) will be designed with specially engineered approach spans and substructure that flex and allow for movement in the underlying soils while maintaining a stable deck and driving surface.

The benefits due to the construction of additional river crossing(s) will resolve transportation challenges that have persisted in the Grand Forks – East Grand Forks Metropolitan Area for decades and will contribute towards the vital growth of the region's economy.

### PROPOSED OUTCOMES

The challenges noted above have presented an opportunity to bring equity, efficiency, and modernization to this growing regional transportation and economic hub. The Project will customize design solutions to the needs identified during extensive public outreach, conducted over the course of previous engagement and the forthcoming PEL and environmental documentation processes, and will further balance it with the cost-effectiveness of the proposed improvements. The proposed outcomes include:

### Planning and Environmental Linkages (PEL) Study

The Project will fund a thorough PEL study, a collaborative and integrated approach to decision-making that:

- **1.** considers environmental, community, and economic goals early in the process, and
- **2.** uses the information, analysis, and products developed during planning to inform the environmental (NEPA) review process.

The outcomes of the PEL study will be adopted or incorporated directly into the subsequent NEPA process. The PEL study will involve project management, data collection, public engagement, traffic studies, purpose and needs statements, floodplain evaluation, screening of preliminary alternatives, PEL documentation, and planning for environmental documentation (NEPA).

# Preliminary Engineering Design & Environmental Documentation

After a detailed PEL process, the Project will initiate detailed preliminary engineering design and environmental documentation anticipated to follow NEPA procedures used by both MnDOT and NDDOT. The purpose of this phase will be to conduct early project-level planning and develop an overall design concept of proposed solutions. The Project will involve project management, preliminary roadway and bridge plans, geotechnical and hydraulic/river analysis, traffic management plans, agency coordination to identify and procure required approvals and prepare the project for environmental permitting during final design, public engagement consistent with similar multi-jurisdictional projects, NEPA evaluation for preferred alternatives, and identification of any right-of-way acquisitions that may be necessary for construction. The Project will aim to reduce future risk through robust technical analysis and stakeholder engagement.

# STATEMENT OF WORK/DESIGN STATUS

Upon award of a RAISE grant, the City and project partners will be able to procure the necessary planning, environmental review, and design services to develop a coordinated improvements schedule for the project. An engagement schedule will also be determined with notice provided to affected parties and adjacent landowners about the planning project and how they may participate in the process. The Project's primary goals are to improve safety and mobility in the region while seeking to advance community connectivity, improve quality of life and environmental resiliency and sustainability for rural and traditionally disadvantaged communities along the North Dakota-Minnesota border. The cost estimate developed for the Project is a planning level estimate and can be found here.

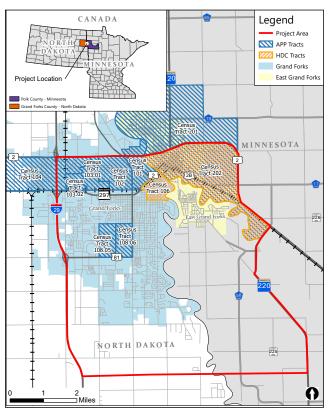
### **PROJECT HISTORY**

Safe and convenient access across the Red River continues to be a high priority for the Grand Forks-East Grand Forks region. Prior studies and plans have identified the need for improved cross-river connection(s) between Grand Forks and East Grand Forks to reduce congestion on the existing bridges and the surrounding roadway network. Recent efforts led by project partners to study the area are described below:

- Merrifield Road I-29 Interchange Justification Report (2002) documented the high number of freight users in the Project Area. These include high volumes of trucks, with some carrying farm chemicals, using the local road network and passing through developed areas, creating safety concerns.
- Merrifield Road Red River Bridge Feasibility Study (2005) evaluated the feasibility of two alignments for a new Red River crossing at Merrifield Road. A roadway elevation of 840 feet was determined to be most feasible.
- 2045 Metropolitan Transportation Plan (2019) identified needs for two new bridges: an intracity bridge for travel between Grand Forks and East Grand Forks and an intraregional bridge for regional trips.
- Hydraulic Analysis of South End Red River Bridge Study (2020) identified two crossing locations for further analysis: Elks Drive and 32nd Avenue. This study also demonstrated that a crossing at 47th Avenue is not feasible because of the need for complex flood mitigation.
- Future Bridge Traffic Impact Study (2022) developed and evaluated alternatives for a new bridge to provide improved mobility and safety and support economic development in the region, within feasible locations.

PEL Scoping Study The PEL Scoping Study has initiated the scope review with FHWA to achieve Concurrence Point 1. Upon receipt of Concurrence Point 1, the study will develop the fee structure and begin the Environmental review process.

### **PROJECT LOCATION**



#### Figure 4 Project Disadvantaged Census Tracts

The Project is in the Red River Valley region along the Minnesota-North Dakota border, often called Greater Grand Forks. The Red River bisects the <u>Grand Forks ND-MN</u> <u>Urbanized Area</u>, which serves as a thriving regional engine of employment, innovation, and economic growth. The Minnesota portion of the Project is in Minnesota's seventh congressional district in Polk County. The North Dakota portion is in North Dakota's single at-large congressional district, in Grand Forks County. Grand Forks, with a population of 59,166, is more than five times larger than East Grand Forks, with a population of 9,176 (2020 census).

The geospatial location of the Project is approximately 47.92882°, -97.03324°.

### Polk County, Minnesota

According to the Minnesota Department of Employment and Economic Development (DEED) <u>county profile</u>, Polk County has a higher unemployment rate and lower labor force participate rate than the rest of Minnesota. Polk County also has a lower median household income and a higher percentage of households with incomes below \$50,000 than the rest of the state. Overall, Polk County has the 43rd highest median household income of the 87 counties in Minnesota. In addition to new jobs being created, there will be a much larger number of exit openings.

### Grand Forks County, North Dakota

According to its <u>County Area Profile</u>, Grand Forks County's 2023 resident population was 72,708, a one-year numeric change of +0.4 percent. Grand Forks County has a higher rate of population below the poverty level than the rest of North Dakota (14.2 percent to 10.8 percent), and a higher job turnover rate than the rest of the state. The County has a lower per capita personal income than North Dakota (\$63,280 to \$72,041) and a lower median household income (\$64,698 to \$73,959).

### DISADVANTAGED COMMUNITIES

According to the RAISE grant mapping tool, the Project is located outside of an urbanized area of population 200,000, and therefore, is designated as a rural project. The Project sits across 23 census tracts (2020), of which nine tracts (27119020100, 27119020200, 38035010100, 38035010200, 38035010301, 38035010302, 38035010400, 38035010805, 38035010806) are identified as Areas of Persistent Poverty (APP) while two tracts (27119020200 and 38035010600) are identified as Historically Disadvantaged Communities (HDC) by the Climate & Economic Justice Screening Tool (CEJST).The CEJST analysis indicates that these communities meet thresholds to be affected by legacy pollution and/or water and wastewater pollution AND Low Income communities (people in households where income is less than or equal to twice the federal poverty level). Additionally, census tracts 38035010100, 38035010200, and 38035010600 are also designated as Qualified Opportunity Zone.

With the advance of planning activities, specific areas to invest resources to achieve equitable outcomes will become further evident. Once these areas are known, project planners will invest resources appropriately.