

---

## **2.0 Purpose and Need for Proposed Action**

### **2.1 Description of Project**

#### **2.1.1 Project Location**

The Highway 23/71 Improvement Project is located in south-central Minnesota approximately 100 miles west of Minneapolis/St. Paul. The project corridor traverses north-south through the central portion of Kandiyohi County, Minnesota (see Figure 1). The project limits extend along the common alignment of Highway 23 and Highway 71 for a distance of approximately 3.5 miles (see Figure 2).

#### **2.1.2 Project Setting**

Highway 23 is a “medium priority” Mn/DOT Interregional Corridor (IRC) that diagonally traverses from the southwest to the northeast part of the state. The Minnesota Department of Transportation (Mn/DOT) identified a system of corridors with priority status as high or medium, depending on mobility targets established for these corridors and based on the type of regional trade centers linked by these corridors. “Medium priority” indicates the corridor was given a performance target of 55+ miles per hour as the desired average future (2025) travel speed for each measurable growth segment comprising the roadway corridor. Growth segments were divided for IRCs between urban areas, small rural centers, planned growth areas, and rural areas. The goal of the IRC system is to enhance the economic vitality of the state by providing safe, timely, and efficient movement of goods and people.

Highway 71 traverses north-south from the Minnesota-Iowa border (south of Jackson, Minnesota) to the Minnesota-Canada border crossing at International Falls, Minnesota. Highway 71 has been classified as a “regional corridor” that provides links between IRCs, such as I-94 at Sauk Centre and Highway 212 near Olivia.

Within the project area, Highway 23 shares a common alignment with Highway 71 for approximately 3.5 miles in Dovre Township, Kandiyohi County, Minnesota. This rural, four-lane divided section of highway is nestled between several lakes, notably Eagle, Point, Skataas, Swan, and Willmar Lakes. The lakes are ringed with resort and year-round residential development. Low density commercial development is generally located on the west side of the highway, and large parcels of open developable properties lie on both sides of Highway 23/71.

#### **2.1.3 Project Background**

The need to preserve safety and mobility through access management on the Highway 23/71 segment has been considered by Mn/DOT since the planning and construction of the Willmar Bypass. As segments of the larger bypass project have been completed, including the four-lane segment to the divergence of the two highways at the northern project limits, points of direct access have remained along the corridor for area businesses and local road connections. The goal of access control on Highway 23/71 became more desirable in 2000 when Mn/DOT identified Highway 23 as an IRC with priority status and long-term planning requirements and desired performance standards.

In September 2004, Mn/DOT completed a Highway 23 and Highway 71 Access and Interchange Study. The primary purposes of the study were to assess and describe current access conditions, develop roadway improvement concepts utilizing access management strategies, and present recommendations for short- and long-term future access conditions along the 3.5-mile segment of Highway 23/71. The transportation improvements considered were consistent with the IRC philosophy established for the corridor.

---

The recommended access plan from the Highway 23 and Highway 71 Access and Interchange Study identified immediate needs to reduce further degraded access and safety issues. The short-term plan includes projects that Mn/DOT and its local government study partners can implement in the near future to temporarily manage the effects of land use changes on the Highway 23/71 corridor and surrounding roadway network until projects included in the long-term plan can be funded and constructed. These projects include minor frontage road/backage road construction, temporary traffic signalization, and highway median closures. The long-term plan for the Highway 23/71 corridor provides for a freeway condition, which would include grade-separated intersections, construction of local city/township/county road connections and frontage road/backage roads, and uncontrolled intersection access closures.

In January 2007 the Scoping Decision Document (SDD) for this project was published. This document explains the alternatives to be evaluated in the EIS and describes potential impacts and issues that were identified at that level in the project development process.

The public participation process occurring during the development of the Highway 23/71 Scoping Document consisted of a series of committee meetings, small group meetings, and an open house. The Project Advisory Committee (PAC) was formed in spring 2006 to review the project development process, issues, and technical findings and to represent the concerns of various interest groups. The PAC is comprised of public and private business interests and citizen representatives, including both local and regional perspectives.

A public open house meeting was held on July 17, 2006 as part of the formal Scoping Document/Draft Scoping Decision Document (SD/DSDD) review process. This meeting allowed the public an opportunity to review and comment on the initial range of alternatives prior to the start of the EIS process.

Participating Agencies were also involved in the examination of project alternatives during 2006 and 2007. Participating Agency involvement led to the request for study of a no-access freeway alternative. This alternative would have resulted in no access along the common section of Highway 23/71. This alternative was further considered following the SD/DSDD comment period, but was later dismissed due to anticipated economic impacts to the Highway 23/71 commercial corridor.

A second public open house was held on June 27, 2007. The purpose of the open house was to display EIS alternative layouts under consideration, engage members of the public in conversations concerning potential issues and concerns, and receive comments.

## **2.2 Responsible Governmental Units**

Mn/DOT is the Responsible Governmental Unit for the development of and the environmental documentation for the Highway 23/71 Project. Mn/DOT is managing the project with the Federal Highway Administration (FHWA) as a Joint Lead Agency. The contact persons for the project are:

**Mn/DOT**  
Mn/DOT District 8  
Lowell Flaten  
2505 Transportation Road  
Willmar, MN 56201  
320.214.6367  
[lowell.flaten@dot.state.mn.us](mailto:lowell.flaten@dot.state.mn.us)

**FHWA**  
Cheryl Martin  
Galtier Plaza  
380 Jackson Street, Suite 500  
St. Paul, MN 55101-2904  
651.291.6120  
[Cheryl.Martin@fhwa.dot.gov](mailto:Cheryl.Martin@fhwa.dot.gov)

## 2.3 Funding and Schedule

### 2.3.1 Funding

It is anticipated that federal funds will be the primary source of funding (80 percent) with a 20 percent state match. The segment of Highway 23/71 from a relocated County Road 90 to County Highway 25 will be constructed as Phase 1. Currently, Phase 1 is not programmed, and the remainder of the project is not in Mn/DOT's 10-year plan.

State Project Number	Construction Date	Funding Program	Funding Source	Program Estimate <sup>1</sup>
3412-70	Phase 1: start 2015 or later	Major Construction	Federal (80 percent) and State (20 percent)	Phase 1: \$9 million

<sup>1</sup>Cost estimates include right-of-way, relocation and construction costs. Estimates are in 2007 dollars.

### 2.3.2 Schedule for Environmental Review

Completion Date (Actual or Anticipated)	Task/Activity
June 2006	Release of SD/DSDD for public comment; begin 30-day comment period
July 2006	Public Scoping Meeting
January 2007	Final Scoping Decision Document
May 15, 2006	Federal Notice of Intent to prepare an EIS
February 2008	Distribute Draft EIS for agency/public comment; start of Draft EIS comment period
February 2008	Notice of Availability
March 2008	Public Hearing on Draft EIS
May 2008	Identification of Preferred Alternative by Mn/DOT and FHWA
July 2008	Distribute Final EIS
September 2008	Mn/DOT Adequacy Determination
October 2008	FHWA Record of Decision
November 2008	Project Study Report Approved for Phase 1
2009 - 2015 and beyond	Final Design and Right Of Way Acquisition
2015 and beyond	Construction of Phase 1

## 2.4 Purpose of the Draft Environmental Impact Statement

The National Environmental Policy Act (NEPA) of 1969 requires that social, economic, and environmental considerations be included in the planning of projects that receive federal funding. The proposed reconstruction of Highway 23/71 is considered a Federal Class I Action because of its potential for significant impacts on the natural and physical environment. The EIS is a full disclosure document that discusses the environmental impacts of a proposed Class I Action. The Draft EIS discusses all reasonable alternatives to the proposed action and summarizes the results of all studies, reviews, consultations, and coordination conducted on the environmental impacts of the action for all reasonable alternatives. The Final EIS will identify the preferred alternative and describe the environmental mitigation measures and commitments.

---

This Draft EIS has been prepared as part of the federal NEPA process and state environmental review process to fulfill requirements of both 42 USC 4321 et Seq. and Minnesota Rules Chapter 4410.2100.

## **2.5 Purpose and Need for Proposed Action**

The purpose of this process is to identify an environmentally and socially sensitive preferred alternative for a transportation system improvement that is consistent with meeting the identified needs presented in the following sections.

The purpose of the Highway 23/71 project is to improve safety as forecast traffic growth occurs, maintain performance and preserve mobility to enhance regional economic growth, and to serve future land uses along the highway corridor. Access management improvements will address growing safety concerns with vehicles entering/exiting the highway, preserve the state interregional mobility goals, and to accommodate new commercial and residential growth along the Highway 23/71 Corridor.

Each of the project goals and objectives are listed as follows.

### **Goal: Improve Safety**

#### Objectives:

1. Reduce the amount of access to acceptable standards (up to three points of access).  
(As a Category 2A-F {Medium Priority IRC}, the Highway 23/71 Corridor exceeds Mn/DOT's access standards by a factor of three. Category 2A-F applies to urban, suburban, and rural areas and principal arterial roadways with a typical posted speed limit between 55 and 65 mph.)
2. Address school traffic crashes and crash potential at CR 90.
3. Reduce the crash rate in general and crash severity rates in particular.

### **Goal: Maintain Performance**

#### Objectives:

1. Preserve the Corridor's speed, efficient movement of goods, and regional connectivity; now and in the future.
2. Address signal risk in the Corridor, especially at CR 90 and CSAH 25 intersections.
3. The AADT on Highway 23/71 is the highest in Kandiyohi County and in Mn/DOT's District 8. Protect the mobility goals that projected traffic growth on this segment will begin to erode without access management improvements.

### **Goal: Address Future Land Use**

#### Objectives:

1. Address the needs of Highway 23/71 with a projected 35 percent increase in population growth of the North Willmar Lakes area in Dovre Township.
2. Address the needs of Highway 23/71 with a growing and redeveloping commercial area along the Corridor, especially if annexed by the City of Willmar by 2030.

The project's history is summarized in the following paragraphs, including existing conditions and emerging trends that led to project implementation. Also included is a

---

discussion summarizing each of the three primary goals (improve safety, maintain performance, and address future land use).

## **2.6 Project History**

### **Existing Conditions and Emerging Trends**

Trunk Highway 23 shares a common section with U.S. Highway 71 through approximately 3.5 miles of Dovre Township in Kandiyohi County, northeast of the City of Willmar. This segment of highway has been constructed as a rural, four-lane divided expressway with at-grade intersections at public roadways. The Highway 23/71 corridor is nestled between several lakes, notably Eagle, Point, Skataas, Swan, and Willmar Lakes. The lakes are ringed with resort and residential development. Low density commercial development is generally located on the west side of Highway 23/71, and large parcels of open developable properties lie on both sides of the highway. Several large parcels of land are available to accommodate new business growth in the corridor and can accommodate large commercial developments; however, existing on-site utilities are currently not adequate to serve prospective growth. Existing utility replacement and extension of city sewer and water utilities to properties in the area is imminent, and land available for development is expected to convert to urban uses. Over time, this land use conversion will affect the local and regional transportation system and require changes to control traffic at intersections in order to preserve the long-term safety and mobility along Highway 23/71.

### **Highway 23 Interregional Corridor Management Plan Implementation**

Mn/DOT designated Highway 23 an Interregional Corridor (IRC) in January 2000, as part of the approval of the State Transportation Plan. Highway 23 through Kandiyohi County is identified as a medium priority IRC route, linking the regional trade centers of Willmar, Marshall, St. Cloud, and Mora with the state's high priority Interstate Highways 35, 94, and 90. A minimum IRC performance target on the Highway 23 corridor is 55 mph average travel speed for a one-hour trip. Controlled access to the highway is another goal for the IRC system. Access conditions and management strategies will be further discussed in this section.

To achieve the state's goal of an efficient and reliable transportation route, plans and projects for improving safety, capacity, and access management along Highway 23 need to be developed and implemented. These actions will allow Mn/DOT to work towards preserving and protecting the statewide system of IRC highways in an effort to realize performance targets.

### **Improving Safety and Performance by Connecting Highway 23 Projects**

The proposed project is located between two recently completed sections of Highway 23. Highway 23 bypasses the City of Willmar on the east (the "Willmar Bypass"). This section was completed in 2002 as a rural, four-lane divided freeway section. At its intersection with Highway 71 (Highway 294) on the northeast side of Willmar, it forms the southern terminus of the Highway 23/71 Improvement Project study area. At the northern terminus of the study area, an 11-mile segment of Highway 23 was reconstructed and expanded to a four-lane expressway through the Spicer and New London area. This segment was opened to traffic in 2005 and included a diamond interchange with CSAH 9 located in Green Lake Township and just north of the proposed study area. The shared segment of Highway 23/71, with its at-grade intersections, represents an opportunity to connect these two freeway/expressway sections with

---

improved intersection safety and access management, consistent with the IRC performance goals established for the medium priority corridor.

### **Highway 23/71 Access and Interchange Study (2004)**

The open and underutilized land located adjacent to the Highway 23/71 Corridor is conducive to attracting higher-density commercial and residential growth. The resulting emerging safety, access, and IRC performance issues prompted Mn/DOT to study the Highway 23/71 Corridor with a goal of preserving Highway 23's performance as one of the state's important IRC routes. Mn/DOT led a study in 2004 that developed a two-phased approach for short- and long-range planning for the 3.5-mile segment of Highway 23/71. The Access and Interchange Study's Technical and Project Advisory Committees developed a two phase concept plan to accomplish the short- and long-range planning goals consistent with the IRC philosophy established for the corridor.

The interim plan (Phase I) addresses immediate needs to improve access conditions and safety issues. The study recommends Phase I activities, including short-term projects that Mn/DOT and its local government study partners could implement in the near future to temporarily manage the effects of land use changes on the Highway 23/71 corridor and surrounding roadway network. These short-term improvements, including minor frontage road/backage road construction, temporary traffic signalization, and highway median closures, will complement the long-range plan (Phase II) needs for the Highway 23/71 corridor. The study's long-range Phase II recommendations include a freeway section with grade-separated intersections, construction of local city/township/county road connections and frontage road/backage roads, and uncontrolled intersection access closures. The DEIS is being completed for the implementation of the long-range plan.

#### **2.6.1 Improve Safety**

##### **Intersection Safety**

Individual intersections along the Highway 23/71 Corridor were evaluated. Historically, two intersections with the highest frequency of crashes are Highway 23/71 at CSAH 25 and Highway 23/71 at County Road (CR) 90. From January 1, 2000 to December 31, 2005, the Highway 23/71 intersection with CSAH 25 experienced ten crashes, eight of which were of the right angle type. The 48th Avenue intersection had eight crashes, six of which were right angle crashes, and the 41st Avenue intersection had seven crashes with a variety of different types of crashes. The CR 90 intersection also had seven crashes, five of which were of the right angle type. The CR 90 crossing of Highway 23/71 is experiencing safety issues because of growing traffic volumes (school and civic center traffic) and the close proximity to the high-speed merge/diverge intersection with Highway 294.

##### **Corridor Safety**

Crash and severity rates for Highway 23/71 from 2000 to 2005 were compared to statewide and Mn/DOT – District 8 averages for comparable highway segments. The computation of crash rates, rather than frequency alone, provides a meaningful comparison of crash data that is based on crash rates rather than crash frequency.

Crash rates are determined by dividing the total number of crashes by the total number of vehicle miles traveled (VMT) during the same period. Crash rates are then expressed in

---

<sup>1</sup> Data from 2003 was deemed unreliable and not used.

crashes per million vehicle miles traveled (MVMT). A high crash rate may be an indication of a safety issue that might be worthy of addressing through geometric changes to the roadway, implementation of access management measures, and/or applying other proven safety improvement strategies.

In the five years of data reviewed, there were 73 crashes in the project study area. Of these, 60 percent involved property damage, 40 percent resulted in personal injury with one crash involving a fatality. Of the 73 crashes that occurred in the study area, 33 percent were right angle crashes, 36 percent were run off the road, and 12 percent were rear end collisions. Right angle crashes are predominant at the intersections of CSAH 25, 48th Avenue, and CR 90.

The severity rate is calculated by weighing the crash rate against the severity of crashes. Severity is gauged by the number of fatalities, personal injury, or property damage crashes that were recorded. The Highway 23/71 corridor's crash and severity rates were then calculated. The crash rate for the Highway 23/71 Corridor in 2004 was 0.90 with a severity rate of 1.55. Table 3 provides a summary of these calculations.

**Table 3  
Corridor Crash and Severity Rates (1/1/2000 – 12/31/2005)**

Description	Mile Point		Length (miles)	Segment ADT (2002)	4-year MVMT	Fatality	Personal Injury Type			Property Damage	Total	Crash Rate	Severity Rate
	Begin	End					A	B	C				
TOTAL	126.185	129.372	3.2	14,000	81.43	1	6	9	13	44	73	0.90	1.55

Source: Mn/DOT

Note: Data from 2003 was deemed unreliable and not used.

The Highway 23/71 Corridor crash and severity rate averages are lower than Mn/DOT – District 8 averages; however, the severity rate is higher than the statewide average for similar types of facilities. The high severity rate is an indication of a high number of right angle crashes, where side-road drivers' ability to judge gaps in traffic may be hindered by horizontal or vertical curves on the expressway. The high severity rate may also be caused by the frequency of travelers visiting highway-oriented commercial developments, which creates additional turning movements with higher traffic volumes and therefore greater opportunities for crashes.

The District 8 and statewide average rates shown in Table 4 below are compared to the rates for the Highway 23/71 study segment.

**Table 4  
Average Crash and Severity Rates (2004)**

Crash Rates			
Facility Type	District 8	Statewide	Highway 23/71
4-lane divided	1.50	1.40	0.90

Source: Mn/DOT

Severity Rates			
Facility Type	District 8	Statewide	Highway 23/71
4-lane divided	3.41	0.87	1.55

Note: Data from 2003 was deemed unreliable and not used.

---

## **Maintain Performance**

The need to maintain performance by managing access on the Highway 23/71 Corridor has been considered by Mn/DOT since the planning and construction of the Willmar Bypass. As segments of the larger bypass project have been completed, including the completion of the four-lane segment to the divergence of the two highways north of Willmar, points of access have remained largely the same for Highway 23/71 Corridor businesses and local road connections. As previously mentioned, the IRC goals define access control targets. With a prescribed process to comply with the state's transportation and economic development goals, all activities concerning the future of Highway 23 must be approached to maximize the performance of the corridor and preserve its ability to achieve the desired IRC medium priority performance goal of 55 mph average travel speed for a one-hour trip.

### **Existing Access**

There are nine points of access in the 3.5-mile study area (approximately three per mile). The existing access density is three times greater than that prescribed by the State Access Management Guidelines. This exceeds (by two accesses per mile) the Mn/DOT-recommended access standards for an IRC highway with emerging freeway conditions mile. The desired access spacing for future conditions on Highway 23/71 is one access point per mile. Excessive access on Highway 23/71 may be a factor which contributes to a higher-than-State average crash severity rate for similar four-lane divided highways (see DEIS Table 4).

### **Point Lake - Public Waters and Local Road Access**

A public access to Point Lake currently exists, through a boat launch area on the northeast side of the lake adjacent to Highway 23/71. Public access to the lake needs to be maintained, but it would be desirable to remove the direct access to/from Highway 23/71 due to the type of vehicles that use the site. In the past, slow moving vehicles with boat trailers entering/exiting the boat launch area have created conflicts and unsafe conditions with motorists along Highway 23/71.

Access alternatives need to be studied to maintain a public boat launch on the lake, but also avoid or limit the environmental effects of relocating the public access on Point Lake. Available right-of-way is either extremely limited or not available without land acquisition for this purpose.

In addition, a number of residential and business properties along 26th Avenue NE and Point Lake Drive must currently use the direct Highway 23/71 access for property egress, as there are no other local connecting roadways.

## **2.6.2 Address Future Land Use**

### **Planned Commercial and Residential Development Access**

In addition to controlling existing accesses, the need to serve the growing population in Kandiyohi County with improved regional transportation facilities has been documented by a 30-year population growth rate of 35 percent, which is higher than the state's growth rate of 29 percent over the same 30-year period. In particular, residential growth in the north Willmar area and Dovre Township has increased traffic volumes on this segment of highway to an average daily volume of 15,900 (2004 data), the highest volume on the trunk highway system in Mn/DOT – District 8. Large tracts of developable properties are

---

available for commercial and residential development adjacent to the highway. The development of these parcels is imminent and despite being welcomed community business additions, they are also potential threats for future performance of Highway 23/71 without the proper access controls. Development in currently vacant areas that could be used for future roadway infrastructure and access management improvements may jeopardize Mn/DOT's ability to construct future interchanges or other transportation improvements due to potentially costly property acquisitions that would become necessary.

The study area is included in the City of Willmar's Urban Growth Boundary. It is expected that over the long-term development plan for the proposed Highway 23/71 project, municipal services will be extended as portions of the study area are annexed by the City of Willmar.