



September 30, 2024

—Via Electronic Filing—

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

**Re: In the Matter of the Application for a Route Permit for the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project Pursuant to the Alternative Permitting Process**  
Docket No. ET6675/TL-24-232

Dear Mr. Seuffert:

ITC Midwest LLC (ITC Midwest) hereby submits its Application to the Minnesota Public Utilities Commission (Commission) for a Route Permit for the Forks 161 kV Switching Station and Forks-Rost 161 kilovolt (kV) Transmission Line Project (Project) under the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new, approximately 8.5 mile long, 161 kV high voltage transmission line. This Project is needed to mitigate existing system low voltage issues and to help ensure long term area reliability when considering existing load and potential future area load growth.

ITC Midwest has electronically filed this letter and the Route Permit Application with the Commission. Copies of this application are also being served on the persons on the attached distribution lists. The application processing fee, as required by Minn. R. 7850.1800, subp. 2, was sent previously under separate cover. Please contact me at (763) 257-6821 or [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com) if you have any questions regarding this filing.

Appendix G of the Route Permit Application is marked as “Trade Secret.” Certain data contained therein is considered to be not-public data pursuant to Minn. Stat. § 13.02, subd. 9, and is Trade Secret information pursuant to Minn. Stat. § 13.37, subd. 1(b). This appendix contains maps that show the specific locations of sensitive archaeological and historic sites that are not to be publicly disclosed.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest LLC  
Email: [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com)

cc: Service List

**ROUTE PERMIT APPLICATION  
FOR THE  
FORKS 161 kV SWITCHING STATION AND  
FORKS-ROST 161 kV TRANSMISSION LINE  
PROJECT**



**ITC MIDWEST LLC**

**Docket Number  
ET6675/TL-24-232**

Prepared by:



September 2024

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## LIST OF TERMS AND ABBREVIATIONS

ACSR	aluminum conductor steel reinforced
Alignment	the proposed location of the transmission line within the Route
APLIC	Avian Power Line Interaction Committee
AQI	Air Quality Index
BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BMP	Best Management Practice
CAA	Clean Air Act
CO	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
Commission	Minnesota Public Utilities Commission
CSW	Construction Stormwater
CWA	Clean Water Act
CWI	County Well Index
dBA	decibels on the A-weighted scale
DWSMA	Drinking Water Supply Management Area
EA	Environmental Assessment
EEL	Edison Electric Institute
EERA	Department of Commerce, Energy Environmental Review and Analysis
EJ	environmental justice
EJScreen	Environmental Justice Screening Tool (USEPA)
ELF	extremely low frequency
EMF	Electric and Magnetic Fields
EMS	Emergency Medical Services
ESA	Endangered Species Act
Exemption	Federal Approval Exemption for Utilities
FEMA	Federal Emergency Management Agency
G	gauss
GHG	greenhouse gases
HVTL	high voltage transmission line
ICES	International Committee for Electromagnetic Safety
ICNIRP	International Commission for Non-Ionizing Radiation Protection
IPaC	Information for Planning and Conservation (USFWS)
ITC Midwest	ITC Midwest LLC
kV	kilovolt
kV/m	kilovolts per meter
L <sub>eq</sub>	Energy-based time-averaged noise level
LEPF	Large Electric Power Facilities

LGU	local government unit
LiDAR	Light Detection and Ranging
MBS	Minnesota Biological Survey
MCE	Minnesota Conservation Explorer
MDH	Minnesota Department of Health
Merjent	Merjent, Inc.
mG	milligauss
MGS	Minnesota Geological Survey
MISO	Midcontinent Independent System Operator
MNDNR	Minnesota Department of Natural Resources
MnDOT	Minnesota Department of Transportation
MPCA	Minnesota Pollution Control Agency
MRES	Missouri River Energy Services
NAAQS	National Ambient Air Quality Standards
NAC	Noise Area Classifications
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Code
NEV	neutral-to-earth voltage
NHIS	Natural Heritage Information System
NIEHS	National Institute of Environmental Health Sciences (U.S.)
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O <sub>3</sub>	ozone
OSA	Office of the State Archaeologist (Minnesota)
Pb	lead
PEM	palustrine emergent
PM	Particulate matter
PM <sub>10</sub>	PM less than 10 microns in diameter
PM <sub>2.5</sub>	PM less than 2.5 microns in diameter
Project	Proposed 161 kilovolt transmission line from new Forks Switching Station to new Rost Substation in Jackson County, Minnesota and the new Forks Switching Station
PWI	Public Waters Inventory
Route	“Route” means the location of a high voltage transmission line between two end points. The route may have a variable width of up to 1.25 miles. (Minnesota Statute § 216E.01, subd. 8)
ROW	right-of-way

RPA	Route Permit Application
SCADA	supervisory control and data acquisition
SCS	Soil Conservation Service (USDA)
SDS	State Disposal System
SHPO	State Historic Preservation Office (Minnesota)
SNA	Scientific and Natural Areas
SO <sub>2</sub>	sulfur dioxide
SOB	Sites of Biodiversity Significance
SPCC	Spill Prevention, Control and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WCA	Wetland Conservation Act
WHO	World Health Organization
WHP	Wellhead Protection (Minnesota State Rule 4720.5100-4720.5590)
WHPA	Wellhead Protection Area
WMA	Wildlife Management Areas
WPA	Waterfowl Production Area
WQC	Water Quality Certification

## **1.0 EXECUTIVE SUMMARY**

### **1.1 INTRODUCTION**

ITC Midwest LLC (ITC Midwest) is applying to the Minnesota Public Utilities Commission (Commission) for a Route Permit to construct a new 161 kilovolt (kV) transmission line (the Project) from the new Forks Switching Station to the new Rost Substation in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 8.5 mile long 161 kV high voltage transmission line from the Forks Switching Station to the new Rost Substation, which will be permitted and constructed as a separate project by Great River Energy.

ITC Midwest anticipates starting construction in the second quarter of 2026 and energizing the switching station and transmission line in December 2026.

### **1.2 ITC MIDWEST**

ITC Midwest operates more than 6,600 circuit miles of transmission lines in Iowa, Minnesota, Illinois, Missouri, and Wisconsin, as shown in Figure 1.2-1 below. ITC Midwest is a subsidiary of ITC Holdings Corp., the largest independent electricity transmission company in the U.S. with operations in seven states. ITC Midwest connects a variety of customers at transmission-level voltages. These include large generation and distribution utilities, municipal utility systems, rural electric utility cooperatives, and large commercial and industrial customers that require high-voltage electricity. ITC Midwest is headquartered in Cedar Rapids, Iowa, and maintains warehouses in Dubuque, Iowa City, and Perry, Iowa, and Albert Lea and Lakefield, Minnesota.

To date, ITC Midwest has completed 40 new generator interconnections, adding approximately 4,939 megawatts of new generating capacity to the grid, including approximately 4,230 megawatts of wind energy production capacity.

Over the past decade, ITC Midwest completed more than 600 miles of 34.5 kV to 69 kV line rebuilds. This is part of ITC Midwest's continuing commitment to improve the reliability of the electric transmission system and serve the growing needs of customers in the region. These transmission line upgrades are enhancing grid efficiency, increasing the system's capacity, and reducing outages by building the lines to modern construction standards.

**Figure 1.2-1 – ITC Midwest Transmission System**



### 1.3 PROJECT CONTACT

ITC Midwest is the requested permittee for the Project, who will have ownership of the Project at the time of filing this application and after commercial operation. Phone number, email address, and website for the Project are:

Project phone number: (763) 257-6821  
Project email address: [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com)  
Project website: [www.forks-rost.com](http://www.forks-rost.com)

ITC Midwest's contact for the Project is:

Mark Rothfork  
Lead Permitting Specialist  
ITC Midwest LLC  
20789 780<sup>th</sup> Avenue  
Albert Lea, MN 56007  
(763) 257-6821

## **1.4 PROJECT PURPOSE AND NEED**

The proposed Project is the result of a joint study between ITC Midwest, Great River Energy, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed to the transmission system for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage conditions when certain transmission facilities are out of service. The Forks-Rost 161 kV transmission line and Forks Switching Station are components of an overall area plan that will include complementary projects by MRES and Great River Energy to ensure the long-term reliability and resilience in the area's transmission system. This Project, in conjunction with the MRES Lorraine Substation project in Worthington and Great River Energy Rost Substation project and Rost to Lorraine 69 kV transmission line project, mitigates the existing system low voltage issues and helps ensure long term area reliability when considering existing load and potential future area load growth.

## **1.5 PROPOSED PROJECT**

ITC Midwest is applying to the Commission for a Route Permit to construct the Project. At this time, ITC Midwest proposes that the Project will follow the Proposed Route as depicted on Figure 1.5-1 below and on the attached maps.

ITC Midwest plans to begin construction of the Project in the second quarter of 2026.

ITC Midwest is requesting approval of the Proposed Route as depicted in Figure 1.5-1 below and the maps found in Appendix B, showing the proposed alignment, right-of-way (ROW), and route width for the Project. ITC Midwest is requesting a route width of 1,500 feet (750 feet on either side of the proposed transmission centerline). At a minimum, the Project will require a total ROW of 100 feet wide (typically 50 feet on each side of the transmission centerline).

Steel monopole structures with horizontal braced post insulators will be used for the 161 kV transmission line. Typical pole heights will range from 80 to 120 feet above ground, and spans between poles will range from 600 to 800 feet. The Project will be sited on private land except where it crosses road ROWs, and the alignment will typically be set back approximately 5 to 8 feet from road ROWs. ITC Midwest will work with Great River Energy and MRES to coordinate interconnection facility designs and other routing considerations.

ITC Midwest started gathering stakeholder, agency, tribal, and public input on the Project in 2023 through letters, meetings, and open houses. The input received from these efforts has been applied and documented throughout this application.



There are several options for interested persons to receive information about the route permit process. Persons wanting to have their name added to the Project mailing list can send an email to [eservice.admin@state.mn.us](mailto:eservice.admin@state.mn.us) or call 651.201.2246. If sending an email or leaving a phone message please include:

- 1) how you would like to receive mail (regular mail or email); and
- 2) the docket number (TL-24-232), your name, and your complete mailing address or email address.

Persons wanting to subscribe to the Project's route permit docket and receive email notifications when information is filed in the docket should visit: <https://www.edockets.state.mn.us/>, select "Subscribe to Dockets", enter your email address and select "Docket Number" from the Type of Subscriptions dropdown box. Select "24" for the first Docket number drop down box and enter "232" in the second box. Then click on the "Add to List" button. You must then click the "Save" button at the bottom of the page to submit your subscription request. You should receive an email from [Efiling.Admin@state.mn.us](mailto:Efiling.Admin@state.mn.us) to the e-mail address you provided; you must click the link in this email to confirm your subscription to the Project's docket.

A copy of this Route Permit Application (RPA) is available at the following location for the public to review:

Lakefield Public Library  
410 Main Street  
Lakefield, MN 56150

If you have questions about the state regulatory process, you may contact the Minnesota state regulatory staff for this Project listed below:

**Minnesota Public Utilities Commission**

Jacques Harvieux  
121 7<sup>th</sup> Place East, Suite 350  
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**1.8 STATE ROUTING PROCESS**

Minnesota Statute Ch. 216E, also known as the Minnesota Power Plant Siting Act, provides the Commission with siting and routing authority for Large Electric Power Facilities (LEPF). Pursuant to this authority, Minn. R. ch. 7850 lays out the process by which the Commission selects routes for high voltage transmission lines. Minn. Rule 7850.1000, subp. 9, defines "high voltage transmission line," or HVTL, as "...a conductor of electric energy and associated facilities designed for and capable of operating at a nominal voltage of 100 kV or more either immediately or without significant modification. Associated facilities shall include, but not be limited to, insulators, towers, substations, and terminals."



This application is submitted under the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900. The Project qualifies for review under the alternative permitting process authorized by Minn. Stat. § 216E.04, subd. 2(3) and Minn. R. 7850.2800, subp. 1(C) because the Project is a high voltage transmission line between 100 and 200 kV.

ITC Midwest notified the Commission on July 30, 2024, that ITC Midwest intended to use the alternative permitting process for the Project. The letter complied with the requirements of Minn. R. 7850.2800, subp. 2, to notify the Commission of its intent at least 10 days prior to submitting an application for a Route Permit. A copy of this letter is attached as Appendix D.

The Commission has adopted rules for the consideration of Route Permit Applications in Minn. R. 7850.4000 to 7850.4400. A RPA completeness checklist is provided in Appendix A with cross references indicating where the information required by Minnesota Statutes and Administrative Rules can be found in this application.

## **1.9 APPLICANT'S REQUEST**

ITC Midwest respectfully requests that the Commission approve a Route Permit for the Project along the Proposed Route.

This RPA demonstrates that issuance of a Route Permit for construction of the Project along the Proposed Route considers, and satisfactorily addresses factors as set forth in Minn. Stat. § 216E.03, subd. 7, and Minn. R. 7850.4100. The Project will support the State's goals to conserve resources and to minimize environmental and human settlement impacts and land use and will ensure the State's electric energy security through the construction and modernization of efficient, cost-effective transmission infrastructure.

## **2.0 PROPOSED PROJECT**

### **2.1 PROJECT DESCRIPTION**

The Project is located entirely in Jackson County, Minnesota (see Figure 1.5-1 above) in Ewington and Rost Townships.

As shown in Figure 1.5-1 above, ITC Midwest proposes to:

- Construct approximately 8.5 miles of new 161 kV transmission line starting at the new Rost Substation. The Rost Substation will be permitted and constructed separately by Great River Energy;
- Connect the new 161 kV transmission line to the new Forks Switching Station to be constructed by ITC Midwest.

Great River Energy will secure a county conditional use permit and other required approvals for construction of its proposed Rost Substation. The permitting and construction of the Rost Substation will be completed by Great River Energy.

## **2.2 TRANSMISSION LINE**

The Proposed Route is shown in Figure 1.5-1 above, and Appendix B contains a series of aerial photo maps depicting the proposed alignment, route, and ROW for the Project.

### **2.2.1 Proposed Route**

The Project will begin at the new Rost Substation, to be permitted and built separately by Great River Energy, near the intersection of County Road 5 and 790<sup>th</sup> Street in Jackson County. The 161 kV transmission line will exit the substation and run south along County Road 5 to 780<sup>th</sup> Street for approximately 1 mile, where it will turn east and run for 1 mile to 360<sup>th</sup> Avenue. The transmission line will run south on 360<sup>th</sup> Avenue for 1 mile before turning east and continuing on 770<sup>th</sup> Street for approximately 5.5 miles, where it will then enter the new Forks Switching Station on the west. The new Forks Switching Station will be built, owned, and operated by ITC Midwest.

### **2.2.2 Route Width and Transmission Line ROW**

The route width is the area in which the Commission authorizes a permittee to place the proposed transmission line facilities. A “route” may have “a variable width of up to 1.25 miles”, within which the ROW for a HVTL can be located (Minn. Stat. § 216E.01, subd. 8). The transmission line ROW is the specific area within a route that is required for the construction, maintenance, and operation of a HVTL.

For this Project, ITC Midwest is requesting a route width of 1,500 feet (750 feet on either side of the proposed transmission centerline). ITC Midwest is requesting a route width that is wide enough to provide flexibility to make alignment adjustments during the final design to work with landowners, to avoid sensitive natural resources, and to manage construction constraints as needed.

Once a Route Permit is issued, ITC Midwest land agents will work directly with individual landowners to acquire the necessary easements for the Project. At a minimum, the Project will require a total ROW of 100 feet wide (typically 50 feet on each side of the transmission centerline) and in some cases up to 150 feet wide.

### **2.2.3 Transmission Structure and Conductor Design**

Potential structure designs are provided on Figure 2.2-1 below. Structure dimensions are provided in Table 2.2.3-1 below.

TABLE 2.2.3-1						
<b>Structure Design Summary</b>						
Structure type	Structure material	Right-of-way width (feet)	Structure height (feet)	Foundation	Foundation diameter (feet)	Span between structures (feet)
Monopole	Steel	100 - 150	80 – 120	Direct Embed or Vibratory Caisson	3 - 5	600 – 800
Monopole (Deadends and Tangents)	Steel	100 - 150	80 – 120	Concrete Foundation	10 - 12	600 – 800
<p>Note: The values in the table above are typical values expected for the majority structures based on similar facilities. Actual values may vary.</p>						

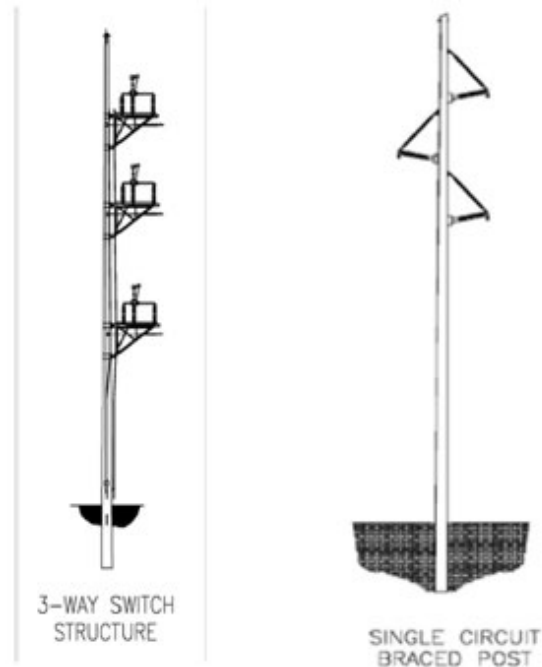
The majority of the 161 kV transmission line will consist of single-circuit, braced post monopole steel structures, spaced approximately 600 to 800 feet apart. Transmission structures will typically range in height from 80 to 120 feet above ground, depending upon the terrain and environmental constraints. The average diameter of the steel structures at ground level is 3 to 5 feet.

A deadend is a structure used to change direction and/or wire tension on a transmission line. Deadend structures are also used as a “storm structure” to limit the number of structures damaged by a cascading effect due to higher line tensions when a pole is knocked down by a storm. Anticipated deadend structure locations are shown in the Appendix B map series.

The single circuit structures will have three single conductor phase wires and one shield wire. It is anticipated that the phase wires will be “T2 Grosbeak” which consists of two aluminum conductor steel reinforced (ACSR) “Grosbeak” conductors in a twisted pair configuration, or a conductor with similar electrical capacity and mechanical strength properties. The shield wire will be a 48-count optical ground wire.

Some Project structures may be installed using a vibratory caisson foundation. Vibratory caissons are a foundation type that can be used in place of typically installed direct embed structure foundations. A vibratory caisson is a straight steel pole section with no bottom that is driven into the ground with a vibratory hammer. The caisson is attached to the hammer, lifted into place, and dropped until it contacts the ground. Then, the hammer vibrates at a high frequency while applying a downward force. This foundation installation method does not produce spoils as would a drilled pier or other traditional foundation type.

**Figure 2.2-1 – Typical Transmission Structure Types**



#### **2.2.4 Design Options to Accommodate Future Expansion**

Minnesota rules require RPAs to include a description of possible design options to accommodate expansion of the high voltage transmission line in the future (Minn. R. 7850.1900, subp. 2[L]). The Project is designed to maintain reliability requirements in the area and is sized to accommodate electric demand growth. The Project transmission line will not be designed to accommodate future double-circuiting, but the Forks Switching Station will be laid out to accommodate future expansion for future additional transmission line interconnections.

#### **2.3 FORKS SWITCHING SUBSTATION**

The new Forks Switching Station will be equipped with SF6 gas circuit breakers with current sensing transformers, voltage sensing and station service type transformers, and a control enclosure which will house required relaying equipment and supervisory control and data acquisition (SCADA) equipment. This equipment is designed to protect human health as well as the other equipment on the transmission system by isolating the fault and de-energizing a transmission line should any unsafe line faults occur on it, while keeping the other transmission lines connected to the Forks Switching Station in-service. The Forks Switching Station will initially have three 161 kV line connected to it and the Switching Station will initially have a ring bus configuration. In addition to the new Forks – Rost 161 kV line that will be constructed, the existing ITC Midwest Lakefield Junction – Dickinson County 161 kV line will be cut into Forks creating a Forks – Lakefield Junction and Dickinson County – Forks 161 kV lines.

## 2.4 PROJECT COST

### 2.4.1 Project Costs

Estimated costs to construct the Project are approximately \$13.5 to \$18.8 million. Costs by component are summarized in Table 2.4.1-1 below.

TABLE 2.4.1-1			
<b>Estimated Project Construction Costs</b>			
Project Component	Lower-Range (2023\$) (\$Millions)	Mid-Range (2023\$) (\$Millions)	Upper-Range (2023\$) (\$Millions)
Transmission Line	\$8.2	\$9.5	\$10.7
Switching Station	\$5.3	\$6.2	\$8.1
<b>TOTAL</b>	<b>\$13.5</b>	<b>\$15.7</b>	<b>\$18.8</b>

### 2.4.2 Operations and Maintenance Costs

The estimated annual cost of ROW maintenance and operation of ITC Midwest’s transmission lines in Minnesota currently averages about \$2,000 per mile. Storm restoration, annual inspections, and ordinary replacement costs are included in these annual operating and maintenance costs.

## 2.5 PROJECT SCHEDULE

The anticipated permitting and construction schedule for the Project is provided in Table 2.5-1 below. It is anticipated that construction of the Project will begin in Q2, 2026 and the Project will be in service in December 2026. This schedule is based on information known as of the date of the filing of this Application and may be subject to change.

TABLE 2.5-1	
<b>Anticipated Project Schedule</b>	
Activity	Anticipated Schedule
Pre-Application Outreach	June 2023 – June 2024
Route Permit Application Filed	September 2024
Route Permit Issued	July 2025
Land Acquisition Begins	August 2025
Survey and Transmission Line Design	July 2025 – March 2026
Other Federal, State and Local Permits Issued	January 2026
Start ROW Clearing	March 2026
Start Construction	April 2026
Project In-Service	December 2026

### 3.0 ROUTE ALTERNATIVES TO THE PROJECT

#### 3.1 ANALYSIS OF ROUTE ALTERNATIVES

Minnesota Statutes § 216E.04, subd. 3 and Minn. R. 7850.3100 require an applicant to identify any alternative routes that were considered and rejected for the Project. ITC Midwest evaluated four routes, including three alternative routes and the Proposed Route (see Figure 3.1-1 below) for the Project.

The three alternative routes would be similar to the Proposed Route in that they would include similar connection points to the new Rost Substation and new Forks Switching Station. Descriptions of the three alternative routes that were evaluated by ITC Midwest, including how they differ from the Proposed Route, are provided below.

**Route Alternative 1** – This route alternative is the same length as the Proposed Route (8.5 miles); however, this alternative differs in that it would travel north from the Forks Switching Station through agricultural fields along the quarter-section line between 410<sup>th</sup> Avenue and 420<sup>th</sup> Avenue for 2 miles, where it would then head west along 790<sup>th</sup> Street for 6.5 miles to the connection point with the Rost Switching Station. The north-south alignment of this alternative would parallel ITC Midwest’s existing Lakefield Junction 161 kV transmission line, with the remaining east-west portion (6.5 miles) consisting of new construction. This route alternative was rejected for the following reasons:

- Near the intersection of 790<sup>th</sup> Street and 400<sup>th</sup> Avenue, this route would cross through or be directly adjacent to the U.S. Fish and Wildlife Service (USFWS) Ulbricht Waterfowl Production Area, which ITC Midwest considers a major avoidance area. This area was avoided in consideration of the state’s routing factors in Minn. Stat. § 216E.03, subd. 7(b) and Minn. R. 7850.4100.
- This alternative would entail building 2 miles of the 161 kV transmission line as a double-circuited line on ITC Midwest’s Lakefield Junction line, which would pose single pole contingency concerns. Specifically, double-circuiting the proposed line on the Lakefield Junction line would expose two 161 kV lines to an outage risk if any of the double-circuit poles were impacted. An outage on the Lakefield Junction 161 kV line would cause curtailment issues for several wind farms in the region.

**Route Alternative 2** – This route alternative is the same length as the Proposed Route (8.5 miles) and also parallels the Proposed Route from its origin at the Forks Switching Station to the west for 5.5 miles but would then continue west along 770<sup>th</sup> Street for 1 mile before turning north along 350<sup>th</sup> Avenue for 2 miles to the connection point with the Rost Switching Station. The 2 miles that this alternative route would run north-south along 350<sup>th</sup> Avenue would parallel an existing Great River Energy 69 kV transmission line. This alternative was rejected for the following reasons:

- This alternative would entail building 2 miles of double-circuit on a Great River Energy 69 kV transmission line, which would pose single pole contingency concerns. Specifically, double-circuiting the proposed line on the Great River Energy line would expose the proposed 161 kV line and the Great River Energy 69 kV line to an outage risk if any of the double-circuit poles were impacted.

- The intersection of 780<sup>th</sup> Street and 350<sup>th</sup> Avenue is congested with an existing distribution substation in the southwest quadrant and a homestead in the southeast quadrant. Routing through this area would require modifications to the distribution substation or impacts to the homestead.
- The existing Great River Energy 69 kV line is only three years old. Rebuilding this line as a double circuit would be costly and would not be an efficient use of resources.
- There is a wind farm tap along this route on the west side of 350<sup>th</sup> Avenue. Maintenance on the double-circuited line would require total curtailment of the wind farm.

**Route Alternative 3** – This route alternative would be 2 miles longer than the Proposed Route. This alternative would originate at the Forks Switching Station and then travel south through agricultural fields along the quarter-section line between 410<sup>th</sup> Avenue and 420<sup>th</sup> Avenue for 1 mile, where it would then head west for 6.5 miles along 760<sup>th</sup> Street, before turning north along 350<sup>th</sup> Avenue for 3 miles to the connection point with the Rost Switching Station. The 1-mile segment running north-south from of the Forks Switching Station would parallel ITC Midwest's existing Lakefield Junction 161 kV transmission line. The 6.5-mile east-west segment would parallel a Great River Energy 69 kV transmission line. The 3-mile north-south segment that connects to the Rost Switching Station would also parallel a Great River Energy 69 kV transmission line. This alternative was rejected for the following reasons:

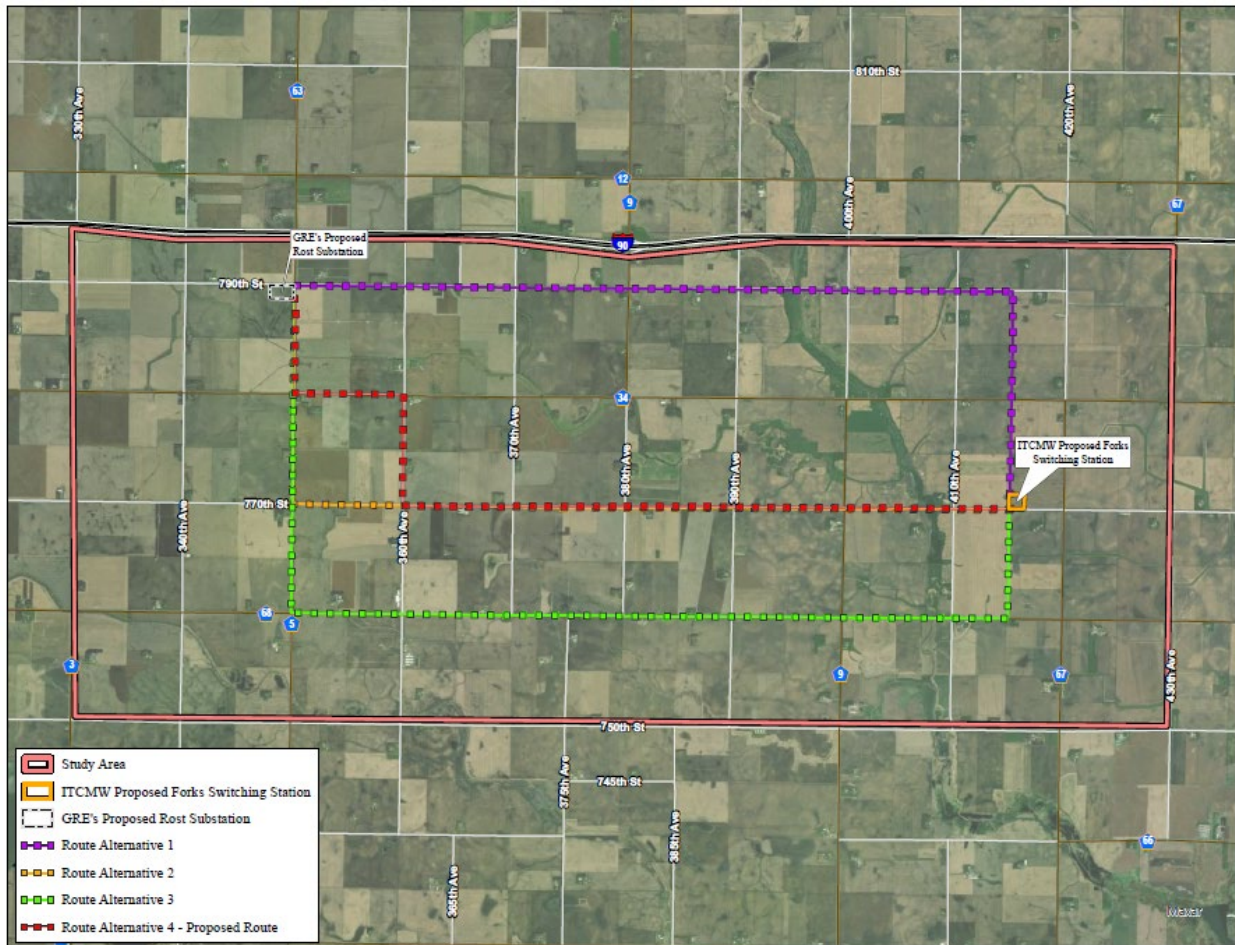
- This alternative would entail building 1 mile of the 161 kV transmission line as a double-circuited line on ITC Midwest's Lakefield Junction line, which would pose single pole contingency concerns. Specifically, double-circuiting the proposed line on the Lakefield Junction line would expose two 161 kV lines to an outage risk if any of the double-circuit poles were impacted. An outage on the Lakefield Junction 161 kV line would cause curtailment issues for several wind farms in the region.
- This alternative would entail 9.5 miles of double-circuit on a Great River Energy 69 kV transmission line, which would pose single pole contingency concerns. Specifically, double-circuiting the proposed line on the Great River Energy line would expose the proposed 161 kV line and the Great River Energy 69 kV line to an outage risk if any of the double-circuit poles were impacted.
- The intersection of 780<sup>th</sup> Street and 350<sup>th</sup> Avenue is congested with an existing distribution substation in the southwest quadrant and a homestead in the southeast quadrant. Routing through this area would require modifications to the distribution substation or impacts to the homestead.
- The existing Great River Energy 69 kV line is only three years old. Rebuilding this line as a double circuit would be costly and would be an inefficient use of resources.

- There is a wind farm tap along this route on the west side of 350<sup>th</sup> Avenue. Maintenance on the double-circuited line would require total curtailment of the wind farm.
- This alternative would be 2 miles longer than the Proposed Route, which would increase the overall cost of the Project.

ITC Midwest also evaluated four options for the location of the Forks Switching Station, all of which are in close proximity along 770<sup>th</sup> Street. All four options were immediately adjacent to the existing roadway and consisted of agricultural lands. Given that each option would result in the same types of impacts, ITC Midwest selected the Forks Switching Station option based on the ability to enter into an option agreement with the landowner and to avoid potential wetland impacts.

In summary, ITC Midwest considered but rejected the alternative routes due to sensitive biological resource concerns, constructability, and single pole contingency concerns, as well as the increased cost and coordination of re-building double-circuited lines, preferred avoidance of congested areas, and an attempt to minimize the overall length of the Project.

**Figure 3.1-1 Route Alternatives Considered and Rejected**





## **4.0 ROUTE SELECTION PROCESS**

### **4.1 SUMMARY OF ROUTE SELECTION PROCESS AND GUIDING FACTORS**

#### **4.1.1 Route Development Process Summary**

ITC Midwest used a comprehensive siting and vetting process to identify route options for the Project. Based on the applicable Minnesota Statutes and Rules, potential state, federal, and local permits or approvals necessary for the Project, and the purpose and need for the Project, ITC Midwest identified a Proposed Route for consideration by the Commission. The route development process leading to the identification of the Proposed Route is discussed in detail in Section 4.2 below.

#### **4.1.2 Routing Factors**

The factors for route development are set forth in Minn. Stat. § 216E.03, subd. 7 and Minn. R. 7850.4100, and these factors directed ITC Midwest's route development process.

Minn. Stat. § 216E.03, subd. 7(a) states that the Commission's route permit determinations "must be guided by the state's goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure." Subdivision 7(e) of the same section requires the Commission to "make specific filings that it has considered locating a route for a high-voltage transmission line on an existing high-voltage transmission route and the use of parallel existing highway ROW and, to the extent those are not used for the route, the Commission must state the reasons."

In addition to the statutory factors noted above, Minn. Stat. § 216E.03, subd. 7(b) and Minn. R. 7850.4100 provide factors that the Commission will consider in determining whether to issue a route permit for a high voltage transmission line. These routing factors from Minn. R. 7850.4100 are:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;
- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;

- H. use of or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;
- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.

In 2023, the Minnesota Legislature amended Minn. Stat. § 216E.03, subd. 7(b) to also include the following considerations when designating routes:

- evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;
- evaluation of the proposed facility's impact on socioeconomic factors; and
- evaluation of the proposed facility's employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility's local employment and economic impacts and may reject or place conditions on a site or route permit based on the local employment and economic impacts.

ITC Midwest used these statutory and rule routing criteria, routing experience, engineering considerations, and stakeholder feedback to develop the Proposed Route for the Project. To minimize impacts to humans and the environment, ITC Midwest first identified routing opportunities and constraints.

Opportunities are resources or conditions that create a potential for transmission line development. They include pre-existing linear infrastructure or other features (e.g., transmission lines, roads, and public land survey divisions of land) along which Project development would be particularly compatible. Opportunities also facilitate Project development by reducing impacts on constraints. Furthermore, Minn. R. 7850.4100 requires the Commission to consider when issuing a route permit the use or paralleling of existing ROWs (e.g., transportation corridors, pipelines, and electrical transmission lines), survey lines, natural division lines, and agricultural field boundaries, where practicable.

Constraints are resources or conditions that could limit or prevent transmission line development. Avoiding those resources or conditions is a goal, but not necessarily a requirement, of the routing process. Constraints might include areas restricted by regulations, or areas where impacts to

resources would be difficult to mitigate. Constraints can include, for example: existing land uses such as homes, religious facilities, and schools; federal, state, and locally designated environmental protection areas; sensitive habitats or areas; cultural resources, such as national landmarks and archaeological sites; and, public infrastructure, such as airports and aeronautical and commercial telecom structures. It is important for the routing process to account for the fact that Project development may affect constraints differently.

In addition, technical considerations can affect the routing process. These include specific engineering requirements, standards, system objectives, and opportunities for efficiency associated with construction of the Project. Other engineering objectives may include line entrance into the substations; minimizing the overall line length; good access for construction, inspections and maintenance; and minimizing the need for specialized structures. These technical guidelines are specific to the Project and inform the technical limitations related to Project design, land requirements, and operational reliability concerns.

The Proposed Route was identified because it takes advantage of routing opportunities, such as co-location with transportation routes, existing access routes for construction and maintenance, land available for ROW, and the minimization of impacts to resources (routing factors) identified in Minnesota Rule 7850.4100. Additionally, the identification, avoidance, and minimization of impacts to Routing Constraints is discussed in detail in Chapter 7.0 of this RPA.

## **4.2 ROUTE DEVELOPMENT PROCESS**

### **4.2.1 Project Study Area**

ITC Midwest identified a Project Study Area that would help guide the corridor development process. The purpose of identifying a Study Area for the Project was to establish boundaries and limits for the information-gathering process (e.g., identifying environmental and land use resources, routing constraints, and routing opportunities) and the subsequent development of a Proposed Route for the Project. The Project Study Area was initially developed based on proximity to existing infrastructure and the proposed station locations. Further consideration was given to major physiographic features, jurisdictional boundaries, sensitive land uses and ownerships, existing utility corridors, and the availability of land for transmission ROW. The Project Study Area is shown on Map 1.

### **4.2.2 Proposed Route**

ITC Midwest developed the Proposed Route by reviewing data, meeting with stakeholders, and performing broad environmental and engineering analyses on the Project Study Area.

In general, the Proposed Route was developed by considering the following:

- optimal locations for new station facilities to be built as a result of this Project, including land available for purchase for the new Forks Switching Station;
- existing ROWs (e.g., transmission lines, roads);
- availability of sufficient areas of land for purchase or ROW acquisition;

- avoidance of densely populated areas;
- avoidance of major environmental / natural features;
- maximizing transmission system efficiency and reliability; and
- minimizing the distance between Project facilities, and between individual Project components.

The Proposed Route is generally 1,500 feet wide and 8.5 miles in length. The Proposed Route is shown in Map 1. The width of the Proposed Route provides flexibility in the routing process to take advantage of practical routing opportunities and to promote the avoidance of routing constraints.

#### **4.2.3 Public Participation and Stakeholder Involvement in the Process**

The Project Study Area was presented to the public at an open house in January 2024. In addition, individual Tribal, local, state, and federal agencies were introduced to the Project via written correspondence and in-person meetings during the summer and fall of 2023. These communications provided information about the Project to key stakeholders and allowed them to provide comments that would be used in the next steps of the routing process. See Chapter 7.0 for a summary of public and agency comments.

### **4.3 ROUTE REFINEMENT AND ANALYSIS**

Based on feedback from stakeholders and the public, as well as technical guidelines, routing constraints, and routing opportunities, ITC Midwest identified a single Proposed Route as identified in Map 1. The Proposed Route maximizes the need for Project proximity to existing and proposed facilities. The Proposed Route includes land owned in fee by ITC Midwest for the Forks Switching Station and easements acquired for transmission line ROW, while avoiding Routing Constraints to the extent practicable.

## **5.0 ENGINEERING, OPERATIONAL DESIGN, CONSTRUCTION, RESTORATION, MAINTENANCE, AND ROW ACQUISITION**

Design and construction of a transmission line and associated facilities occurs through multiple stages, including transmission line design; identification of existing ROW; ROW acquisition; construction; restoration; and operation and maintenance. Each stage is discussed in further detail in the sections that follow.

### **5.1 PROPERTY ACQUISITION AND WIDTH OF ROW REQUIRED**

#### **5.1.1 Transmission Line ROW Width and Acquisition**

The Project will be constructed almost entirely within ROW to be acquired for the Project and will parallel existing road ROW.

After a route permit is issued, ITC Midwest will evaluate what land rights are needed for the Project. Then, ITC Midwest land agents will work directly with individual landowners to acquire the necessary easements for the Project. At a minimum, the Project will require a total permanent

ROW width of 100 feet (typically 50 feet on each side of the transmission centerline). As stated in Section 1.5, the Project will be sited on private land except where it crosses road ROWs, and the alignment will typically be set back approximately 5 to 8 feet from road ROWs.

While easement negotiations will not formally begin until after the Commission approves a route, ITC Midwest will continue to engage with landowners throughout the permitting process to answer any questions they may have regarding the easement process or the Project.

During any necessary formal land rights acquisition, landowners are given a copy of the Route Permit, the transmission line easement, offer of compensation, information on the Project schedule, construction practices, vegetation removal, and damage settlement. Additional information may also be given to each landowner regarding preliminary pole placement (if available at that time), structure design or photos, and power line safety. ITC Midwest will respond to any comments or questions landowners may have, including those with respect to the transmission line construction practices or operations of the transmission line.

In addition to permanent easements necessary for the construction of the line, agreements may be obtained from certain landowners for temporary construction or staging areas for storage of poles, vehicles, or other related items.

As part of early transmission design work, ITC Midwest will need to complete preliminary survey work and may need to acquire some soil characteristics data. ITC Midwest will notify landowners in the event site access for soil borings is required to determine soil suitability in areas where special transmission structure design may be required.

### **5.1.2 Transmission Structure Design and ROW Requirements**

Transmission structure design and the ROW requirements are discussed in Section 2 above. A schematic of typical structures is provided on Figure 2.2-1 above.

### **5.1.3 Switching Station**

Land for the Forks Switching Station will be purchased in fee simple by ITC Midwest. The final area and design of the station will be determined after approval of the Route Permit, but the anticipated dimensions are approximately 375 feet by 325 feet.

## **5.2 PROJECT SCHEDULE AND SEQUENCING, CONSTRUCTION, MITIGATION AND RESTORATION PRACTICES, INCLUDING WORKFORCE REQUIRED**

### **5.2.1 Transmission Line**

As described further below, construction will follow ITC Midwest's standard construction and mitigation best practices. Construction typically occurs as follows:

- Surveying and staking the ROW;
- ROW clearing and preparation;
- Grading/filling, as needed;
- Installation of foundations;
- Installation of poles and related equipment;

- Conductor stringing; and
- Installation of any required aerial markers.

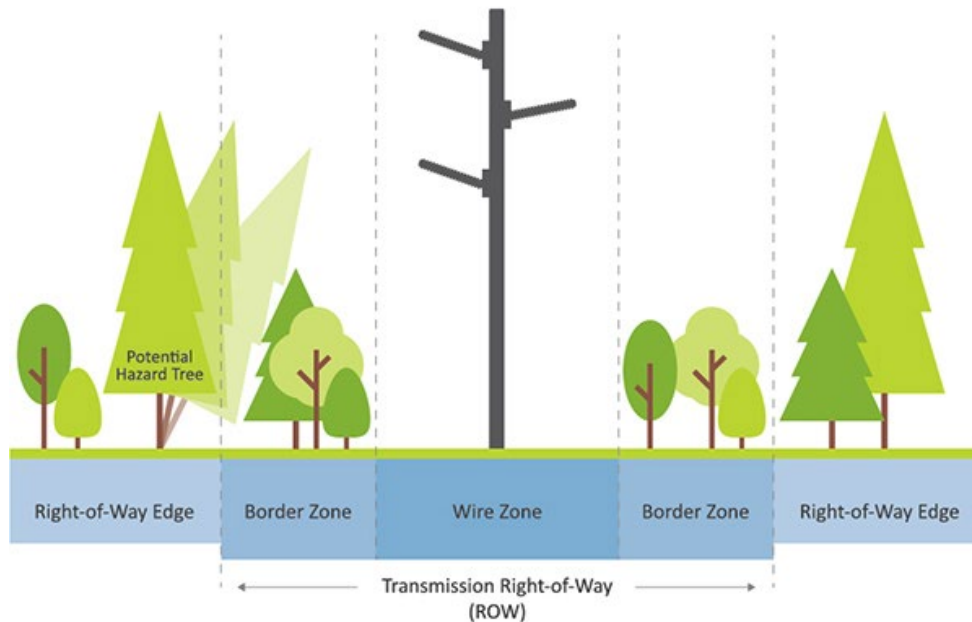
Procedures to be used for construction of the transmission line are discussed below. Equipment used in the transmission line construction process includes backhoes, cranes, boom trucks, and assorted small vehicles. Small grading equipment will also be used at the switching station.

After land rights have been secured and prior to any construction activities starting, landowners will be notified regarding the Project schedule and other related construction activities.

The first phase of the transmission line construction activities involves survey staking of the transmission line centerline and/or pole locations, followed by removal of trees and other vegetation from the ROW. ITC Midwest uses an integrated vegetation management plan that incorporates a wire/border zone practice for ROW clearing and maintenance. As a general practice, low-growing brush or tree species are allowable at the outer limits (the “border zone”) of the easement area. Taller tree species that endanger the safe and reliable operation of the transmission facility will be removed. In developed areas and to the extent practical, existing low-growing vegetation that will not pose a threat to the transmission facility or impede construction or maintenance may remain in the border zone, as agreed to during easement negotiations. The area below the outer conductors plus 10 to 15 feet (the “wire zone” or “clear zone”) is cleared of all shrubs and trees to ensure maintenance trucks can access the line and no vegetation interferes with the safe operation of the transmission line. Due to the nature of the Proposed Route (open land and cultivated fields), very little tree trimming, or removal is anticipated.

The National Electrical Safety Code (NESC) states that “vegetation that may damage ungrounded supply conductors should be pruned or removed.” Trees beyond the easement area that are in danger of falling into the energized transmission line, that could grow into the wire zone, or are otherwise deemed to be a hazard to the safe operation of the line (“danger trees”) may be removed or trimmed to eliminate the hazard as shown on Figure 5.2-1 below, if allowed by the terms in the easement. Danger trees generally are those that are dead, diseased, weak, or leaning towards the energized conductors. Tree trimming may be possible to minimize tree removal based on negotiations with individual landowners.

**Figure 5.2-1 – Standard Vegetation Management Practices**



All materials resulting from clearing operations will either be chipped on site and spread on the ROW, stacked in the ROW for use by the property owner, or removed and disposed of otherwise as agreed to with the property owner during easement negotiations or in accordance with agency requirements.

The final survey staking of pole locations may again occur after the vegetation has been removed and just prior to structure installation.

The second phase of construction will involve structure installation and stringing of conductor wire. During this phase, existing underground utilities are identified along the route through the required Gopher State One Call process.

If temporary removal or relocation of fences is necessary, installation of temporary or permanent gates will be coordinated with the landowner. Depending on the timing of construction, the ROW agent may work with the property owner for early harvest of crops, where possible, with compensation to be paid for any actual crop losses. During the construction process, it may be necessary for the property owner to remove or relocate equipment and livestock from the ROW. Compensation related to these activities will be discussed with the landowner during easement negotiations.

Transmission line structures are generally designed for installation at existing grades. Therefore, structure sites will not be graded or leveled unless it is necessary to provide a reasonably level area for construction access and activities. For example, if vehicles or installation equipment cannot safely access or perform construction operations properly near the structure, minor grading of the immediate terrain may be necessary.

ITC Midwest will employ standard construction and mitigation practices as well as industry-specific best management practices (BMPs). BMPs address ROW clearing, erecting

transmission line structures, and stringing transmission lines. BMPs for each specific project are based on the proposed schedules for activities, prohibitions, maintenance guidelines, inspection procedures, and other practices. In some circumstances, these activities, such as schedules, are modified to incorporate BMP installation that will assist in minimizing impacts to sensitive environments. Any contractors involved in construction of the transmission line will adhere to these BMP requirements.

Most of the proposed structures will be steel poles, which may be directly embedded by augering a hole, typically 10 to 15 feet deep and 3 to 5 feet in diameter for each pole, installed on a vibratory caisson foundation, or set on a concrete foundation. The concrete foundations will be approximately 6 to 9 feet in diameter and generally are exposed 1 foot above the existing ground level. Any excess soil from the excavation will be spread and leveled near the structure or removed from the site if requested by the property owner or regulatory agency. Concrete trucks are used to bring the concrete in from a local concrete batch plant.

After a direct-embedded pole is set into the hole, the void space is backfilled with crushed rock. Based on typical soil types in Minnesota, it is anticipated that the 80-foot above ground pole would be buried approximately 15 feet into the ground. In poor soil conditions (e.g., peat, marl, soft clay, or loose sand) a galvanized steel culvert is sometimes installed vertically with the structure set inside.

After a number of proposed structures have been erected, ITC Midwest will begin to install the shield wire and conductors by establishing stringing setup areas within the ROW. These stringing setup areas are located at deadend structures along a project route and occupy approximately 15,000 square feet for linear segments of the line and approximately 30,000 square feet for angled segments of the line. Conductor stringing operations require brief access to each structure to secure the conductor wire and shield wire once the final sag is established. Temporary guard or clearance structures are installed, as needed, over existing distribution or communication lines, streets, roads, highways, railways, or other obstructions after any necessary notifications are made or permits obtained. This ensures that conductors will not obstruct traffic or contact existing energized conductors or other cables. In addition, the conductors are protected from damage.

### **5.2.2 Switching Station**

The final switching station fence line will include an area of approximately 122,000 square feet.

The site will be surveyed for initial grading work. A Gopher State One-Call utility location will be completed. Once the initial grading is completed, the site will be re-surveyed to establish equipment and structure locations.

The footprint for the switching station typically includes installing a layer of sand and a layer of compacted class 5 aggregate as a base material. Excavation or drilling will be completed as necessary for concrete foundations and piers to support the station equipment, and concrete will be poured for the foundations or piers.

Buildings, structural rigid metal conductors called buswork, breakers, fencing, necessary switches and control equipment, and the transmission line structures for the new 161 kV line will be erected. Once the majority of the equipment has been erected, the station footprint is topped with 4 to 6 inches of crushed rock.



A short outage will be needed to connect the existing 161 kV line to the new Forks Switching Station. Any and all outages would be coordinated through Midcontinent Independent Systems Operator (MISO) to mitigate potential impacts to load or generation. MISO ensures that no other planned outages during the same time frame would negatively impact system reliability, evaluating and planning of switching within the transmission system to enhance reliability of the system, and if necessary, scheduling the outage during low demand periods or low generation output periods.

All construction will be completed in accordance with state, NESC, and ITC Midwest construction standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, erection of power poles (to connect the line to the substation) and stringing of transmission line conductors.

### **5.2.3 Workforce Required**

Construction of the Project will be performed using 3 crews, totaling 14 workers, with 1 general foreman.

## **5.3 RESTORATION PROCEDURES**

Disturbed areas are restored to their original condition to the maximum extent practicable, or as negotiated with the landowner.

Post-construction reclamation activities will include removing and disposing of debris, removing all temporary facilities (including staging and laydown areas), employing appropriate erosion control measures, reseeding areas disturbed by construction activities with vegetation similar to that which was removed with a seed mixture certified as free of noxious or invasive weeds, and restoring the areas to their original condition to the extent possible. In cases where soil compaction has occurred, the construction crew or a restoration contractor uses various methods to alleviate the compaction, or as negotiated with landowners.

The ROW agent will contact landowners after construction is complete to determine if the cleanup measures have been to their satisfaction, and if any other damage may have occurred. If damage has occurred to crops, fences or the property, ITC Midwest will compensate the landowner. In some cases, an outside contractor may be hired to restore the damaged property as near as possible to its original condition.

## **5.4 OPERATIONS AND MAINTENANCE PRACTICES**

Access to the ROW of a completed transmission line is required to perform periodic inspections, conduct maintenance, and repair damage. Regular maintenance and inspections will be performed during the life of the transmission line to ensure its continued integrity. Generally, ITC Midwest will inspect the condition of the transmission line and structures once per year. Inspections will be limited to the ROW and to areas where off-ROW access is required due to ROW obstructions or terrain impediments. If problems are found during inspection, repairs will be performed and property restoration will occur, or the landowner will be provided reasonable compensation for any damage to the property.

The ROW will be managed to remove vegetation that interferes with the operation and maintenance of the transmission line. Shrubs that will not interfere with the safe operation or

accessing and traversing the ROW of the transmission line will be allowed to reestablish in the ROW. ITC Midwest’s practice generally provides for the inspection of 161 kV transmission lines every three years to determine if clearing is required. ROW clearing practices include a combination of mechanical and hand clearing, along with herbicide application (where allowed), to remove or control vegetation growth.

The estimated annual cost of ROW maintenance and operation and maintenance of ITC Midwest’s transmission lines (69 kV to 500 kV) in Minnesota currently averages about \$2,000 per mile. Actual transmission line specific maintenance costs will depend on factors including the environmental setting, the amount of vegetation management necessary, storm damage occurrences, structure types, and the age of the line.

**5.4.1 Workforce Required**

Operations and maintenance of the transmission line and switching station will be performed by the existing local ITC Midwest workforce based in Lakefield, Minnesota.

**6.0 ENVIRONMENTAL ANALYSIS OF ROUTE**

This portion of the RPA provides a description of the human and environmental resources in the Project area, potential impacts to these resources, and any proposed mitigative measures. The Project Study Area and Proposed Route are shown in Figure 1.5-1 above.

**6.1 ENVIRONMENTAL SETTING**

The Proposed Route is in Ewington and Rost townships in Jackson County, Minnesota. Table 6.1-1 below provides the township, range, and sections of areas crossed by the Proposed Route.

TABLE 6.1-1		
Project Location		
Township	Range	Section(s)
102N	37W	26, 27, 28, 29, 30, 31, 32, 33, 34, 35
102N	38W	22, 23, 24, 25, 26, 27, 35, 36

The Project Study Area lies within the Prairie Parkland Province, as defined by the Ecological Classification System of Minnesota, and more specifically the North Central Glaciated Plains Section and the Coteau Moraines subsection (MNDNR 2024a). The Minnesota Department of Natural Resources (MNDNR) describes the Coteau Moraines subsection as:

The southwestern boundary of this subsection occurs in an area of transition from shallow deposits of windblown silt (loess) over glacial till to deeper deposits of loess. The northeastern boundary is marked by a steep escarpment which becomes less pronounced to the south.

This subsection is part of a high glacial landform occupying Southwestern Minnesota, Southeastern South Dakota, and Northwestern Iowa. It is topped by Buffalo Ridge (1995 feet above sea level) in northern Pipestone County. The high elevation is caused by thick deposits of pre-Wisconsin age glacial till (up to 800

feet thick). There are two distinct parts to the subsection, the middle Coteau, and the outer Coteau.

The environmental setting within several miles of the Project Study Area includes open agricultural areas, scattered small, forested areas, rural residential development, and hydrologic features, including streams, wetlands, and small ponds.

There are existing utilities within the Project Study Area, including the Heron Lake to Miloma 69 kV line, owned and operated by Great River Energy; the Dickinson County – Lakefield Junction 161 kV transmission line owned and operated by ITC Midwest; and a Northern Natural Gas pipeline (see Map 2 in Appendix B). There are also county highways and township roads throughout the Project Study Area (see Section 6.2.8 below).

## 6.2 HUMAN SETTLEMENT

### 6.2.1 Displacement

#### 6.2.1.1 Existing Environment

No displacement of residential homes, structures, or businesses will occur as a result of the Project. The NESC and ITC Midwest standards require certain clearances between transmission line structures and buildings or structures within the ROW for safe operation of the proposed transmission line. The Proposed Route provides sufficient design flexibility and distances from existing homes and structures for a transmission line design that achieves the requisite clearances.

Based on aerial photography and site visits by ITC Midwest and Merjent, no residences or outbuildings are located within 50 feet of the proposed centerline as shown in Table 6.2.1-1 below and Map 3 in Appendix B. No businesses are present within 200 feet of the proposed centerline.

TABLE 6.2.1-1					
Building Distances from Proposed Centerline					
Building Type	0-50 feet	50-100 feet	100-150 feet	150-200 feet	Total
Home	0	0	1	2	3
Business	0	0	0	0	0
Outbuilding	0	0	2	6	8
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>8</b>	<b>11</b>

#### 6.2.1.2 Impacts on Displacement

No residences or businesses will be displaced by the Project. The Project will be designed in compliance with local, state, NESC, and ITC Midwest standards regarding clearance to buildings (including residences), strength of materials, and ROW widths. ITC Midwest will work with landowners to address alignment adjustments or pole placement, as necessary.

### **6.2.1.3 Mitigation**

No residences or businesses are anticipated to be displaced by the Project; therefore, no mitigation is proposed.

## **6.2.2 Public Health and Safety**

### **6.2.2.1 Existing Environment**

The Project will be designed in compliance with NESC requirements regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and ROW widths. Safeguards will be implemented for construction and operation of the Project transmission line and Forks Switching Station. Construction and/or contract crews will comply with state and NESC standards regarding installation of facilities and standard construction practices.

ITC Midwest's established safety procedures, as well as industry safety procedures, will be followed during construction of the Project and after installation of the transmission line, including clear signage during all construction activities. The proposed HVTL will be equipped with switching devices.

### **6.2.2.2 Impacts on Public Health and Safety**

No adverse impacts to public health and safety are anticipated as a result of the Project. ITC Midwest will ensure that safety requirements are met during construction and operation of the transmission line and proposed Forks Switching Station. During active construction, measures will be made to ensure the safety of local residents, including but not limited to signage where active construction is occurring, flaggers at roads, and barriers around active construction zones. Additionally, when crossing roads during stringing operations, guard structures will be used to provide safeguards for the public.

### **6.2.2.3 Mitigation**

No negative impacts to public health and safety are anticipated; therefore, no mitigation is proposed.

For additional analysis see Section 6.9, Additional Human and Environmental Impact Considerations.

## **6.2.3 Audible Noise**

Noise is generally considered to be unwanted sound that may be an annoyance, loud or disruptive to hearing. It may be comprised of a variety of sounds of different intensities across the entire frequency spectrum. Noise is measured in units of decibels on the A-weighted scale (dBA). Because human hearing is not equally sensitive to all frequencies of sound, the most noticeable frequencies of sound are given more "weight" in most measurement schemes. The A-weighted decibel scale corresponds to the sensitivity range for human hearing. A noise level change of 3 dBA is barely perceptible to human hearing. A 5-dBA change in noise level, however, is clearly noticeable. A 10-dBA change in noise level is perceived as doubling (or halving) of noise loudness. For reference, Table 6.2.3-1 below shows noise levels in dBA associated with common, everyday sources, providing context for the Project noise levels discussed later in this section.

TABLE 6.2.3-1	
<b>Common Noise Sources and Levels</b>	
Common Indoor and Outdoor Noises	Sound Pressure Levels (dBA)
Rock Band	110
Jet Flyover	100
Gas Lawnmower	90
Food Blender	80
Vacuum Cleaner	70
Normal Speech	60
Quiet Urban Daytime	50
Quiet Urban Nighttime	40
Quiet Suburban Nighttime	30
Quiet Rural Nighttime	20
Broadcast Recording Studio	10
Threshold of Human Hearing	0

Source: Minnesota Pollution Control Agency (MPCA), 2015

The Minnesota Pollution Control Agency (MPCA) has established standards for the maximum noise allowable in certain areas based on the type of activities occurring in the area. Within the Proposed Route, the most limiting standard is 50 dBA (nighttime limit) in any residential land use location. The daytime and nighttime noise standards by Noise Area Classifications (NAC) are provided in Table 6.2.3-2 below (Minn. R. 7030.0040). Noise standards are expressed using the L50 and L10 statistical descriptors, which represent the range of permissible dBA within a one-hour period. The L50 noise level represents the level exceeded 50 percent of the time, or for 30 minutes in an hour. The L10 noise level represents the level exceeded 10 percent of the time, or for 6 minutes in an hour. NACs are categorized by the type of land use activities at a location and the sensitivity of those activities to noise. Residential-type activities, including homes; churches; camping and picnicking areas; public, health, and education services; and hotels are included in NAC-1. Commercial-type activities including transit terminals and retail, business, and government services are included in NAC-2. Industrial-type activities including manufacturing, fairgrounds and amusement parks, agriculture, and forestry activities are included in NAC-3. NAC 4 is for undeveloped or unused land, and there are no noise standards for these areas.

TABLE 6.2.3-2				
<b>MPCA Noise Limits by Noise Area Classification</b>				
Noise Area Classification	Daytime		Nighttime	
	L <sub>10</sub>	L <sub>50</sub>	L <sub>10</sub>	L <sub>50</sub>
1	65	60	55	50
2	70	65	70	65
3	80	75	80	75

Source: MPCA, 2015

### 6.2.3.1 Existing Environment

Common sound sources within a rural, agricultural environment such as the Project Study Area include, but are not limited to farm equipment such as tractors and combines; farm support

vehicles and equipment; grain handling, storage, and/or drying operations; traffic on surrounding roadways; birds; and wind rustling through the vegetation. Typically, the ambient acoustic environment of a rural or agriculturally oriented community has continuous sound levels ( $L_{eq}$ ), which is an energy-based time-averaged noise level, ranging from 30 dBA to 60 dBA. Rural residential areas have a typical daytime noise level of 40 dBA and a typical nighttime noise level of 34 dBA (American National Standards Institute, 2013).

### 6.2.3.2 Impacts from Audible Noise

Audible noise will occur as part of the construction and operation phases of the Project. Noise-sensitive land uses within the vicinity of the Project primarily include residential homes.

During construction, intermittent noise will be emitted by the construction vehicles and equipment, including pile drivers for installation of piers. These noise impacts will be temporary, and the amount of noise will vary based on what type of construction is occurring at the Project on a given day, and the distance from the receptor to the noise source. Table 6.2.3-3 below shows the typical sound pressure levels in dBA at 50 feet for various construction equipment (U.S. Department of Transportation Federal Highway Administration, 2006).

TABLE 6.2.3-3	
<b>Typical Sound Levels from Construction Equipment</b>	
Equipment	Max Sound Pressure Level 50 feet (dBA)
Backhoe	80
Compactor	82
Concrete Mixer	85
Dozer	85
Generator	81
Grader	85
Loader	85
Pile Driver (Impact)	101
Truck	88

Noise calculations were conducted using a desktop analysis to calculate Project sound levels at the edge of the ROW for the transmission line. As described below, predicted maximum total sound levels as a result of Project operation do not exceed the applicable nighttime limit of 50 dBA set forth in Minn. Admin. R. 7030.0040. Accordingly, minimal sound impacts, within regulatory limits, are expected from Project operation.

Project equipment and details are shown below in Table 6.2.3-4, along with overall A-weighted sound pressure levels. Levels represent the maximum sound output for Project components, which is at the source of the sound.

TABLE 6.2.3-4		
<b>Calculated L50 Audible Noise (dBA) for Proposed Project</b>		
Structure Type	Line Voltage	Edge of ROW L <sub>50</sub> Noise (dBA)
161 kV Single-Circuit Steel Monopole	161 kV	35.49

Noise calculations were conducted using a probabilistic desktop analysis for the Forks Switching Station. The station will not have a transformer, shunt reactor, or backup emergency generator sited permanently at the station. As a result, the only expected noises will be from: 1) the inconsistent, extremely short-term noise from planned switching or unplanned fault-clearing operations; and 2) any sounds from humans on-site, such as cars, doors, etc.

Three line positions will terminate at the new 161 kV switching station. In analyzing the number of planned switching events on the ITC Midwest 161 kV system, an average of 2.8 planned switching events have occurred per substation per year over the past five years. Analyzing unplanned switching events on the 161 kV system in ITC Midwest over the past 10 years has identified 0.3044 faults per line per year, which means 0.91 unplanned switching events can be anticipated to take place at the new Forks Switching Station per year. A total of 3.71 switching events can be anticipated at the Forks Switching Station per year. Switching requires three cycles during an unplanned event and 3+20+20 cycles during a planned event (circuit breaker plus two disconnect switches). ITC Midwest does not have measurements or vendor-provided specifications for audible noise produced by the circuit breaker or the disconnect switches, but field experience has described the results as similar to a .22 caliber rifle at worst case. This is roughly the equivalent of 140 dB at the source, conservatively, and will dissipate further from the source and will be very short in duration.

Humans will be on-site for planned switching, as well as bi-monthly inspections and any capital work. This means that standard vehicle noises and human conversation might exist during these visits.

From this analysis, the switching station noise is compliant with Minnesota noise requirements in that the occasions when noise may occur in excess of MPCA limits will be extremely rare and very limited in duration. In addition, the closest occupied residence is approximately 0.25 mile from the proposed site of the new Forks Switching Station. Therefore, no mitigation is required.

### **6.2.3.3 Mitigation**

During construction, the Project will generate a temporary increase in ambient noise levels in the vicinity of the Project that may exceed state noise standards. The Project will mitigate potential noise impacts by limiting construction to daylight hours and using construction equipment and vehicles with properly functioning mufflers and noise-control devices.

During operation, the Project will not generate an increase in ambient noise levels in the vicinity of the Project that exceed state noise standards; therefore, no operational mitigation measures are necessary.

## **6.2.4 Aesthetics**

### **6.2.4.1 Existing Environment**

The Project is generally surrounded by agricultural development and the easements acquired by ITC Midwest primarily follow existing road ROWs. There are four wind turbines east of the Proposed Route near Great River Energy's proposed Rost Substation. In addition, the Proposed Route is collocated with an existing 69 kV transmission line for approximately 0.86 mile, and a 161 kV transmission line is perpendicular to the Proposed Route (see Map 2 in Appendix B).

The proposed Forks Switching Station will be located southwest of the City of Lakefield, Minnesota. The proposed Forks Switching Station will be a new feature in the Project Study Area that will be visible off-site. Construction activities will be visible throughout the Proposed Route.

### 6.2.4.2 Impacts on Aesthetics

Since the Project will be constructed adjacent to existing county road ROWs, collocated with an existing 69 kV transmission line, and near an existing wind farm, the Project does not constitute a new use in the area and aesthetic impacts are anticipated to be minimal. The proposed Forks Switching Station will be visible from nearby public roads. The Proposed Route was designed in part to minimize the amount of tree clearing, which helps to minimize visual impacts.

### 6.2.4.3 Mitigation

ITC Midwest will work with landowners to identify aesthetic concerns related to the proposed transmission line and proposed Forks Switching Station.

## 6.2.5 Socioeconomics and Environmental Justice

### 6.2.5.1 Existing Environment

The Project Study Area is in Jackson County in southwest Minnesota. The socioeconomic setting of the Project Study Area was evaluated on a regional level comparing data from the State of Minnesota, Jackson County, and the cities of Worthington and Lakefield. Data compiled from U.S. Census Bureau QuickFacts are summarized in Table 6.2.5-1 below.

TABLE 6.2.5-1				
Socioeconomic Characteristics within the Project Study Area				
Location	Population 2010	Population 2020	Median Household Income	Population below poverty level (%)
State of Minnesota	5,303,925	5,706,494	\$84,313	9.6%
Jackson County	10,266	9,989	\$68,368	9.1%
City of Worthington	12,764	13,947	\$58,690	15.4%

Source: U.S. Census QuickFacts, downloaded April 24, 2024:  
<https://www.census.gov/quickfacts/fact/table/worthingtoncityminnesota,jacksoncountyminnesota,MN/PST045223>.

An environmental justice (EJ) analysis for the Project was completed using the methodology in Minn. Stat. § 216B.1691, subd. 1(e) (rev.2023), which provides:

Environmental justice area means an area in Minnesota that, based on the most recent data published by the United States Census Bureau, meets one or more of the following criteria:

- (1) 40 percent or more of the area's total population is nonwhite;
- (2) 35 percent or more of households in the area have an income that is at or below 200 percent of the federal poverty level;



- (3) 40 percent or more of the area's residents over the age of five have limited English proficiency; or
- (4) the area is located within Indian country, as defined in United State Code, title 18, section 1151.<sup>1</sup>

The Proposed Route and associated 100-foot-wide ROW intersects with Census Tract 4802 in Jackson County. Census Tract 4802 was analyzed for EJ areas consistent with the above referenced statute. For this analysis, census tracts are the best approximation of a geographic area where adverse impacts can occur from the Project. Jackson County was used as a reference population for the census tract.

ITC Midwest used MPCA's "Understanding Environmental Justice in Minnesota" web-based mapping tool by drawing the Proposed Route into the mapping tool to determine whether the Project intersects any census tracts with EJ populations based on the definitions above. It is important to note that MPCA's web-based tool accounts for a margin of error in determining EJ areas of concern.

According to the data provided in MPCA's web-based mapping tool, 7.3 percent of the population of Census Tract 4802 are people of color; 18.7 percent reported income less than the 200 percent of the federal poverty level; and 1.5 percent are reported as residents with limited English proficiency (MPCA, 2024a). Based on this data, Census Tract 4802 is not considered an EJ community under the definition provided in Minn. Stat. § 216B.1691, subd. 1(e). Additionally, the Proposed Route does not cross any areas located within "Indian country," as defined in 18 United States Code 1151.

Additionally, ITC Midwest conducted this EJ analysis in accordance with the U.S. Environmental Protection Agency (USEPA) Federal Interagency Working Group on Environmental Justice and National Environmental Policy Act (NEPA) Committee's publication, Promising Practices for EJ Methodologies in NEPA Reviews (Promising Practices) given that analyses in prior Route Permit Applications have used this methodology.

Using this methodology, ITC Midwest first used the USEPA's Environmental Justice Screening Tool (EJScreen) as an initial step to gather information regarding: minority and/or low-income populations; potential environmental quality issues; environmental and demographic indicators; and other important factors. The USEPA recommends that screening tools, such as EJScreen, be used for a "screening-level" look and a useful first step in understanding or highlighting locations that may require further review. EJScreen was used to evaluate the Proposed Route plus a 0.25-mile buffer. Using EJScreen, the communities in the Proposed Route are estimated to have 1 percent people of color and 16 percent low income (U.S. Census Bureau, 2024a).

According to Promising Practices, minority populations are those groups that include American Indian or Alaskan Native; Asian or Pacific Islander; Black, nor of Hispanic origin; or, Hispanic. Following the recommendations set forth in Promising Practices, the 50 percent and the meaningfully greater analysis methods were used to identify minority populations. Using this

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<sup>1</sup> Although this statute does not prescribe requirements for a route permit application, ITC employs this methodology here consistent with the methodology used by DOC-EERA in a recently issued EA. See Docket No. ET2/22-235.

methodology, minority populations are defined where either (a) the aggregate minority population of the block groups in the affected area exceeds 50 percent; or (b) the aggregate minority population in the block group affected is 10 percent higher than the aggregate minority population percentage in the county. The guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using Promising Practices’ low-income threshold criteria method, low-income populations are identified as block groups where the percent of low-income population in the identified block group is equal to or greater than that of the county. Jackson County is the comparable reference community to ensure that any affected EJ communities are properly identified.

Table 6.2.5-2 below identifies the minority populations by race and ethnicity and low-income populations within Minnesota, Jackson County, and Census Tract 4802, Block Group 2, crossed by the Proposed Route. U.S. Census 2022 American Community Survey 5-Year Estimate Data File# B17017 and File# B03002 for the race, ethnicity, and poverty data were analyzed at the block group level.

TABLE 6.2.5-2		
<b>Minority Populations by Race and Ethnicity and Low-Income Populations within the Project Area</b>		
State/County/Census Block Group	% Total Minority <sup>a</sup>	% Below Poverty Level
Minnesota	22.3%	9.4%
Jackson County	9.0%	10.0%
Census Tract 4802, Block Group 2	2.0%	2.5%

<sup>a</sup> "Minority" refers to people who reported their ethnicity and race as something other than White, non-Hispanic.  
 Source: U.S. Census Bureau, 2022a; 2022b

As presented in Table 6.2.5-2 above, based on the analysis, the block group crossed by the Proposed Route is not an EJ community.

### 6.2.5.2 Impacts on Socioeconomics

Local and regional impacts to socioeconomics will be minor due to the short-term timeframe of construction of the Project. Revenue may increase for local businesses from purchases made by utility personnel and contractors during construction. Long-term societal benefits of the Project will include increased property tax revenue for the County in which the Project is located and continued clean, reliable electric service to local customers supporting the local economy.

During the construction phase, activities will provide a seasonal influx of additional dollars into the communities with labor procured from local employment resources and construction materials purchased from local vendors where practicable. Traffic impacts to local communities will be insignificant (see Section 6.2.8 below). Noise impacts associated with the Project will be temporary in nature and construction activities will generally be limited to daytime hours between 7 a.m. and 9 p.m. weekdays (see Section 6.2.3 above). Air quality impacts during construction are also anticipated to be minimal and temporary; no impacts to air quality are anticipated due to the operation of the Project (see Section 6.5.1 below). During construction, there may also be short-term positive impacts to the nearby communities. Potential increases in local revenue may occur for businesses, such as hotels, grocery stores, gas stations, and restaurants to support utility personnel and contractors.

As no areas of concern for EJ were found within the Project Study Area, this Project will not negatively impact minority groups or other groups/areas of concern.

### **6.2.5.3 Mitigation**

Because impacts to socioeconomics will be generally short-term and beneficial, no mitigation is proposed. There are no EJ communities impacted by the Project, so no mitigations for EJ communities are proposed.

## **6.2.6 Cultural Values**

### **6.2.6.1 Existing Environment**

Cultural values include those shared community attitudes expressed within a given area, where they provide a framework for community unity. The Project Study Area is in a rural setting with a local economy based on agriculture. Tourism and recreation opportunities exist through potential recreation on the Little Sioux River and a USFWS Waterfowl Production Area (WPA). Per the Jackson County website, a rural way of life and access to outdoor recreation are important cultural values for the area (Jackson County, 2022).

### **6.2.6.2 Impacts on Cultural Values**

The Project is not expected to conflict with the cultural values within the Project Study Area. The area is rural in nature with an economy based on agriculture and is anticipated to remain so during the operation of the Project. The Project will be constructed on privately-owned lands and therefore no public recreation or tourism will be affected. No commercial logging or mining currently happens on lands within the Proposed Route. None of these aspects of the culture of the area are anticipated to be significantly impacted or changed due to the construction and operation of the Project.

### **6.2.6.3 Mitigation**

No impacts on cultural values are expected, therefore no mitigation is proposed.

## **6.2.7 Recreation**

### **6.2.7.1 Existing Environment**

Recreational activities in Jackson County include hunting, biking, snowmobiling, hiking, camping, fishing, boating, and swimming. The Little Sioux River is located within the Project Study Area and may provide recreational opportunities, such as kayaking or canoeing. The USFWS Ulbricht WPA and several state-funded conservation easements are located within the Project Study Area (USFWS, 2023; see Map 5 in Appendix B). WPAs are part of the National Wildlife Refuge System and are owned, leased, or contain easements held by USFWS.

### **6.2.7.2 Impacts on Recreation**

Construction of the Project is not anticipated to disrupt nearby recreational activities. The Proposed Route crosses the Little Sioux River where the river flows through culverts beneath 770th Street. Recreational users would be required to exit Little Sioux River and reenter

downstream of 770th Street. In addition, the Little Sioux River will be spanned by the Project, so impacts to recreational users are not anticipated. The Little Sioux River is a Public Water Inventory (PWI) waterway; therefore, ITC Midwest will work with the MNDNR and other agencies to avoid and minimize impacts to the Little Sioux River. ITC Midwest will also secure a License to Cross Public Waters from the MNDNR for all Minnesota PWI waterway crossings prior to Project construction.

The USFWS Ulbricht WPA is located outside of the Proposed Route and therefore impacts to WPAs are not anticipated.

### 6.2.7.3 Mitigation

No impacts to recreation are anticipated; therefore, no mitigation is proposed. As stated above, ITC Midwest will work with the MNDNR and other agencies to avoid and minimize impacts to the PWI waterway. For instance, ITC Midwest will add swan diverters to all spans that cross Minnesota public waters, including one span on either side of each crossing.

## 6.2.8 Public Services and Transportation

### 6.2.8.1 Existing Environment

The Proposed Route is located in a rural area containing agricultural fields and rural residential houses, with typical public services, such as waste collection, cable, electric, telephone, water, and natural gas utilities, septic systems, wells, Emergency Medical Services (EMS), and law enforcement.

Roads crossed by the Proposed Route are provided in Table 6.2.8-1 below.

TABLE 6.2.8-1			
Roads Crossed by Proposed Route			
Road Name	Jurisdiction	Parallel/Perpendicular	Traffic Volume (SEQ #/Year)
350 <sup>th</sup> Avenue	County State Aid Highway	Parallel	95 (24655/2016)
780 <sup>th</sup> Street	County State Aid Highway	Parallel & Perpendicular	430 (24625/2012)
360 <sup>th</sup> Avenue	Township	Parallel	No Data
770 <sup>th</sup> Street	Township	Parallel & Perpendicular	No Data
370 <sup>th</sup> Avenue	Township	Perpendicular	No Data
380 <sup>th</sup> Avenue	Township	Perpendicular	No Data
390 <sup>th</sup> Avenue	Township	Perpendicular	No Data
400 <sup>th</sup> Avenue	County State Aid Highway	Perpendicular	255 (24626/2016)
410 <sup>th</sup> Avenue	Township	Perpendicular	No Data

### **6.2.8.2 Impacts on Public Services and Transportation**

ITC Midwest will coordinate with the Minnesota Department of Transportation (MnDOT) to confirm that construction of the Project will not interfere with routine roadway maintenance. Temporary, infrequent localized traffic delays may occur when heavy equipment enters and exits local roadways near the Project or equipment and materials are delivered to the Project construction site. To minimize traffic impacts, ITC Midwest will coordinate with local road authorities (county and townships) to schedule large material and or equipment deliveries to avoid periods when traffic volumes are high whenever practical. Traffic control barriers and warning devices will also be used when appropriate. Safety requirements to maintain the flow of public traffic will be followed at all times and construction operations will be conducted to offer the least obstruction and inconvenience to public travel as practicable.

The Proposed Route will not disturb any existing utilities or other public services. No impacts to public services are anticipated.

### **6.2.8.3 Mitigation**

Since the coordination and safety procedures outlined above will be implemented during Project construction and significant impacts to public services and transportation during and after Project construction are not expected, no mitigation is proposed.

## **6.3 LAND-BASED ECONOMIES**

### **6.3.1 Agriculture**

#### **6.3.1.1 Existing Environment**

Most of the land within Jackson County is used for agriculture. The U.S. Department of Agriculture (USDA) 2022 Census of Agriculture for Jackson County indicates that there are 845 farms within the county, which is an increase of 6 percent from 2017. The average farm size in Jackson County is 455 acres and there is a total of 384,337 acres of farmland in the county. In 2022, the total market value of products sold from farms in Jackson County was over \$501 million, which is a 59 percent increase from 2017 (USDA, 2022).

Prime farmland is defined by the Natural Resources Conservation Service (NRCS) as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, and oilseed crops, and is also available for these uses. The Proposed Route includes approximately 1,530 acres of area designated as prime farmland, which is comprised of approximately 878 acres of prime farmland, 31 acres of farmland of statewide importance, and 621 acres of prime farmland if drained. The proposed Forks Rost Switching Station includes approximately 11.8 acres of area designated as prime farmland, which is comprised of approximately 5.5 acres of prime farmland and 6.3 acres of prime farmland if drained.

The NRCS classifies farmland of statewide importance as lands other than prime farmland that are used for production of specific high-value food and fiber crops, such as tree nuts, fruits, and vegetables. Farmland of statewide importance is similar to prime farmland, but with minor shortcomings such as greater slopes or less ability to store soil moisture. The Proposed Route includes approximately 31 acres of land classified as farmland of statewide importance.

### **6.3.1.2 Impacts on Agriculture**

Some agricultural land may be temporarily removed from production during construction of the Project. Repeat access to structure locations during construction will be required. Operation of construction vehicles, such as cranes, backhoes, boom trucks, and others, may cause rutting or soil compaction. Total acreage of potential temporary impacts depends on the final design.

Permanent impacts include agricultural land conversion to maintain buffers around proposed structures. Based on the preliminary Project design, the substation will permanently impact up to 11.8 acres of land previously used for agriculture and each transmission line pole will have a diameter of 6 to 8 feet for direct embed, including vibratory caissons, and 8 to 10 feet for drilled pier foundations, which will impact agricultural land. Total acreage of potential permanent impacts depends on the final design.

### **6.3.1.3 Mitigation**

ITC Midwest will work with landowners to minimize impacts to agricultural activities. The following mitigation measures are proposed:

- To the extent practicable, construction will be scheduled during periods when agricultural activities will be minimally affected.
- Local roads will be used as much as possible to move equipment and install structures. If local roads cannot be used, equipment will be limited to the ROW to the full extent. If movement outside the ROW is required, permission from landowner's will be obtained.
- All temporary workspace required to construct the Proposed Route will be leased from landowners through agreements.
- All material and debris during construction will be removed and properly disposed of.
- Landowners will be compensated for any crop damage, crop loss, and/or soil compaction.
- All areas disturbed during construction will be repaired and restored to pre-construction conditions. In addition to agricultural fields, this may include fences, gates, ditches, terraces, roads, or other features.

## **6.3.2 Forestry**

### **6.3.2.1 Existing Environment**

Based on aerial photographs, desktop review, and field observations, there are no commercial forestry activities within the Proposed Route.

### **6.3.2.2 Impacts on Forestry**

Because there are no commercial forestry operations within the Proposed Route, the Project will have no impact on commercial forestry operations.

### **6.3.2.3 Mitigation**

No impact to commercial forestry operations is anticipated; therefore, no mitigation is proposed.

## **6.3.3 Tourism**

### **6.3.3.1 Existing Environment**

Tourism activities within Jackson County include farm and home shows, town and country days, the Jackson County Fair, several golf events, and holiday parades and fireworks. Tourism destinations include Fort Belmont; Jackson Speedway; the Historic State Theatre; Jackson County Historical Society Museum; and the Round Lake Vineyards and Winery (Jackson Chamber of Commerce, 2024).

Based on aerial photographs and the Jackson County Park Location Map, no City, County, or State Parks, or State Recreation Areas exist within the Project Study Area (Jackson County, 2015).

Aquatic recreation and tourism activities are discussed in detail in Section 6.2.7 above.

### **6.3.3.2 Impacts on Tourism**

The Proposed Route does not cross any areas that host tourism activities or tourism destinations, and the proposed activities would not preclude tourism activities or destinations.

### **6.3.3.3 Mitigation**

No impacts on tourism are anticipated; therefore, no mitigation is proposed.

## **6.3.4 Mining**

### **6.3.4.1 Existing Environment**

Based on aerial photographs, and data from the Aggregate Source Information System (MnDOT, 2023), four mine/gravel pits are located within the Project Study Area but outside of the Proposed Route (see Map 7 in Appendix B). These mines/gravel pits are discussed in detail below.

Mine 32038 is a commercial aggregate source, which indicates a source of aggregate that is being tested and tracked by MnDOT for potential use. Aerial photography (MnDOT, 2023) shows no activity or disturbance within the record's location.

Mine 32003 is an inactive aggregate source, which indicates a source that is either depleted or at least unavailable for future use. If future circumstances make such sources available, the status may be changed. Aerial photography (MnDOT, 2023) shows surface disturbance near the record's location.

Mine 32043 is an inactive aggregate source, which indicates a source that is either depleted or at least unavailable for future use (If future circumstances make such sources available, the status may be changed). Aerial photography (MnDOT, 2023) shows surface disturbance near the record's location.

Mine 32065 is a commercial aggregate source, which indicates a source of aggregate that is being tested and tracked by MnDOT for potential use. Aerial photography (MnDOT, 2023) shows surface disturbance to the northwest of the record location.

#### **6.3.4.2 Impacts on Mining**

No mining operations are present within the Proposed Route; therefore, impacts are not anticipated.

#### **6.3.4.3 Mitigation**

No impacts to mining are anticipated; therefore, no mitigation is proposed.

### **6.4 ARCHAEOLOGICAL AND HISTORIC RESOURCES**

#### **6.4.1 Existing Environment**

Information on known archaeological sites and historic structures was gathered in March 2024 from the Minnesota State Historic Preservation Office (SHPO) and the Minnesota Office of the State Archaeologist (OSA), both in St. Paul, Minnesota. The desktop investigation and literature review queried the entire Project Study Area. The sources of the SHPO and OSA datasets include previous professional cultural resources surveys and otherwise reported archaeological sites, historic structures (also known as architectural history sites), and historic cemeteries. Sites in these datasets typically include, but are not limited to, Native American mounds and earthworks, prehistoric burial grounds and habitation sites, remains of Euro American home- and farmsteads, logging camps or other industrial land use, and standing buildings, bridges, or other features of the built environment. Sites not included in these datasets may include locations known to Native Americans to have cultural importance.

##### **6.4.1.1 Previously Recorded Archaeological Sites**

There is one previously recorded archaeological site in the Project Study Area. Site 21JK0041 is located approximately 1.95 miles to the south-southwest of the Proposed Route, in Section 2 of Township 101 North, Range 38 West. The site consists of a prehistoric lithic scatter that remains unevaluated for listing to the National Register of Historic Places (NRHP). The overall density of previously documented sites in the Project Boundary is low and potentially reflects the lack of previous survey.

##### **6.4.1.2 OSA Historical Cemeteries**

According to the Historical Cemeteries layer provided on the OSA Portal, there are three historical cemeteries located within the Project Study Area (see Table 6.4.1-1 below). Review of modern aerial imagery shows these as platted cemeteries, suggesting low potential to encounter unmarked burials. These cemeteries do not intersect the Proposed Route and will not be impacted by construction.



TABLE 6.4.1-1				
OSA Historical Cemeteries within the Study Area				
Cemetery Name	Cemetery ID	Township	Range	Section
St. Paul's Cemetery/Old Lutheran Cemetery/Old Rost Cemetery	21293	102N	37W	28
Grace Church Cemetery	21280	102N	38W	22
Ewington Township Cemetery	21281	102N	38W	28

### 6.4.1.3 Previously Recorded Historic Resources

Results of the SHPO data request and Minnesota's Statewide Historic Inventory Portal review identified 14 recorded historic architectural resources within the Project Study Area (see Table 6.4.1-2 below). These structures consist of bridges and culverts. All 13 structures are outside of the Proposed Route.

TABLE 6.4.1-2							
Previously Recorded Architectural Structures within the Study Area							
Inventory Number	Property Name	Township	Range	Sections	Property Category	Property Type	NRHP Status
JK-EWT-001	Ewington Town Hall	102N	38W	16	Government	Township Hall	Unevaluated
JK-EWT-002	Grace Lutheran Church	102N	38W	22	Religion	Religious Facility	Unevaluated
JK-RST-004	Rost Town Hall	102N	37W	21	Government	Township Hall	Unevaluated
JK-RST-005	Richard Voehl Farmhouse	102N	37W	23	Domestic	Residence	Unevaluated
JK-RST-006	Richard Voehl Barn	102N	37W	23	Agriculture	Barn (Gable)	Unevaluated
JK-RST-007	Richard Voehl Granary	102N	37W	23	Agriculture	Outbuilding	Unevaluated
JK-RST-008	Richard Voehl Corncrib	102N	37W	23	Agriculture	Outbuilding	Unevaluated
JK-RST-009	Richard Voehl Metal-Sided Barn	102N	37W	23	Agriculture	Barn	Unevaluated
JK-RST-010	Bridge No 0593	102N	37W	16	Transportation	Bridge	Unevaluated

### 6.4.1.4 Archaeological Survey

The Project is under the jurisdiction of the Commission and applicable state and local laws. If potential impacts to historic properties are indicated through agency consultations, a Phase I archaeological survey where direct impacts are proposed may be conducted prior to construction. Archaeological work, if performed, would comply with the *State Archaeologist's Manual for Archaeological Projects in Minnesota* (Anfinson, 2011) and the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (National Park Service, 1983).

### 6.4.2 Impacts

As stated above, the closest previously recorded archaeological site is almost 2 miles away from the proposed route; three historic cemeteries are not crossed by the proposed Project; and no previously recorded architectural structures are crossed by the proposed route. Based on the desktop review, no recorded sites eligible for inclusion on the NRHP would be adversely affected

by Project construction, operations, or maintenance. The Proposed Route was not previously surveyed and is located almost entirely in areas that have been previously disturbed by farming activities and transportation corridors. No previously recorded archaeological sites have been identified in the Project Study Area.

### **6.4.3 Mitigation**

Should an NRHP-eligible site be identified during construction, ITC Midwest will coordinate with SHPO and OSA to avoid, minimize, or mitigate adverse effects. Such efforts may be achieved through, but not limited to, Project design changes (avoidance), engineering or construction controls (minimization), or data recovery excavation (mitigation). While not expected, in the event archaeological materials and/or human remains are identified during Project construction activities, such activities will cease in the immediate area, and a professional archaeologist will be contacted to investigate the find. In the event of a confirmed archaeological site, steps will be taken to record and evaluate the site in consultation with SHPO and the OSA. If the site is determined to be eligible for inclusion on the NRHP, consultation among these parties will determine any procedures for avoidance, minimization, or mitigation. Should human remains be identified, the procedures as outlined in United States Code, title 25, section 3001 “Native American Graves and Repatriation Act” and Minnesota Statutes Chapter 307, “Private Cemeteries” will be followed in coordination with the OSA and Minnesota Indian Affairs Council.

## **6.5 NATURAL ENVIRONMENT**

### **6.5.1 Air Quality**

Section 109(b) of the Clean Air Act (CAA) requires that the USEPA establish National Ambient Air Quality Standards (NAAQS) requisite to protect public health and welfare (40 Code of Federal Regulations Part 50). The CAA identifies two classes of NAAQS: primary standards, which are limits set to protect the public health of the most sensitive populations, such as asthmatics, children, and the elderly; and, secondary standards, which are limits set to protect public welfare, such as protection against visibility impairment or damage to vegetation, wildlife and structures. The USEPA has promulgated NAAQS for six criteria pollutants: ozone (O<sub>3</sub>), particulate matter (PM) less than 10 microns in diameter (PM<sub>10</sub>), PM less than 2.5 microns in diameter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), and lead (Pb). Minnesota is in compliance with the primary and secondary NAAQS for all criteria pollutants except lead, which has one nonattainment area in Dakota County (USEPA, 2024; MPCA, 2024b).

In Minnesota, air quality is tracked using air quality monitoring stations across the State. The MPCA uses data from these monitors to calculate the Air Quality Index (AQI) on an hourly basis for O<sub>3</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, and CO. The pollutant with the highest AQI value for a particular hour sets the overall AQI for that hour. The AQI is used to categorize the air quality of a region as one of five levels of quality: good, moderate, unhealthy for sensitive groups, unhealthy, or very unhealthy (MPCA, 2024b).

#### **6.5.1.1 Existing Environment**

The air quality monitor located nearest to the Project is in Marshall, Minnesota, approximately 55 miles to the northwest. This station monitors O<sub>3</sub> and PM<sub>2.5</sub>. The days in each AQI for Marshall between 2018 and 2022 are provided in Table 6.5.1-1 below (MPCA, 2024c). Note that data from 2023 was not available at the time this Application was prepared.

TABLE 6.5.1-1					
<b>Days in Each Air Quality Index Category (Marshall, Minnesota)</b>					
Year	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy
2022	324	30	0	2	0
2021	289	65	3	2	0
2020	330	30	0	0	0
2019	326	35	0	0	0
2018	333	32	0	0	0

Source: MPCA, 2024c.

Air quality has generally been considered good for the majority of the past five reported years in Marshall. Since 2018, the largest number of days classified as moderate, unhealthy for sensitive groups, or unhealthy occurred in 2021. In that year, 65 days were classified as moderate, 3 days were classified as unhealthy for sensitive groups, and 2 days were classified as unhealthy.

### 6.5.1.2 Air Quality Impacts

Impacts on air quality from construction of the Project will be minimal and limited to the period of construction. Exhaust emissions from construction vehicles will be minimized by keeping construction equipment in good working order. When necessary, dust from construction traffic will be controlled using standard construction practices such as watering of exposed surfaces, covering of disturbed areas, and reducing vehicle speeds. Overall, dust emissions currently experienced annually in the area through farming activities will be reduced for the life of the Project through the establishment of perennial vegetative cover.

During operation of the line and proposed Forks Switching Station, air emissions would be minimal. Small amounts of oxides of nitrogen (NOx) and ozone are created due to corona from the operation of transmission lines. The production rate of ozone due to corona discharges decreases with humidity and, less significantly, with temperature. Rain causes an increase in ozone production, but also accelerates the decay of ozone. Ozone production by high voltage transmission lines is not detectable during fair weather conditions. Ozone production under wet weather conditions is detectable, but resulting emissions are insignificant with respect to national ambient air quality standards. The design of the transmission line may also influence ozone production rates. The ozone production rate decreases significantly as the conductor diameter increases and is greatly reduced for bundled conductors over single conductors. Conversely, the production rate of ozone increases with applied voltage. The emission of ozone from the operation of a transmission line of the voltage proposed for the Project would be minimal and is not anticipated to have a significant impact on the air quality.

### 6.5.1.3 Greenhouse Gas Emissions and Climate Change

Construction and operation of the Project will release greenhouse gases (GHG), contributing to global warming. However, operation of the Project will provide additional transmission capacity to support interconnection with, and transmission of, additional renewable energy generation from wind and solar facilities.

Activities associated with the construction of the Project will result in GHG emissions from the combustion of diesel and gasoline in heavy construction equipment, delivery vehicles, and worker passenger vehicles. Emissions from construction activities were calculated by estimating the volume of fuel expected to be consumed by each piece of equipment and determining the GHG emissions released upon combustion of those fuel volumes. Construction activities are expected to produce a total of 1,182 tons of carbon dioxide equivalent (CO<sub>2</sub>e). GHG emissions from construction vehicles will be minimized by keeping construction equipment in good working order. Upon completion of the construction activities, emissions from heavy equipment, delivery vehicles, and construction personnel will cease.

TABLE 6.5.1-2				
<b>Preliminary Emission Estimates for Greenhouse Gas Emissions</b>				
Description	Greenhouse Gas Emissions from Construction Engines (tons)			
	CO <sub>2</sub>	(Methane) CH <sub>4</sub>	NO <sub>2</sub>	CO <sub>2</sub> e <sup>a</sup>
Off-Road Engine Emissions	723.78	0.03	0.01	726.26
Commuters and Delivery Vehicles	455.52	0.00	0.00	455.52
<b>TOTAL</b>	<b>1,179.30</b>	<b>0.03</b>	<b>0.01</b>	<b>1,181.78</b>

<sup>a</sup> CO<sub>2</sub>e = carbon dioxide equivalent. Includes global warming potentials from 40 CFR 98 Table A-1.

During the operational stage, ITC Midwest will perform routine line inspections and vegetation maintenance approximately every three years. The commuter vehicles and maintenance trucks required for these inspections and maintenance will generate a minor amount of GHG emissions.

#### 6.5.1.4 Corona: Air Impacts

Corona can also produce ozone and oxides of nitrogen in the air surrounding the conductor. Ozone is a very reactive form of oxygen molecule that combines readily with other elements and compounds in the atmosphere, making it relatively short lived. Ozone forms naturally in the lower atmosphere from lightning discharges and from reactions between solar ultraviolet radiation and air pollutants such as hydrocarbons from auto emissions. The natural production rate of ozone is directly proportional to temperature and sunlight, and inversely proportional to humidity.

Like audible and radio frequency noise, corona-induced ozone and nitrogen oxides are typically not a concern for power lines with operating voltages at or below 161 kV because the electric field intensity is too low to produce significant corona. Therefore, ITC Midwest expects ozone and nitrogen oxide concentrations associated with the Project to be negligible, and well below all federal standards (nitrogen dioxide – 100 parts per billion as 1-hour average, 53 parts per billion as annual average; ozone 75 parts per billion as 8-hour average).

#### 6.5.1.5 Mitigation

Soils in the Project Study Area are not highly susceptible to wind erosion. If wind erosion becomes an issue during construction, standard industry practices may be implemented, including mulching exposed soils, wetting exposed soils, maintaining vegetative cover (both cover crops and permanent vegetation), and reducing vehicle speeds. Emissions from construction and maintenance vehicles will be minimized by keeping construction equipment in good working order.

During operation, corona effects will be minimized by using good engineering practices. Since a corona signifies a loss of electricity, ITC Midwest will design the transmission line to limit corona effects.

## 6.5.2 Water Resources

Hydrologic features in the Proposed Route are shown in Map 8 of Appendix B. Hydrologic features such as wetlands, lakes, rivers, and floodplains perform several important functions within a landscape, including flood attenuation, groundwater recharge, water quality protection, and wildlife habitat production. The Proposed Route is within the Missouri River–Big Sioux River watershed, in the northern portion of the Missouri River Basin.

### 6.5.2.1 Groundwater

#### Existing Environment

The MNDNR divides Minnesota into six groundwater provinces. The Project Study Area is in the South-central Province (Province 2), characterized by fine-grained clay and silt and may contain limited extents of surficial and buried sand aquifers. Sedimentary bedrock aquifers are commonly used.

The Minnesota Department of Health (MDH) enforces the federal Safe Drinking Water Act including the National Primary Drinking Water Regulations created under the Act. These regulations are legally enforceable standards and treatment techniques that apply to public water systems to protect drinking and source water. As a result, Minnesota adopted the State Wellhead Protection (WHP) Rule 4720.5100-4720.5590 in 1997. The MDH is responsible for administering the State WHP Program. Under the WHP Program, public water systems are required to develop and implement a plan that protects its drinking water source. Wellhead Protection Areas (WHPA) are approved surface and subsurface areas surrounding a public water supply well or well field that supplies a public water system, through which contaminants are likely to move toward and reach the well or well field. Drinking Water Supply Management Areas (DWSMAs) contain the WHPA but are outlined by clear boundaries, like roads or property lines. The DWSMA is managed in a WHPA plan, usually by a city.

There are no WHPA or DWSMAs in the Proposed Route or the Project Study Area.

The County Well Index (CWI) is a database that contains subsurface information for over 533,000 water wells drilled in Minnesota (MDH, 2024). CWI is maintained by the Minnesota Geological Survey (MGS) in partnership with the MDH. The data are derived from well contractors’ logs of geologic materials encountered during drilling and later interpreted by geologists at the MGS.

The CWI indicates that there are 24 wells (see Table 6.5.2-1 below) located within the Project Study Area and one well (ID 247698) is located within the Proposed Route. This scientific investigation well was drilled in 1978 and is 17 feet deep.

TABLE 6.5.2-1				
Wells Within the Project Study Area				
Unique Well ID	Use	Date Drilled	Depth (feet)	Aquifer
642698	Domestic	5/13/2003	107	Quaternary buried artesian aquifer

TABLE 6.5.2-1				
<b>Wells Within the Project Study Area</b>				
Unique Well ID	Use	Date Drilled	Depth (feet)	Aquifer
172139	Domestic	5/25/1978	115	Quaternary buried artesian aquifer
136177	Domestic	1/19/1979	530	Cretaceous, undiff.
136182	Domestic	5/4/1979	133	Quaternary buried artesian aquifer
111877	Domestic	4/18/1989	140	Quaternary undiff.
247697	Scientific Investigation	7/25/1978	12	
726589	Other	10/17/2006	572	
111853	Domestic	6/3/1977	110	Quaternary buried artesian aquifer
247699	Scientific Investigation	7/26/1978	17	
136194	Domestic	6/29/1979	245	Quaternary buried artesian aquifer
172145	Domestic	11/22/1978	352	Cretaceous, undiff.
172147	Domestic	3/7/1980	391	Cretaceous, undiff.
102830	Domestic	5/2/1977	385	Cretaceous, undiff.
247698	Scientific Investigation	7/26/1978	17	
500410	Domestic	9/26/1989	370	Cretaceous, undiff.
222763	Domestic	7/15/1970	407	Cretaceous, undiff.
174177	Abandoned	12/9/1981	130	Quaternary buried artesian aquifer
171941	Domestic	5/22/1981	223	Quaternary buried artesian aquifer
174166	Domestic	2/28/1981	292	Cretaceous, undiff.
131512	Domestic	6/25/1976	230	Cretaceous, undiff.
111854	Domestic	6/4/1977	96	Quaternary buried artesian aquifer
112817	Domestic	2/18/1976	420	Cretaceous, undiff..
586343	Domestic	9/15/2001	101	
844561	Domestic	12/3/2019	396	

## Impacts on Groundwater

Impacts to groundwater during construction and operation of the Project are not anticipated. Structure foundations will generally range from 25 feet to 40 feet in depth. All foundation materials will be non-hazardous. Any effects on water tables would be localized and short term and would not affect hydrologic resources. Prior to construction, geotechnical investigations will be completed to help identify shallow depth to groundwater resource areas, which may require special foundation designs. The one scientific investigation well within the Proposed Route will be located prior to construction and avoided during construction. ITC Midwest will continue to work with landowners to identify springs and wells near the Proposed Route.

## Mitigation

No impacts to groundwater are anticipated; therefore, no mitigation is proposed.

### 6.5.2.2 Floodplains

#### Existing Environment

A floodplain is any land area susceptible to being inundated by floodwaters from any source, and is usually flat, or nearly flat, land adjacent to a river or stream that experiences occasional or periodic flooding. It includes the floodway, which consists of the stream channel and adjacent

areas that carry flood flows, and the flood fringe, which includes areas covered by the flood but that do not experience strong current. Floodplains function to prevent damage to downstream areas by detaining debris, sediment, water, and ice. The Federal Emergency Management Agency (FEMA) delineates floodplains and determines flood risks in areas susceptible to flooding. FEMA designates floodplain areas based on the percent chance of a flood occurring in that area every year. These designations include the 100-year floodplain, which has a 1 percent chance of flooding each year, and the 500-year floodplain, which has a 0.2 percent chance of flooding each year.

At the state level, the MNDNR oversees the administration of the state floodplain management program by promoting and ensuring sound land use development in areas to promote the health and safety of the public, minimize loss of life, and reduce economic losses caused by flood damages. The MNDNR also oversees the national flood insurance program for the state of Minnesota. Floodplains are also regulated at the local level by each county. Associated ordinances allow for utility transmission lines as a conditional use for floodway and floodplain districts.

There are no FEMA floodplains within the Proposed Route.

### **Impacts on Floodplains**

There are no FEMA floodplains within the Proposed Route; therefore, impacts are not anticipated.

### **Mitigation**

No permanent impacts to floodplains are anticipated; therefore, no mitigation is proposed.

### **6.5.2.3 Impaired Waters**

#### **Existing Environment**

Under Section 303(d) of the Clean Water Act (CWA), the MPCA assesses all waters of the state and creates a list of impaired waters every two years. The listings are based on water quality monitoring of lakes and major streams and are used to set pollutant reduction goals needed to restore waters to the extent that they meet water quality standards for designated uses, which are referred to as total maximum daily loads. The list, known as the 303(d) list, is based on violations of water quality standards. In Minnesota, the MPCA has jurisdiction over determining 303(d) waters. These waters are described as “impaired.” The 303(d) list was approved by the USEPA on April 29, 2022.

The Proposed Route crosses one impaired waterbody, Little Sioux River (AUID 10230003-554), which is listed as having an impaired designated use for aquatic life, due to *Escherichia coli* (MPCA, 2022) (see Map 8 in Appendix B).

#### **Impacts on Impaired Waters**

ITC Midwest will place new transmission line structures outside of the impaired waterbody and transmission lines will span the waterbody. Direct impacts to impaired surface waters are not anticipated, and no Project activities are likely to exacerbate the existing impairment for *E. coli*. The new Forks Switching Station will not require a well or have a septic system. ITC Midwest will

employ BMPs during construction and in compliance with local and state permits to prevent erosion and sedimentation near surface waters.

### **Mitigation**

No impacts to impaired waters are anticipated; therefore, no mitigation is proposed.

#### **6.5.2.4 Lakes and Other Waterbodies**

##### **Existing Environment**

ITC Midwest conducted a desktop review for lakes and other waterbodies within the Proposed Route. Publicly available resources including the Minnesota PWI (MNDNR, 2011), Light Detection and Ranging (LiDAR) topography (MnGeo, 2023), and multiple years of aerial images were reviewed to identify potential lakes and other waterbodies within the Proposed Route. Based on that review, no lakes are present within the Proposed Route. Plum Lake, the closest lake, is approximately three miles southwest of the Proposed Route.

##### **Impacts on Waterbodies**

No lakes and other waterbodies are located within the Proposed Route; therefore, no impacts are anticipated.

##### **Mitigation**

No impacts to lakes and other waterbodies are anticipated; therefore, no mitigation is proposed.

#### **6.5.2.5 Rivers and Streams (Waterways)**

##### **Existing Environment**

Based on a review of aerial photography, Judicial Ditch 28 and the Little Sioux River are crossed by the Proposed Route. Both features are included in the MNDNR PWI (MNDNR, 2011).

ITC Midwest conducted a desktop determination for rivers and streams within the Proposed Route. Publicly available resources including the Minnesota PWI (MNDNR, 2011), LiDAR topography (MnGeo, 2023), and multiple years of aerial images were reviewed to identify potential rivers and streams within the Proposed Route. The desktop review identified five potential waterways within the Proposed Route in addition to the two PWI waterways. All five potential waterways appear to be ephemeral agricultural drainages.

##### **Impacts on Rivers and Streams**

ITC Midwest will place new transmission line structures outside of the waterways; therefore, no impacts are anticipated.

ITC Midwest will work with the MNDNR and other agencies to avoid and minimize impacts to the PWI waterway. ITC Midwest will secure a License to Cross Public Waters from the MNDNR for all PWI waterway crossings prior to Project construction.



## **Mitigation**

No permanent impacts to waterbodies are anticipated; therefore, no mitigation is proposed.

### **6.5.2.6 Wetlands**

#### **Existing Environment**

ITC Midwest's consultant, Merjent, Inc. (Merjent), conducted a desktop wetland determination using guidance from the *USACE Wetland Delineation Manual for Level 1 wetland determination methods* (Environmental Laboratory, 1987). This method is used to review available resources including the Minnesota update to the National Wetland Inventory (MNDNR, 2015), the Minnesota PWI (MNDNR, 2011), NRCS-USDA Soil Survey Geographic Database for hydric soils (Soil Survey Staff, 2019), LiDAR topography (MnGeo, 2023), and multiple years of aerial images to identify potential wetland areas within the Proposed Route. The result of the Level 1 wetland determination identified 50 potential palustrine emergent (PEM) wetlands within the Proposed Route (see Map 8 in Appendix B). All are farmed wetlands or wet roadside ditches adjacent to farmed wetlands.

In April 2024, Merjent conducted a field-based wetland delineation within the proposed Forks Switching Station; no wetlands were identified.

Additionally, a review of the MNDNR Natural Heritage Information System (NHIS) identified the presence of a calcareous fen near the Proposed Route (see Appendix G). The identified calcareous fen is located approximately 6.5 miles northeast of the Proposed Route.

#### **Impacts on Wetlands**

No permanent impacts to wetlands are anticipated. Wetland areas that may potentially be crossed for construction access that are not dry, stable, and/or frozen will be matted to reduce ground disturbance and will result in temporary impacts to vegetation. All wetlands will be spanned by the transmission line and no permanent impacts to wetlands will occur.

## **Mitigation**

Permanent impacts to wetlands are not anticipated; therefore, no mitigation is proposed.

### **6.5.3 Flora and Fauna**

#### **6.5.3.1 Flora**

#### **Existing Environment**

Vegetation within the Proposed Route is primarily farmed row crops, shelter belts associated with farmsteads, and public road ditches. The Proposed Route lies within the Prairie Parkland Province as defined by the Ecological Classification System of Minnesota and more specifically the North Central Glaciated Plains Section and the Coteau Moraines subsection (MDNR 2024a).

The North Central Glaciated Plains Section is characterized by a historic pattern of vegetation that reflects the frequency and severity of fires. The landforms in this section are supported by

marshes, wetland prairies, and wet meadow communities. Areas with rugged terrain or deeply dissected rivers support a mosaic of prairie and wooded communities (MNDNR 2024a).

The Coteau Moraines Subsection is currently characterized by agricultural use with a few areas of pre-settlement vegetation (MNDNR 2024a).

There are no MNDNR Scientific and Natural Areas within or near the Proposed Route. In addition, there are no Native Plant Communities or Sites of Biodiversity Significance crossed by the Proposed Route.

### **Impacts on Flora**

Minimal impacts to native vegetation are anticipated. The Proposed Route crosses agricultural land, adjacent to existing public road ROWs, which will minimize impacts to previously undisturbed vegetation. Minimal tree clearing is anticipated. Further, the transmission line will span sensitive resources, such as streams and wetlands, to the extent practical. Impacts on specific land cover types are discussed in Section 6.6.3 below, Land Cover.

Construction within the Proposed Route could lead to the introduction or spread of invasive species and noxious weeds. Construction activities that could potentially lead to the introduction of invasive species include ground disturbance that leaves soils exposed for extended periods, introduction of topsoil contaminated with weed seeds, vehicles importing weed seed from a contaminated site to an uncontaminated site, and conversion of landscape type, particularly from forested to open settings.

ITC Midwest will implement the measures described in the Project's Vegetation Management Plan (Appendix K), including measures to reduce the spread of invasive species and noxious weeds.

### **Mitigation**

Potential impacts due to invasive species and noxious weeds can be mitigated by:

- Revegetating disturbed areas using weed-free seed mixes and using weed-free straw and hay for erosion control.
- Removal of invasive species/noxious weeds via herbicide and manual means.
- Cleaning and inspecting construction vehicles to remove dirt, mud, plants, and debris from vehicles prior to arriving at and leaving construction sites.

### **6.5.3.2 Fauna**

#### **Existing Environment**

Wildlife species with the potential to occur within or near the Project were researched and are described below using information from the USFWS, MNDNR, and other publicly available sources. These species include fish, reptiles and amphibians, birds, and mammals described below. In addition, pollinator insects may be present in the Project area including native bees, butterflies, and moths. The following section includes a discussion of general wildlife resources

within the Project Area with a focus on species that commonly occur in cultivated agricultural lands. Additional details regarding protected species and other rare and unique resources that may be present in the Project Study Area are provided in Section 6.7 below.

Reptile and amphibian species that may occur in agricultural lands include red-bellied snake (*Storeria occipitomaculata*), plains garter snake (*Thamnophis radix*) and common gartersnake (*Thamnophis sirtalis*), painted turtle (*Chrysemys picta*), spiny softshell (*Apalone spinifera*), and snapping turtle (*Chelydra serpentina*) (MNDNR, 2023).

The Project Area is within the Mississippi Flyway, one of the primary north-south migration routes between migratory bird nesting and wintering habitat, and within the Prairie Potholes Bird Conservation Region (BCR; USFWS, 2021a). The USFWS identified 26 species of birds that breed within Prairie Potholes BCR as Birds of Conservation Concern (BCC); BCC are avian species that represent the agency's highest conservation priorities. BCC species that breed in the Prairie Potholes BCR and may nest or forage around agricultural lands or grasslands include the bobolink (*Dolichonyx oryzivorus*), chimney swift (*Chaetura pelagica*), and grasshopper sparrow (*Ammodramus savannarum*) (USFWS, 2021a).

Species of mammals that may use agricultural and grassland areas within the Project Area include white-tailed deer (*Odocoileus virginianus*), striped skunk (*Mephitis mephitis*), red fox (*Vulpes vulpes*), Virginia opossum (*Didelphis virginiana*), eastern cottontail (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), and thirteen-lined ground squirrel (*Spermophilus tridecemlineatus*) (MNDNR, 2024c).

Due to the temporary nature of vegetative cover in cultivated agricultural areas and lack of diversity in plant assemblages and habitat structure, occurrence and habitat quality for these species in the Project Area is limited.

### **Impacts on Fauna**

There is minimal potential for the displacement of wildlife and loss of habitat from construction of the Project. Wildlife that inhabits natural areas could be impacted in the short-term within the immediate area of construction. The distance that animals will be displaced will depend on the species. Additionally, these animals will be typical of those found in rural agricultural settings and should not incur population level effects due to construction.

Due to the confined nature of the Project, impacts on raptors, waterfowl and other bird species are anticipated to be minimal.

### **Mitigation**

Impacts on fauna species are anticipated to be temporary in nature and Edison Electric Institute (EEI) Avian Power Line Interaction Committee (APLIC) design recommendations will be considered in the Project design where practicable.

## **6.6 ZONING AND LAND USE**

### **6.6.1 Zoning**

#### **6.6.1.1 Existing Environment**

Based on the Jackson County Zoning map, the Proposed Route is in an area zoned as agricultural (Jackson County, 2009). Zoning information is shown on Map 9 in Appendix B. The Proposed Route also crosses protected waters, as identified by the Jackson County Zoning Map (Jackson County, 2009).

#### **6.6.1.2 Impacts on Zoning**

Construction and operation of the Project will not require a zoning change as the issuance of a Route Permit by the Commission supersedes or preempts all county and local zoning pursuant to Minn. Stat. § 216E.10, subd. 1.

#### **6.6.1.3 Mitigation**

In accordance with Minn. Stat. § 216E.10, subd. 1, after the Commission approves a Route Permit, local zoning, building, and land use regulations are preempted; therefore, no mitigation is anticipated.

### **6.6.2 Land Use**

#### **6.6.2.1 Existing Environment**

Current land use within the Proposed Route is mainly agricultural and road ROWs (Google Earth, 2024).

#### **6.6.2.2 Impacts on Land Use**

Transmission lines are compatible with agricultural activities and construction and operation of the transmission lines is not anticipated to have a significant impact on agricultural activities. The proposed Forks Switching Station will convert approximately 11.8 acres of agricultural land, which will be removed from production.

#### **6.6.2.3 Mitigation**

ITC Midwest will minimize impacts to existing land uses to the extent practical and impacts are anticipated to be minimal; therefore, no mitigation is proposed. Private landowners will be compensated for ITC Midwest's acquisition of the transmission line right-of-way and the land to be purchased for the Forks Switching Station site.

### 6.6.3 Land Cover

#### 6.6.3.1 Existing Environment

Based on U.S. Geological Survey Gap Analysis Project data, the total acreage of each land cover type within the Proposed Route is provided in Table 6.6.3-1 below and shown on Map 10 in Appendix B.

TABLE 6.6.3-1		
Land Cover Within Proposed Route		
Land Cover Type	Acres	Percentage of Total
Barren Land	0.1	0.004%
Cultivated Crops	1,412.6	90.4%
Developed, High Intensity	2.9	0.2%
Developed, Low Intensity	12.2	0.8%
Developed, Medium Intensity	12.3	0.8%
Developed, Open Space	100.2	6.4%
Emergent Herbaceous Wetlands	7.6	0.4%
Herbaceous	10.4	0.7%
Mixed Forest	3.9	0.3%
<b>TOTAL</b>	<b>1562.2</b>	<b>100%</b>

#### 6.6.3.2 Impacts on Land Cover

The Project will be constructed on private land, obtained through easements, adjacent to public road ROW. Impacts to forests and wetlands are anticipated to be minimal. Based on the preliminary Project design, the proposed Forks Switching Station will permanently impact up to 11.8 acres of land previously used for agriculture and each transmission line pole will have a diameter of 6 to 8 feet for direct embed and 8 to 10 feet for drilled pier foundations, which will impact agricultural land.

#### 6.6.3.3 Mitigation

Impacts to land cover are anticipated to be minimal; therefore, no mitigation is proposed.

### 6.7 RARE AND UNIQUE RESOURCES

#### 6.7.1 Existing Environment

##### 6.7.1.1 Threatened and Endangered Species

Merjent, on behalf of ITC Midwest, submitted a formal Natural Heritage Review Request (2023-00566) on July 27, 2023, through the MNDNR's Minnesota Conservation Explorer (MCE), which is included in Appendix G. An official response was received on July 27, 2023, and is included in Appendix G.

In addition, ITC Midwest reviewed the USFWS Information for Planning and Conservation (IPaC) website for a list of federally threatened and endangered species, candidate species, and designated critical habitat that may be present within the Project area (USFWS, 2024a).

### State Listed Species

Based on the official response from the MNDNR, the Minnesota Biological Survey (MBS) identified one or more Sites of Biodiversity Significance (SOB) within or adjacent to the Project Boundary; the SOB identified in the letter has a ranking of “below” in the MBS system. Additionally, one or more calcareous fens has been documented within the vicinity of the Project. The MNDNR indicated that no state-listed endangered, threatened, or special concern species have been documented within the vicinity of the Project.

On September 12, 2023, the MNDNR provided comments on the Project and indicated that several rare bird species have been observed near the Project, including the trumpeter swan (*Cygnus buccinator*; special concern), Forster’s tern (*Sterna forsteri*; special concern), and Henslow’s sparrow (*Ammodramus henslowii*; state-endangered). These species were not identified through the MCE review and are at least 3.4 miles from the Proposed Route.

#### Trumpeter Swan

Trumpeter swans, a large white bird, prefer small ponds and lakes or bays on larger waterbodies with extensive emergent vegetation, during the breeding season. Their ideal habitat includes 100 square meters of open water, low levels of human disturbance, and the presence of muskrats. Trumpeter swans generally migrate to central or southern Minnesota or nearby states to overwinter (MNDNR, 2024d).

#### Forster’s Tern

Forster’s tern is a slender, gull-like bird, that prefers extensive marshes with emergent vegetation and open water during the breeding season. They prefer deeper, open portions of marshes. In Minnesota, the Forester’s tern is found in the western prairies and towards the east through the prairie-woods transition. In the last 50 years, the Forster’s tern has expanded towards the Twin Cities (MNDNR, 2024e).

#### Henslow’s Sparrow

Henslow’s sparrow is a small, secretive bird with a flat, olive-colored head with dark stripes, streaked chest, and short tail. They prefer uncultivated grasslands and old fields with stalks for singing perches, litter depth, height of vegetation, and the presence of dead herbaceous stems. Ideally, grasslands larger than 247 acres are preferred; however, they will use smaller areas of suitable habitat (MNDNR, 2024f).

### Federally Listed Species

TABLE 6.7.1-1		
Federally Listed Species Previously Documented within the Proposed Route		
Common Name	Scientific Name	Federal Status
Prairie bush clover	<i>Lespedeza leptostachya</i>	Threatened

TABLE 6.7.1-1		
Federally Listed Species Previously Documented within the Proposed Route		
Common Name	Scientific Name	Federal Status
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered
Monarch butterfly	<i>Danaus plexippus</i>	Candidate

No critical habitat is present within the Proposed Route.

Prairie Bush Clover

Prairie bush clover is found only in the tallgrass prairie region of four Midwestern states. It is a member of the bean family and a midwestern "endemic"; known only from the tallgrass prairie region of the upper Mississippi River Valley. In southern Minnesota, prairie bush clover, is typically found on bedrock outcrop prairie or north facing mesic to dry prairie slopes. The majority of Minnesota populations are in prairies that have been or are presently used as pasture (MNDNR, 2024g).

Western Prairie Fringed Orchid

The western prairie fringed orchid is a single-stalked plant that blooms with large white flowers along the stalk. The plant occurs most often in mesic to wet unplowed tallgrass prairies and meadows (native prairie areas and prairie remnants) though it has also been recorded in old fields and roadside ditches. The species is well-adapted to survive both fire and light grazing (USFWS, 2024b).

Tricolored Bat

The tricolored bat is one of the smallest bat species native to North America. The species overwinters in caves and mines where available. However, throughout much of its range in the southern United States, roadside culverts, tree cavities, and abandoned water wells may also serve as suitable overwintering habitat.

During the active season (generally, April 1 to October 31), the species may be found roosting among leaf clusters (living and dead) on living or recently dead deciduous hardwood trees. Roost choice may also vary by region and this species has been observed roosting in eastern red cedar trees and pine needles, as well as within manufactured structures such as barns and bridges (USFWS, 2024c).

On September 13, 2022, the USFWS published a proposed rule listing the tricolored bat as federally endangered under the Endangered Species Act (ESA). A final rule is expected by fall 2024 (USFWS, 2022).

Monarch Butterfly

The monarch butterfly is a large butterfly with an approximate 3- to 4-inch wingspan and characterized by bright orange coloring on the wings, with distinctive black borders and veining. The species can be found in a wide variety of habitats including prairies, grasslands, urban

gardens, road ditches, and agricultural fields, provided a supply of nectaring plants are available for adult foraging and milkweed plants are present for laying eggs and as a food source for caterpillars (USFWS, 2024d).

On December 17, 2020, the USFWS published the result of its 12-month review of the monarch butterfly and determined that listing the species under the ESA was “warranted but precluded,” meaning the species meets the criteria for listing as an endangered or threatened species, but the USFWS cannot currently implement the listing because there are other listing actions with a higher priority. The species is now a candidate for listing; candidate species are not protected under the ESA (USFWS, 2020). The USFWS intends to reassess the species and determine if it is warranted for listing under the ESA by December 4, 2024. If listing is still warranted and an endangered or threatened status is proposed at that time, a final rule would be published within 12 months of the proposed rule and protections would be effective within 30 to 60 days, or around January 2026.

ITC Midwest holds a Certificate of Inclusion in the Nationwide Candidate Conservation Agreement with Assurances/Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands (ITC202101).

## **6.7.2 Impacts**

### **6.7.2.1 State-Listed Species**

Suitable breeding and foraging habitat for the Trumpeter swan, Forester’s tern, and Henslow’s sparrow is not present within the Proposed Route; however, it is possible that they will fly through the Project area.

### **6.7.2.2 Federally Listed Species**

#### **Prairie Bush Clover**

Suitable habitat for the prairie bush clover is not present within the Proposed Route; therefore, impacts are not anticipated.

#### **Western Prairie Fringed Orchid**

Suitable habitat for the western prairie fringed orchid is not present within the Proposed Route; therefore, impacts are not anticipated.

#### **Tricolored Bat**

Potential impacts to individual tricolored bats may occur if clearing or construction takes place when the species is roosting in its summer habitat, in trees outside of hibernacula. Bats may be injured or killed if occupied trees are cleared during this active window. Tree clearing activities conducted when the species is in hibernation and not present on the landscape will not result in direct impacts to individual bats but could result in indirect impacts due to removal of suitable roosting habitat (USFWS, 2021).

Suitable habitat for the tricolored bat is present within the Proposed Route. ITC Midwest will consult with USFWS on any necessary tricolored bat avoidance or mitigation measures.



## **Monarch butterfly**

Suitable habitat for monarchs may be present within the Project Study Area. If the USFWS determines the species should be listed and protections for the species will coincide with Project planning, permitting, and/or construction, the Applicant will review Project activities for potential impacts to the species, develop appropriate avoidance and mitigation measures, and consult with the USFWS as appropriate.

### **6.7.3 Mitigation**

This Project will occur almost entirely within active agricultural land, which does not provide suitable breeding or foraging habitat for state or federally listed species. Further, ground disturbance activities will be limited to the installation of new poles and proposed Forks Switching Station. This minimizes impacts to potentially suitable habitat in this area.

The following general measures will be used to help avoid or minimize impacts to area wildlife and rare natural resources during and after the completion of the proposed transmission line:

- BMPs will be used to prevent erosion of the soils in the areas of impact.
- Sound water and soil conservation practices will be implemented during construction and operation of the Project to protect topsoil and adjacent water resources and minimize soil erosion. Practices may include containing excavated material, protecting exposed soil, and stabilizing restored soil.
- Bird diverters will be installed across the listed PWI waterways, in accordance with the MNDNR's License to Cross Public Waters.

### **6.7.4 Natural Resource Sites**

#### **6.7.4.1 Existing Environment**

There are no MNDNR Wildlife Management Areas (WMA) and MNDNR Scientific and Natural Areas (SNA) in the Project Study Area. Additionally, there are no MNDNR Minnesota Biological Survey SOBs located within the Project Study Area. The Ulbricht WPA is located within the Project Study Area; however, the Proposed Route does not cross the Ulbricht WPA.

#### **6.7.4.2 Impacts**

No natural resource sites are located within the Proposed Route; therefore, impacts are not anticipated.

#### **6.7.4.3 Mitigation**

No natural resource sites will be impacted by the Project; therefore, no mitigation is proposed.

## **6.8 PHYSIOGRAPHIC FEATURES**

### **6.8.1 Topography**

#### **6.8.1.1 Existing Environment**

The Proposed Route is located within the Minnesota River Prairie Subsection of the North Central Glaciated Plains Section of the Prairie Parklands Province as defined by the MNDNR Ecological Classification System (MNDNR, 2024a). The Minnesota River Prairie Subsection includes gently rolling topography and is approximately 60 miles wide, spanning from west central Minnesota to south central Minnesota. Till plain is the dominant landform, but end moraines, and lake plains also occupy a significant area (Hobbs et al., 1982).

Surface elevations within the Proposed Route range from 1,406 to 1,489 feet above sea level (MNDNR, 2024h). Slopes vary throughout the Proposed Route, but the terrain is predominantly flat (see Map 11 in Appendix B).

#### **6.8.1.2 Impacts on Topography**

The proposed switching station will require grading and leveling for construction access and activities, therefore localized impacts to topography will occur. Transmission line structures are typically designed at existing grades. Construction of transmission lines will have minimal to no impact on the topography of the Proposed Route.

#### **6.8.1.3 Mitigation**

Because construction of the Project will have only localized impacts to the topography of the area, no mitigation is proposed.

### **6.8.2 Geology**

#### **6.8.2.1 Existing Environment**

Surficial geology features within Jackson County are relatively flat and derived from glacial origin as a result from the Des Moines lobe, during the last glaciation approximately 10,000 years ago. Surface deposits within the Project Study Area consist of Pleistocene aged clay and silt from glacial environments. Additionally, Holocene aged sand from alluvium deposits are present near tributaries (MGS, 2023). Glacial deposits are approximately 250 feet thick or greater, overlaying the bedrock with the Proposed Route (MGS, 2018). Underlying bedrock within the Proposed Route consists of Cretaceous aged conglomerate, sandstone, mudstone, shale, marlstone, siltstone, and minor lignite (Jirsa, et al., 2011). According to the University of Minnesota Karst Feature Inventory, karst features such as sinkholes, springs, and stream sinks are not present in the Project Study Area. The nearest karst feature is a stream sink, which is approximately 60 miles north of the Proposed Route.

#### **6.8.2.2 Impacts on Geology**

Construction of the Project will not alter the geology of the region because construction methods will not cause significant bedrock and geologic structure modification.

### 6.8.2.3 Mitigation

No alteration of the geologic structure of the region will occur due to Project construction; therefore, no mitigation is proposed.

### 6.8.3 Soils

#### 6.8.3.1 Existing Environment

The USDA Soil Conservation Service (SCS) Soil Survey of Jackson County (Genrich, 1988) indicates that the soils of Jackson County are primarily clay and silt loams. Throughout Jackson County the surface is near level. Jackson County is covered entirely by Pleistocene aged glacial drift, deposited by glacial ice or by meltwater streams flowing from the ice (Quade, H. et al., 1991). The different parent materials, topography, native vegetation, and type of glacial deposit account for the variety of soils in the County.

Soils within the Proposed Route mainly consist of silty clay loams, clay loams, and loams (USDA, 2019; see Map 12 in Appendix B). Approximately 41 percent of the Proposed Route is classified as hydric soil where historic wetlands were present prior to drainage (e.g., installation of drain tiles and ditches) or where wetlands are presently located. Approximately 59 percent of the Proposed Route is classified as non-hydric soils (MNDNR, 2022a; see Map 12 in Appendix B).

Approximately 40 percent of the Proposed Route is prime farmland if drained, 56 percent prime farmland, 2 percent farmland of statewide importance, and 2 percent not prime farmland (USDA, 2022).

TABLE 6.8.3-1				
Soil Types within the Proposed Project Route				
Soil ID	Soil Type	Farmland Designation	Acres	Percent of Total
102B	Clarion loam, 2 to 6 percent slopes	All areas are prime farmland	435.56	27.88
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded	All areas are prime farmland	100.66	6.44
921C2	Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance	16.88	1.08
96	Collinwood silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	89.98	5.76
118	Crippin loam, 1 to 3 percent slopes	All areas are prime farmland	61.12	3.91
336	Delft clay loam, 0 to 2 percent slopes	Prime farmland if drained	38.32	2.45
27B	Dickinson sandy loam, 1 to 6 percent slopes	All areas are prime farmland	10.11	0.65
27C	Dickinson sandy loam, 6 to 12 percent slopes	Not prime farmland	4.02	0.26
327B	Dickman sandy loam, 2 to 6 percent slopes	Farmland of statewide importance	14.56	0.93
197	Kingston silty clay loam, 1 to 3 percent slopes	All areas are prime farmland	7.64	0.49
1907	Lakefield silty clay loam	All areas are prime farmland	13.58	0.87
211	Lura silty clay, 0 to 1 percent slopes	Prime farmland if drained	43.29	2.77
L85A	Nicollet clay loam, 1 to 3 percent slopes	All areas are prime farmland	73.47	4.70
960D2	Omsrud-Storden complex, 10 to 16 percent slopes, moderately eroded	Not prime farmland	1.70	0.11

TABLE 6.8.3-1				
Soil Types within the Proposed Project Route				
Soil ID	Soil Type	Farmland Designation	Acres	Percent of Total
813	Spicer-Lura complex	Prime farmland if drained	232.68	14.89
101B	Truman silt loam, 2 to 6 percent slopes	All areas are prime farmland	85.72	5.49
229	Waldorf silty clay loam, 0 to 2 percent slopes	Prime farmland if drained	282.70	18.10
113	Webster clay loam, 0 to 2 percent slopes	Prime farmland if drained	23.98	1.54
664	Zook silty clay loam, 0 to 2 percent slopes, frequently flooded	Not prime farmland	26.19	1.68
<b>TOTAL</b>			<b>1,562.16</b>	<b>100.00</b>

### 6.8.3.2 Impacts on Soils

Based on the preliminary Project design, the Forks Switching Station will permanently impact up to 11.8 acres of land previously used for agriculture and each transmission line pole will have a diameter of 6 to 8 feet for direct embed, including vibratory caissons, and 8 to 10 feet for drilled pier foundations, which will impact agricultural land. Total impacts will be based on final design.

### 6.8.3.3 Mitigation

ITC Midwest will prepare and submit a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater (CSW) Permit application and Stormwater Pollution Prevention Plan (SWPPP) to MPCA for review and approval prior to construction to obtain coverage under the General Construction Stormwater Permit Program. Measures outlined in ITC Midwest’s Agricultural Impact Mitigation Plan (Appendix J) will be implemented during and after Project construction.

Construction activities may include containment of excavated material, protection of exposed soil, stabilization of restored material, and treating stockpiles to control fugitive dust. In accordance with the MPCA-approved SWPPP, the Project’s construction contractor will implement BMPs such as silt fencing (or other erosion control devices), revegetation plans, and management of exposed soils to prevent erosion.

## 6.9 ADDITIONAL HUMAN AND ENVIRONMENTAL IMPACT CONSIDERATIONS

### 6.9.1 Electric and Magnetic Fields

As it pertains to the Project, the term “Electric and Magnetic Fields (EMF)” refers to the extremely low frequency (ELF) effectively-decoupled electric and magnetic fields that are present around any electrical device or conductor and can occur indoors or outdoors from natural and man-made sources. Electric fields are the result of unbalanced electric charge, or voltage, on a conductor or object. The strength of an electric field is related to the magnitude of the voltage on the source as well as the geometric relationship between a variety of sources and the distance one is from those sources. Magnetic fields are the result of the flow of electricity, or current, traveling through a

conductor. The intensity of a magnetic field is related to magnitude of the current flow through the conductor, the geometric relationship between conductors, and the distance one is from those conductors. Both electric and magnetic fields decrease rapidly with distance from the source. Electric and magnetic fields can be found in association with transmission lines, local distribution lines, substation transformers, household electrical wiring, household water pipes, rotating vehicle tires, and common household appliances.

#### **6.9.1.1 Electric Fields**

Voltage on a wire produces an electric field in the area surrounding the wire. The voltage on the conductors of a transmission line generates an electric field extending from the energized conductors. The strength of transmission line electric fields is measured in kilovolts per meter (kV/m), and the magnitude of the electric field rapidly decreases with distance from the transmission line conductors. The presence of trees, buildings, or other solid structures between the source of the electric field and the area of interest can also significantly reduce the magnitude of the electric field at the area of interest. Because the magnitude of the voltage on a transmission line is near-constant the magnitude of the electric field will be near-constant regardless of the power flowing on the line.

Although there is no federal standard for transmission line electric field exposures, the Commission has adopted a maximum electric field limit of 8 kV/m at one meter above ground. ITC Midwest has calculated the approximate electric field for the Project's transmission line configuration and estimates the peak magnitude of electric field strength to be well below the Commission standard at approximately 2.76 kV/m underneath the conductors, 10 feet from the structure centerline, on the two-conductor side of the structure. Table 6.9.1-1 below summarizes the electric fields calculated for the proposed single-circuit transmission line.

TABLE 6.9.1-1

**Calculated Electric Fields (kV/M) for Proposed Project**

Structure Type	Voltage (kV)	Horizontal Distance from Pole Centerline (feet)												
		(- dimensions = on the single conductor side of the pole [west or south])												
		-300	-200	-100	-75	-50	-25	0	25	50	75	100	200	300
<b>161 kV</b>														
<b>Single-Circuit Monopole</b>														
Nominal Voltage	161	0.012	0.026	0.11	0.201	0.431	0.903	1.931	1.291	0.348	0.183	0.114	0.03	0.013
Maximum Short-term [5 minutes] Emergency Voltage	189.2	0.014	0.031	0.13	0.236	0.506	1.061	2.268	1.516	0.409	0.215	0.134	0.035	0.016

Note: Electric field values are calculated at a height of 1 meter above ground.

### 6.9.1.2 Magnetic Fields

Current passing through any conductor, including a wire, produces a magnetic field. The intensity of the magnetic field associated with a transmission line is proportional to the amount of current flowing through the line's conductors, and the intensity of the magnetic field rapidly decreases with the distance from the conductors. Unlike electric fields, magnetic fields are not significantly shielded by the presence of trees, buildings, or other solid structures nearby. The value of the magnetic field flux density is expressed in the unit of gauss (G) or milligauss (mG). Standards to limit public exposure to magnetic fields have not been adopted by the United States or by Minnesota.

Internationally recognized expert organizations such as the International Commission for Non-Ionizing Radiation Protection (ICNIRP) and the International Committee for Electromagnetic Safety (ICES) have developed guidelines for safe public exposure to EMF. The guidelines for public exposure developed by these organizations range from 2,000 to 9,040 mG. These exposure guidelines have been endorsed by the World Health Organization (WHO)

Over the past 40 years, a large amount of scientific research has been conducted on EMF and health. This large body of research has been reviewed by many leading public health agencies such as the U.S. National Cancer Institute, the U.S. National Institute of Environmental Health Sciences (NIEHS), and the WHO, among others. These agencies have concluded that exposure to EMF has not been shown to cause or contribute to any adverse health effects. For example, the WHO reports that "[D]espite extensive research, to date there is no evidence to conclude that exposure to low level electromagnetic fields is harmful to human health." Similarly, the U.S. National Cancer Institute concludes that "no consistent evidence for an association between any source of non-ionizing EMF and cancer has been found" (see Section 6.9.2 below).

Mean magnetic field levels associated with some common electric appliances are provided in Table 6.9.1-2 below.

TABLE 6.9.1-2			
<b>Table of Magnetic Fields of Common Electric Appliances</b>			
Appliance	6 Inches from Source	1 Foot from Source	2 Feet from Source
Hair Dryer	300 mG	1 mG	Not measured
Electric Shaver	100 mG	20 mG	Not measured
Can Opener	600 mG	150 mG	20 mG
Electric Range	30 mG	8 mG	2 mG
Television	Not measured	7 mG	2 mG
Portable Heater	100 mG	20 mG	4 mG
Vacuum Cleaner	300 mG	60 mG	10 mG
Copy Machine	90 mG	20 mG	7 mG
Computer	14 mG	5 mG	2 mG

ITC Midwest has calculated the approximate magnetic field levels for the Project's transmission line configuration and has determined that the magnetic field levels from this transmission line are

not unusual and are within the range of magnetic field levels found in homes, schools, offices, hospitals, stores, and other public locations. Table 6.9.1-3 below summarizes the electric fields calculated for the proposed single circuit 161 kV transmission line.



TABLE 6.9.1-3

**Calculated Magnetic Fields (in mG) for Proposed Project (Maximum Continuous Rating)**

Structure Type	Nominal Voltage (kV)	Line Current per Phase (Amps)	Load Case	Horizontal Distance (feet) from Pole Centerline (- dimensions = on the single conductor side of the pole [west or south])												
				-300	-200	-100	-75	-50	-25	0	25	50	75	100	200	300
161kV Single Circuit Monopole	161	71.7	Average Load	0.086	0.19	0.67	1.1	2.2	5.2	10.7	7	2.9	1.4	0.84	0.21	0.094
	161	268	Maximum Rated Load	0.32	0.7	2.5	4.1	8.1	19.3	40.1	26.1	10.9	5.4	3.1	0.8	0.35

## 6.9.2 EMF and Health Effects

A large amount of scientific research has been conducted on EMF. EMF studies have been done on leukemia, breast cancer, brain cancer, DNA damage, cancer clusters, birth defects, immune system damage, nervous system damage, Alzheimer's, ALS (Lou Gehrig's disease), Parkinson's disease, high blood pressure, heart disease, sleep disruption, and a number of other diseases and conditions. EMF may be one of the most studied exposures. In fact, more than 2,900 studies have been performed since the 1970s, costing more than \$490 million.

Reviews by independent governmental and health authorities, including those conducted by the WHO and the NIEHS have not concluded that exposure to electric power EMF causes or contributes to adverse health effects.

Minnesota, Wisconsin, and California have also all performed literature reviews or research to examine this issue. In 2002, Minnesota formed an Interagency Working Group to evaluate EMF research and develop policy recommendations to protect the public health from any potential problems arising from EMF effects associated with high-voltage transmission lines. The Working Group included staff from a number of state agencies and published its findings in *A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options*. The Working Group summarized its findings as follows:

Research on the health effect of EMF has been carried out since the 1970s. Epidemiological studies have mixed results—some have shown no statistically significant association between exposure to EMF and health effects, some have shown a weak association. More recently, laboratory studies have failed to show such an association, or to establish a biological mechanism for how magnetic fields may cause cancer. A number of scientific panels convened by national and international health agencies and the United States Congress have reviewed the research carried out to date. Most concluded that there is insufficient evidence to prove an association between EMF and health effects; however, many of them also concluded that there is insufficient evidence to prove that EMF exposure is safe.

Based on findings like the Working Group and U.S. National Cancer Institute, the Commission has consistently found that “there is insufficient evidence to demonstrate a causal relationship between EMF exposure and any adverse human health effects.”<sup>2</sup>

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<sup>2</sup> *In the Matter of the Application for a HVTL Route Permit for the Tower Transmission Line Project*, Docket No. ET-2, E015/TL-06-1624, Findings of Fact, Conclusions of Law and Order Issuing a Route Permit to Minnesota Power and Great River Energy for the Tower Transmission Line Project and Associated Facilities (August 1, 2007); see also *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474, Order Issuing Route Permit (Sept. 14, 2010); OAH Docket No. 7-2500-20283-2, ALJ Findings of Fact, Conclusions and Recommendation at Finding 216 (April 22, 2010 and amended April 30, 2010) (“there is no demonstrated impact on human health and safety that is not adequately addressed by the existing State standards for exposure”); *In the Matter of the Application of Xcel Energy for a Route Permit for the Lake Yankton to Marshall Transmission Line Project in Lyon County*, Docket No. E002/TL-07-1407, Findings of Fact, Conclusions of Law and Order Issuing a Route Permit to Xcel Energy for the Lake Yankton to Marshall Transmission Project at 7-8 (Aug. 29, 2008).

### **6.9.3 Stray Voltage**

“Stray voltage” is a small voltage resulting from the normal delivery or use of electricity which may be present or measured between two possible contact points that can be simultaneously contacted by members of the general public or animals; historically it described only voltages that exist at animal accessible locations in the vicinity of confined livestock. More precisely, stray voltage is a neutral-to-earth voltage (NEV) that exists between the neutral wire of the service entrance and grounded objects in buildings such as barns and milking parlors. There are several common sources of stray voltage and it is not uncommon for more than one source to be present at the same time. Common causes of stray voltage are as follows: voltage drop on a utility multi-grounded distribution line neutral; voltage drop on customer overhead or underground neutral wires between buildings; improperly grounded electric fence systems; bad connections; and improper premises wiring.

Transmission lines do not, by themselves, create stray voltage because they do not directly connect to businesses and residences. Transmission lines can induce a current on a distribution circuit parallel and adjacent to the transmission line. For additional information regarding stray voltage, please see the Minnesota Stray Voltage Guide that is available online at [www.minnesotastrayvoltageguide.com](http://www.minnesotastrayvoltageguide.com). If a landowner has stray voltage concerns on their property, ITC Midwest suggests they first contact their electric service provider. Because stray voltage is not a feature of the operation of a transmission line, no problems related to stray voltage are expected from this Project.

### **6.9.4 Corona**

Under certain conditions, the localized electric fields near an energized transmission line conductor can produce small electric discharges, ionizing nearby air. This is commonly referred to as the “corona” effect. Most often, corona formation is related to some sort of irregularities on the conductor, such as scratches or nicks, dust buildup, or water droplets. The air ionization caused by corona discharges can result in the formation of audible noise and radio frequency noise.

Corona formation is a function of the conductor radius, surface condition, line geometry, weather condition, line hardware, and most importantly, the line’s operating voltage. Corona-induced audible noise and radio and television interference are not expected to be a concern for this power line, because the electric field gradient is too low to produce significant corona.

### **6.9.5 Telecommunications Interference**

For electrical interference to occur to any of these systems (the listed ones), there must be a source of undesired electrical noise in the frequency band used by these systems. This 60 Hertz transmission line, as designed, does not produce any significant level of noise at the much higher frequencies of these systems. A second possible method of interference might be partial blocking of the transmitted signals by the overhead wiring or the poles. An engineering analysis showed that this is not considered practically possible for most of these systems, considering the small electrical size of the power line conductors, the height of the conductors above ground, and the multi-path and diffractive nature of most communication systems from source to receiver.

The likelihood of telecommunications interference (e.g., radio, television, cell phones, Global Positioning Systems) associated with the Project is minimal. ITC Midwest is unaware of any complaints related to radio or television interference resulting from the operation of any of its existing 161 kV facilities and does not expect radio and television interference to be an issue along the Proposed Route.

#### **6.9.6 Noise**

Transmission lines can cause audible noise due to corona discharges. The impacts and mitigation of audible noise due to the Project, including that due to corona, are discussed further in Section 6.2.3 above. Due to the insignificant expected corona production from this line, audible noise is not expected to cause any issues.

### **6.10 UNAVOIDABLE IMPACTS**

The design, construction, and operation of the Project will use the procedures and process described in this Application to specifically mitigate potential impacts. Minimal impacts from construction activities are unavoidable and could include short-term traffic delays, soil compaction and erosion, vegetative clearing, temporary wetland impacts, visual impacts, habitat loss, disturbance and displacement of wildlife, and loss of land use for other purposes. Nominal impacts include conversion of agricultural land and visual impacts related to the switching station.

The Project will require only minimal commitments of resources that are irreversible and irretrievable. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations. Irreversible commitments of resources are those that result from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments are those that result from the loss in value of a resource that cannot be restored after the action.

Those commitments that do exist are primarily related to construction. Construction resources include aggregate resources, concrete, steel, and hydrocarbon fuel. Surplus concrete and steel will be reused or recycled to the extent practicable. During construction, vehicles necessary for these activities will be deployed on site and will need to travel to and from the construction area, consuming hydrocarbon fuels. Other resources would be used in structure construction, structure placement, and other construction activities.

## **7.0 AGENCY, TRIBAL, AND PUBLIC OUTREACH**

### **7.1 AGENCY AND TRIBAL OUTREACH**

As part of the pre-application process, ITC Midwest initiated outreach to federal, tribal, state, and local agencies through in-person meetings and Project notification letters. Appendix F provides copies of correspondence and meeting notes from discussions with agency representatives.

In August 2023, ITC Midwest mailed Project introduction letters with maps of the Project Study Area to federal, state, and local agencies whose constituents may have an interest in the Project. The letter introduced the Project and requested agency input regarding public and environmental resources that may be located within the Project Study Area, or resources that could potentially

be affected by the Project. Copies of the letters and any responses received are available in Appendix F

On November 20, 2023, ITC Midwest sent a letter to each local government unit (LGU) within which the Proposed Route is located, as required by Minn. Stat. § 216E.03, subd. 3a. A copy of the letter and affidavit of mailing is available in Appendix C.

On November 20 and December 7, 2023, ITC Midwest sent Project introduction letters and maps of the Project Study Area to representatives of all Tribal Nations listed on the Commission’s formal Tribal Engagement contact list. The letter introduced the Project and invited tribal comments and ongoing communications with Tribal sovereign nations having an historical interest in the Project Study Area. Copies of the letters and one response are available in Appendix F.

A summary of communications with tribes and public agencies is included below. ITC Midwest will continue to communicate with federal, Tribal, state, and local agencies as the Project moves forward. Table 7.1-1 below identifies agencies that were contacted through meetings or a notification email outside of the public outreach outlined in Section 7.2 below and the date that the consultation was conducted.

TABLE 7.1-1	
<b>Agency and Tribal Contacts</b>	
Tribe or Agency	Date and Type of Communication
U.S. Fish and Wildlife Service	August 8, 2023, Introduction letter
U.S. Army Corps of Engineers	August 8, 2023, Introduction letter
U.S. Department of Agriculture – Natural Resources Conservation Services	August 8, 2023, Introduction letter
Tribal Government Contacts	November 20 and December 7, 2023, Tribal Engagement Letter
Minnesota Department of Transportation District 7	August 8, 2023, Introduction letter
Minnesota Department of Natural Resources – Ecological Services	August 8, 2023, Introduction letter
Minnesota Department of Agriculture	August 8, 2023, Introduction letter
Minnesota State Historic Preservation Office	August 8, 2023, Introduction letter
Minnesota Office of State Archaeologist	August 8, 2023, Introduction letter
Jackson County Land Management Dept.	August 8, 2023, Introduction letter
Jackson County Engineering Dept.	August 8, 2023, Introduction letter
Jackson Soil and Water Conservation District	August 8, 2023, Introduction letter
Jackson County Commissioners	November 20, 2023 LGU Letter
Jackson County Administrative Offices	November 20, 2023 LGU Letter
City of Worthington City Administrator	August 8, 2023, Introduction letter
City of Lakefield City Clerk	August 8, 2023, Introduction letter
City of Worthington Administrative Offices	November 20, 2023 LGU Letter
City of Lakefield Administrative Offices	November 20, 2023 LGU Letter
Ewington Township	November 20, 2023 LGU Letter
Round Lake Township	November 20, 2023 LGU Letter
Sioux Valley Township	November 20, 2023 LGU Letter
Rost Township	November 20, 2023 LGU Letter
State Representatives	November 20, 2023 LGU Letter
Federal Representatives	November 20, 2023 LGU Letter

## **7.1.1 Federal Agencies**

### **7.1.1.1 U.S Army Corps of Engineers**

The U.S. Army Corps of Engineers (USACE) will be consulted regarding potential impacts to Waters of the United States as the Project's design becomes better defined in relation to any delineated features identified during field surveys in 2024.

### **7.1.1.2 U.S. Fish and Wildlife Service**

The USFWS will be consulted regarding potential impacts to federally listed species as the Project's design becomes better defined.

## **7.1.2 Tribal Nations**

ITC Midwest sent Project introduction letters to all Tribal Nations on the Commission's contact list maintained on the eDockets. ITC Midwest will provide Project updates to any Tribal representatives who express interest in Project.

## **7.1.3 State Agencies**

### **7.1.3.1 Minnesota Department of Commerce – Energy Environmental Review and Analysis and Minnesota Public Utilities Commission Staff**

ITC Midwest exchanged informational emails with staff members from the EERA and the Commission throughout the application development process. ITC Midwest provided an overview of the Project, Project need, Project scope, the anticipated schedule for submitting a Route Permit application, and the Project construction and completion schedule.

### **7.1.3.2 Minnesota Department of Natural Resources**

The MNDNR participates in the Commission review process, MCE concurrence, and PWI crossings. These discussions included the following:

- On behalf of ITC Midwest, Merjent submitted a formal Natural Heritage Review Request (2022-0070) on July 27, 2023 (see Appendix G) through the MNDNR's MCE.
- On behalf of ITC Midwest, Merjent sent agency introduction letters on August 8, 2023 (see Appendix F).

## **7.1.4 Local Government Units**

### **7.1.4.1 County**

On December 12, 2023, ITC Midwest met with Tim Stahl, Jackson County Engineer, to discuss the upcoming Fork-Rost Project, potential routes, timelines, and plans for a public open house.

## 7.2 PUBLIC OUTREACH

### 7.2.1 Open House

On January 10, 2024, ITC Midwest hosted an open house at the Lakefield Multi-Purpose Room in Lakefield, Minnesota. Landowners located within 0.25 mile of the Project Study Area received a mailer inviting them to the open house. See Appendix H for open house materials. Staff from ITC Midwest were on hand to describe the Project and answer questions from attendees.

### 7.2.2 Key Communication Channels

For additional information on the Project please contact Mark Rothfork at (763) 257-6821, or Lori Broghammer at (641) 220-4600.

## 8.0 REQUIRED PERMITS, APPROVALS, AND CONSULTATIONS

In addition to the route permit sought in this application, several other permits may be required to construct the Project depending on the actual route selected and the conditions encountered during construction. A list of the local, state, and federal permits that may be required for this Project is provided in Table 8.0-1 below. Any required permits will be obtained by ITC Midwest prior to Project construction.

TABLE 8.0-1	
Permit and Approval List	
Permit, Approval, or Consultation	Administering Agency
<b>Local Approvals</b>	
Road Crossings / ROW Permits	Jackson County, Ewington Township, Rost Township
Oversize/Overweight Permits	Jackson County, Ewington Township, Rost Township
Driveway/Access Permits	Jackson County, Ewington Township, Rost Township
Utility Permits	Jackson County, Ewington Township, Rost Township
<b>Minnesota State Approvals</b>	
Endangered Species Consultation	Minnesota Department of Natural Resources – Ecological Services
Licenses to Cross Public Waters	Minnesota Department of Natural Resources – Lands and Minerals
National Pollutant Discharge Elimination System Stormwater Permit	Minnesota Pollution Control Agency
Wetland Conservation Act	Board of Water and Soil Resources, County, Townships
Minnesota Statutes Chapter 138 (Minnesota Field Archaeology Act and Minnesota Historic Sites Act)	State Historic Preservation Office
Driveway/Access Permits	Minnesota Department of Transportation
Utility Accommodation on Trunk Highway ROW	Minnesota Department of Transportation
Oversize / Overweight Permits	Minnesota Department of Transportation
<b>Federal Approvals</b>	
Section 404 Clean Water Act Permit	U.S Army Corps of Engineers
Section 10 Rivers and Harbors Act Permit	U.S Army Corps of Engineers
Endangered Species Consultations	U.S. Fish and Wildlife Service
Part 7460 Airport Obstruction Evaluation	Federal Aviation Administration / Minnesota Department of Transportation
<b>Other Approvals</b>	
Crossing Permits/Agreements	Other Utilities such as pipelines or railroads

## **8.1 LOCAL APPROVALS**

After the Commission approves a route and any appropriate design engineering is completed, ITC Midwest will work with LGUs to obtain any of the above approvals if necessary. In accordance with Minn. Stat. § 216E.10, subd. 1, after the Commission approves a Route Permit, local zoning, building, and land use regulations are preempted.

### **8.1.1 Road Crossing/ROW Permits**

These permits may be required to cross or occupy state, county, or township road ROW.

### **8.1.2 Oversize/Overweight Load Permits**

These permits may be required to move over-width or heavy loads on state, county, or township roads.

### **8.1.3 Driveway/Access Permits**

These permits may be required to construct access roads or driveways from state, county, or township roads to Project facilities.

### **8.1.4 Utility Permits**

A permit from the state, county or township may be required for conductors crossing public roads. ITC Midwest will apply for these permits once the transmission line design is complete and will acquire them prior to applicable construction activities.

## **8.2 STATE APPROVALS**

### **8.2.1 Endangered Species Consultation**

The MNDNR Natural Heritage and Nongame Research Program collects, manages, and interprets information about nongame species. Merjent, on behalf of ITC Midwest, submitted a formal Natural Heritage Review Request 2023-00566 on July 27, 2023 (see Appendix G) through the MNDNR's MCE. An automated response provided by the MNDNR on July 27, 2023, indicated that no state-listed endangered or threatened species have been documented within the vicinity of the Project (see Appendix G).

### **8.2.2 License to Cross Public Waters**

The MNDNR Division of Lands and Minerals regulates utility crossings over, under, or across any state land or public water identified on the Public Waters and Wetlands Maps. A License to Cross Public Waters is required under Minn. Stat. § 84.415, and Minn. R. ch. 6135, because the Project would cross a MNDNR Public Water. ITC Midwest will work with the MNDNR to obtain the license once sufficient engineering work is completed to support the MNDNR application process.



### **8.2.3 NPDES Construction Stormwater Permit**

A NPDES permit from the MPCA is required for stormwater discharges associated with construction activities disturbing one or more acres. A requirement of the permit is to develop and implement a SWPPP, which includes BMPs to minimize discharge of pollutants from the site. This permit will be acquired if construction of the Project will cause a disturbance in excess of one acre.

### **8.2.4 Section 401 Water Quality Certification**

A Section 401 Water Quality Certification (WQC) under the federal CWA is necessary to obtain a federal permit for a project that could result in a discharge to navigable waters. A Section 401 WQC is a part of the Section 404 process and would be obtained with the joint applications for Wetland Conservation Act (WCA) and the Section 404 permit. While the CWA is a federal statute, the MPCA has delegated authority under the Act to administer the Section 401 WQC process in Minnesota.

### **8.2.5 Wetland Conservation Act**

The Minnesota Board of Water and Soil Resources administers the state WCA, under Minn. R. ch. 8420. In accordance with these rules, A Federal Approval Exemption for Utilities (Exemption) is available and states that a replacement plan is not required for wetland impacts resulting from the construction, maintenance, or repair of utility lines and associated facilities when certain conditions are met. The Project may require federal approval for anticipated permanent and temporary impacts to wetlands from Project construction. If approval is required and the Applicant applies for USACE permits (a joint application with the Section 404 permit) or for a USACE non-reporting general permit, the Project may meet the conditions of the Exemption. The use of the Exemption will be evaluated, if applicable once more detailed transmission engineering and design is completed.

If the Exemption does not apply to the Project and if a Wetland Replacement Plan is required under WCA, the applicable LGU will oversee the process.

### **8.2.6 Oversize and/or Overweight Permit**

In accordance with Minnesota Commercial Truck and Passenger Regulations, Section 05, an Oversize and/or Overweight permit is required by MnDOT when a vehicle is transporting an oversize/overweight load on Minnesota trunk highways. If the Project requires the transport of oversize or overweight loads, the Applicant and its contractors will work with MnDOT to obtain any required permits.

## **8.3 FEDERAL APPROVALS**

### **8.3.1 Section 404 CWA Permit**

A Section 404 permit is required from the USACE under the federal CWA for discharges of dredged or fill material into waters of the United States. Once the Commission approves a final route and a more detailed design of the switching station construction and transmission line is completed, ITC Midwest will determine if impacts exceed the permitting threshold. If impacts exceed the permitting threshold, ITC Midwest will apply for any required permits.

### **8.3.2 Spill Prevention, Control and Countermeasure Plan**

A non-transportation related facility is subject to Spill Prevention, Control and Countermeasure Plan (SPCC) regulations if the total aboveground storage capacity exceeds 1,320 gallons or the underground oil storage capacity exceeds 42,000 gallons and the facility could reasonably expect to discharge oil into or upon the navigable waters of the United States. SPCC plans are prepared and implemented according to USEPA regulations Title 40, Code of Federal Regulations, Part 112. ITC Midwest's new switching station will not have a total aboveground oil storage capacity of over 1,320 gallons; therefore, no SPCC plan is required.

### **8.3.3 Endangered Species Act Consultation**

ITC Midwest reviewed the USFWS IPaC website for a list of federally threatened and endangered species, candidate species, and designated critical habitat that may be present within the Project Study Area (see Section 6.7 above). ITC Midwest will work with the USFWS regarding Project--specific construction considerations after the Commission approves a route for the Project, and the mechanism for consultation will be based on whether there is a federal nexus. The Applicant will work with the USFWS to comply with the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, to identify any areas that may require marking transmission line shield wires, and/or to use alternate structures to reduce the likelihood of avian collisions and electrocution to the extent practical.

## **9.0 APPLICATION OF RULE CRITERIA**

### **9.1 ROUTE PERMIT FACTORS**

According to Minn. Stat. § 216E.02, subd. 1, it is the policy of the State of Minnesota to locate high voltage transmission lines in an orderly manner that minimizes adverse human and environmental impacts and ensures continuing electric power system reliability and integrity. Under Minn. R. 7850.4000, the Commission's rules require that applicants for route permits meet applicable standards and factors under Minn. Stat. §§ 216E.03 and 216E.04, and under other Minnesota law and Commission rules. The Commission shall issue a route permit for a high voltage transmission line that is consistent with state goals to conserve resources, minimizes environmental impacts and impacts to human settlement, minimizes land use conflicts, and ensures the state's electric energy security through efficient, cost-effective transmission infrastructure.

The Proposed Route for the Project addresses these criteria:

- The Project is consistent with state goals to conserve resources because it is proposed to be routed adjacent to existing public road ROWs, thus avoiding and minimizing potential additional impacts.
- The Project will minimize environmental impacts because it is proposed to be routed almost entirely on agricultural land, which avoids and minimizes potential impacts on vegetation and wildlife.

- The Project will minimize impacts on human settlement and other land use conflicts because it is proposed to be sited adjacent to existing public road ROWs and avoids farmsteads, thus minimizing impacts to landowners and existing land uses.
- The Project is consistent with state goals to ensure electric energy security because it will help ensure continued reliable and secure electrical service to consumers in the region.

## **9.2 CONCLUSION AND REQUEST FOR COMMISSION APPROVAL**

For all the reasons set forth in this Application and as supported by the attached Appendices, ITC Midwest respectfully requests that the Commission issue a Route Permit authorizing construction of the Project along the Proposed Route.

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## **Appendix A**

### **Route Permit Application Completeness Checklist**

**Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project  
Route Permit Application (Alternative Review)  
Completeness Checklist**

Authority	Required Information	Location in Application
<b>Minn. Stat. § 216E.04 – Notice of Application</b>		
Subd. 4	<p>Upon submission of an application under this section, the applicant shall provide the same notice as required by section 216E.03, Subdivision 4.</p> <p>216E.03, Subd. 4: Within 15 days after submission of an application to the commission, the applicant shall publish notice of the application in a legal newspaper of general circulation in each county in which the site or route is proposed and send a copy of the application by certified mail to any regional development commission, county, incorporated municipality, and town in which any part of the site or route is proposed. Within the same 15 days, the applicant shall also send a notice of the submission of the application and description of the proposed project to each owner whose property is on or adjacent to any of the proposed sites for the power plant or along any of the proposed routes for the transmission line. The notice must identify a location where a copy of the application can be reviewed. For the purpose of giving mailed notice under this subdivision, owners are those shown on the records of the county auditor or, in any county where tax statements are mailed by the county treasurer, on the records of the county treasurer; but other appropriate records may be used for this purpose. The failure to give mailed notice to a property owner, or defects in the notice, does not invalidate the proceedings, provided a bona fide attempt to comply with this subdivision has been made. Within the same 15 days, the applicant shall also send the same notice of the submission of the application and description of the proposed project to those persons who have requested to be placed on a list maintained by the commission for receiving notice of proposed large electric generating power plants and high voltage transmission lines.</p>	To be provided
<b>Minn. R. 7850.2800 – Notice to PUC</b>		



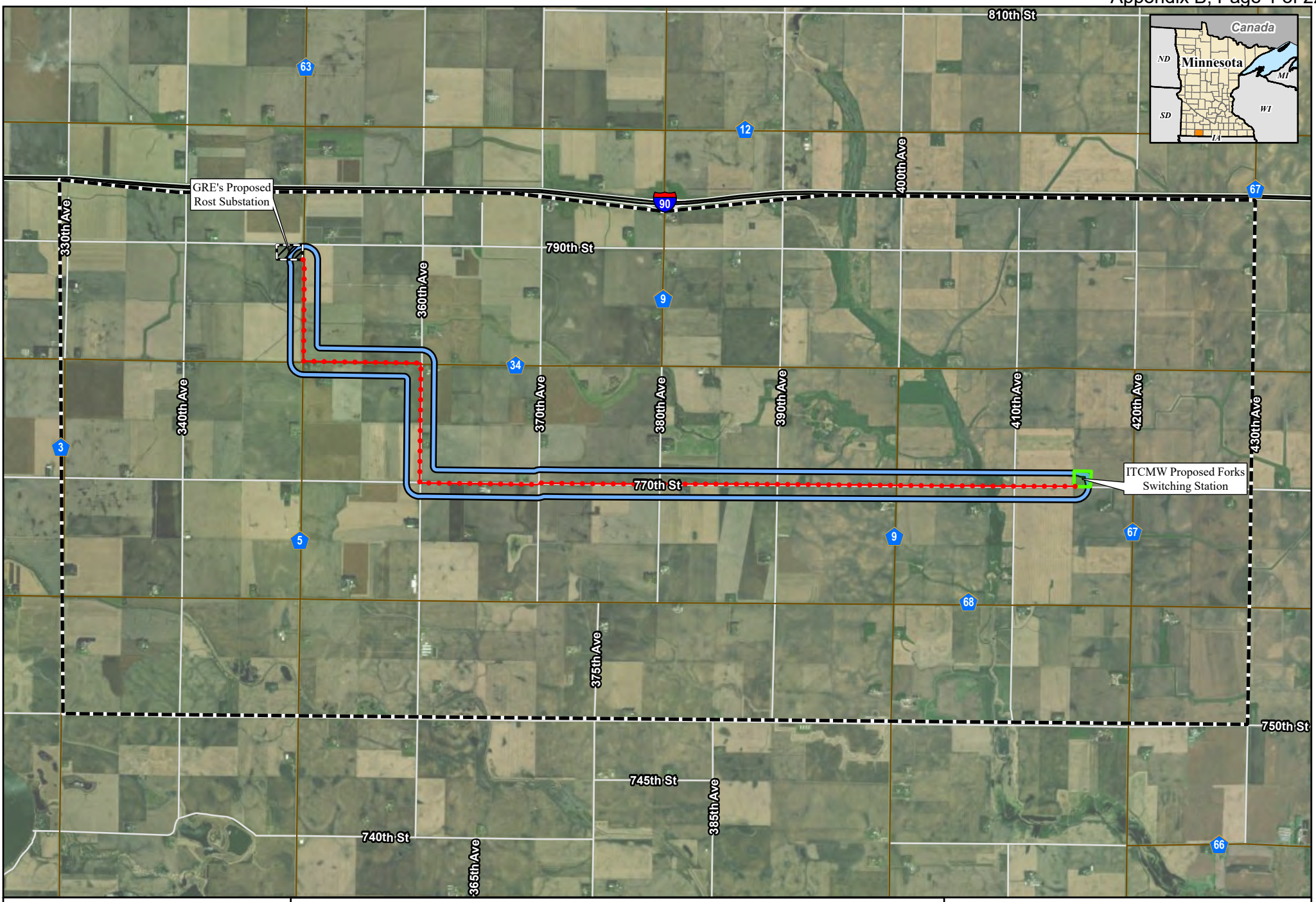
Authority	Required Information	Location in Application
Subp. 2	An applicant for a permit for one of the qualifying projects in subpart 1, who intends to follow the procedures of parts 7850.2800 to 7850.3700, shall notify the PUC of such intent, in writing, at least ten days before submitting an application for the project.	Appendix D
<b>Minn. R. 7850.3100 - Contents of Application</b>		
	<b>(Alternative Review).</b> The applicant shall include in the application the same information required in part 7850.1900, except the applicant need not propose any alternative sites or routes to the preferred site or route. If the applicant has rejected alternative sites or routes, the applicant shall include in the application the identity of the rejected sites or routes and an explanation of the reasons for rejecting them.	§ 3
<b>Minn. R. 7850.1900, subp. 2 - Route Permit for High Voltage Transmission Line (HVTL)</b>		
A.	A statement of proposed ownership of the facility at the time of filing the application and after commercial operation;	§ 1.1
B.	The precise name of any person or organization to be initially named as permittee or permittees and the name of any other person to whom the permit may be transferred if transfer of the permit is contemplated;	§ 1.3
C.	At least two proposed routes for the proposed high voltage transmission line and identification of the applicant's preferred route and the reasons for the preference;	Not required by Minn. R. 7850.3100.
D.	A description of the proposed high voltage transmission line and all associated facilities including the size and type of the high voltage transmission line;	§ 1.5
E.	The environmental information required under subpart 3;	Chapter 6
F.	Identification of land uses and environmental conditions along the proposed routes;	§§ 6.1, 6.6
G.	The names of each owner whose property is within any of the proposed routes for the high voltage transmission line;	Appendix I
H.	United States Geological Survey topographical maps or other maps acceptable to the commission showing the entire length of the high voltage transmission line on all proposed routes;	Appendix B, Map 11

Authority	Required Information	Location in Application
I.	Identification of existing utility and public rights-of-way along or parallel to the proposed routes that have the potential to share the right-of-way with the proposed line;	§§ 4.1, 4.2, 4.3, 5.1, Map 2
J.	The engineering and operational design concepts for the proposed high voltage transmission line, including information on the electric and magnetic fields of the transmission line;	§§ 2.2, 6.9
K.	Cost analysis of each route, including the costs of constructing, operating, and maintaining the high voltage transmission line that are dependent on design and route;	§ 2.4
L.	A description of possible design options to accommodate expansion of the high voltage transmission line in the future;	§ 2.2.4
M.	The procedures and practices proposed for the acquisition and restoration of the right-of-way, construction, and maintenance of the high voltage transmission line;	§§ 5.1, 5.2, 5.3, 5.4
N.	A listing and brief description of federal, state, and local permits that may be required for the proposed high voltage transmission line; and	Chapter 8
O.	A copy of the Certificate of Need or the certified HVTL list containing the proposed high voltage transmission line or documentation that an application for a Certificate of Need has been submitted or is not required.	Certificate of Need not required
<b>Minn. R. 7850.1900, subp. 3 - Environmental Information</b>		
A.	A description of the environmental setting for each site or route;	§ 6.1
B.	A description of the effects of construction and operation of the facility on human settlement, including, but not limited to, public health and safety, displacement, noise, aesthetics, socioeconomic impacts, cultural values, recreation, and public services;	§ 6.2
C.	A description of the effects of the facility on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;	§ 6.3
D.	A description of the effects of the facility on archaeological and historic resources;	§ 6.4
E.	A description of the effects of the facility on the natural environment, including effects on air and water quality resources and flora and fauna;	§ 6.5

Authority	Required Information	Location in Application
F.	A description of the effects of the facility on rare and unique natural resources;	§ 6.7
G.	Identification of human and natural environmental effects that cannot be avoided if the facility is approved at a specific site or route; and	§ 6.10
H.	A description of measures that might be implemented to mitigate the potential human and environmental impacts identified in items A to G and the estimated costs of such mitigative measures.	§§ 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8

## **Appendix B**

### **Project Route Maps**

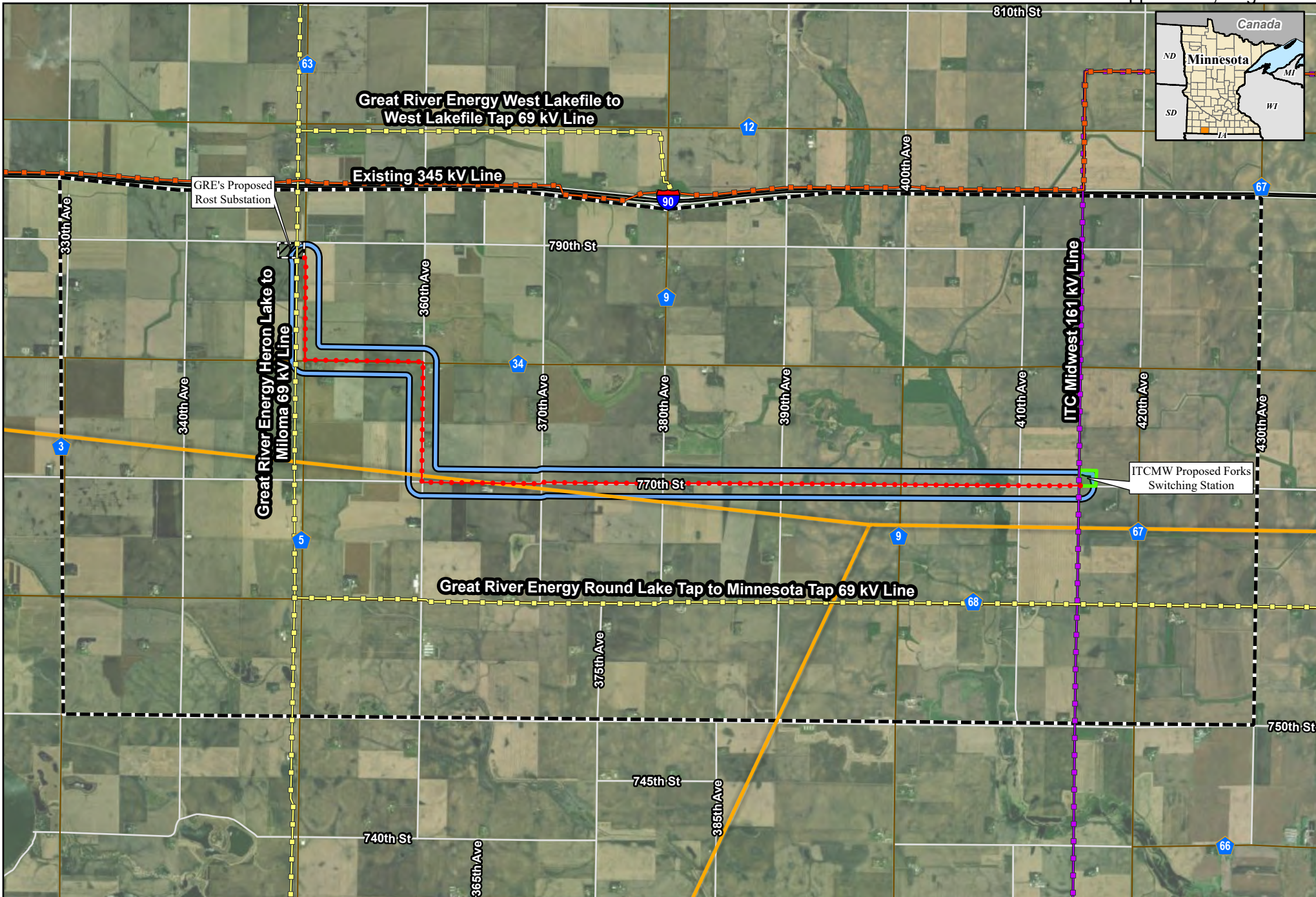


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**Map 1 - Project Overview**  
**Forks-Rost 161 kV Project**  
 ITC Midwest  
 Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station

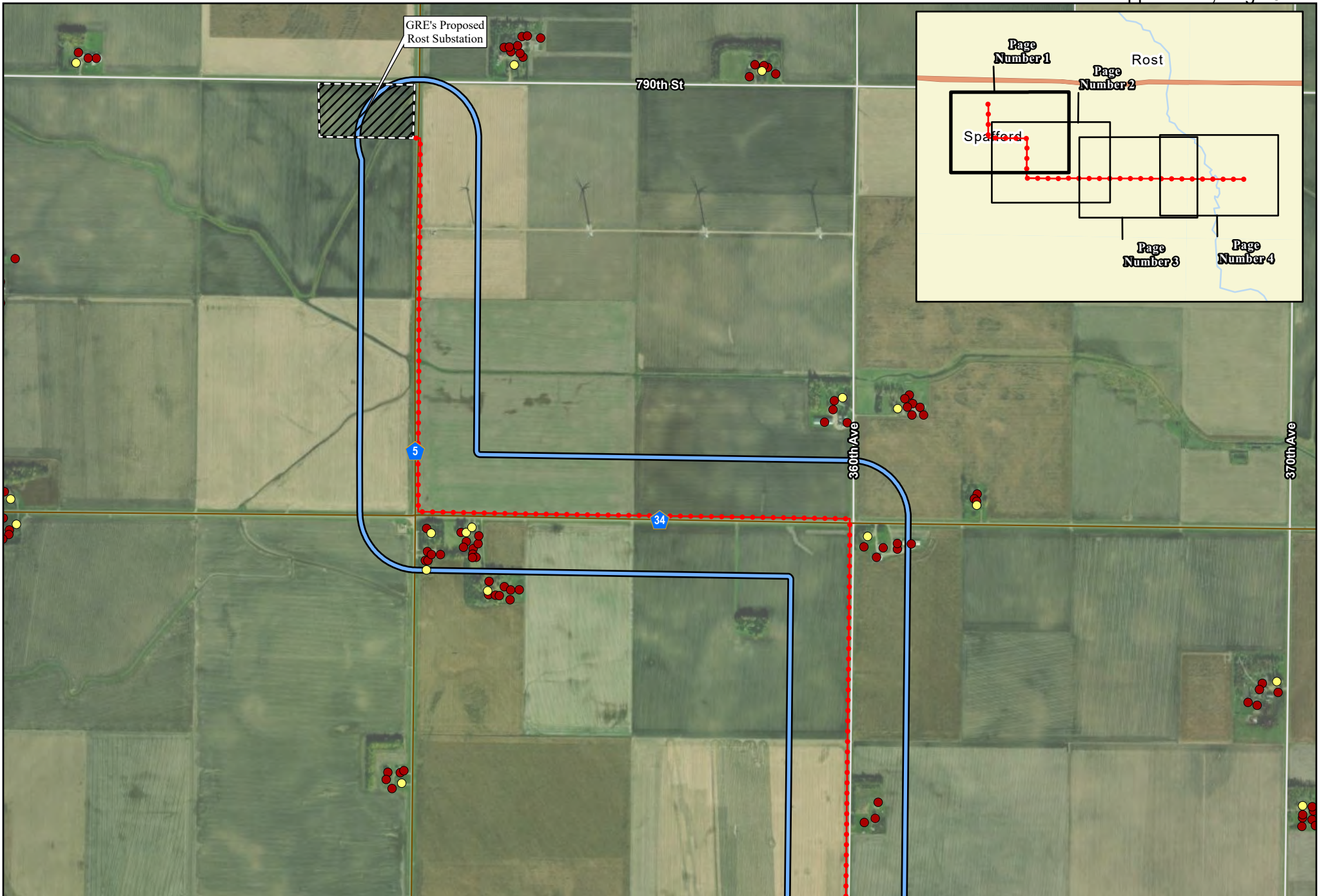


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**Map 2 - Existing Utilities  
Forks-Rost 161 kV Project**  
ITC Midwest  
Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Interstate
- County Road
- Local Road
- Existing 69 kV Transmission Line
- Existing 161 kV Transmission Line
- Existing 345 kV Transmission Line
- Northern Natural Gas Existing Pipeline












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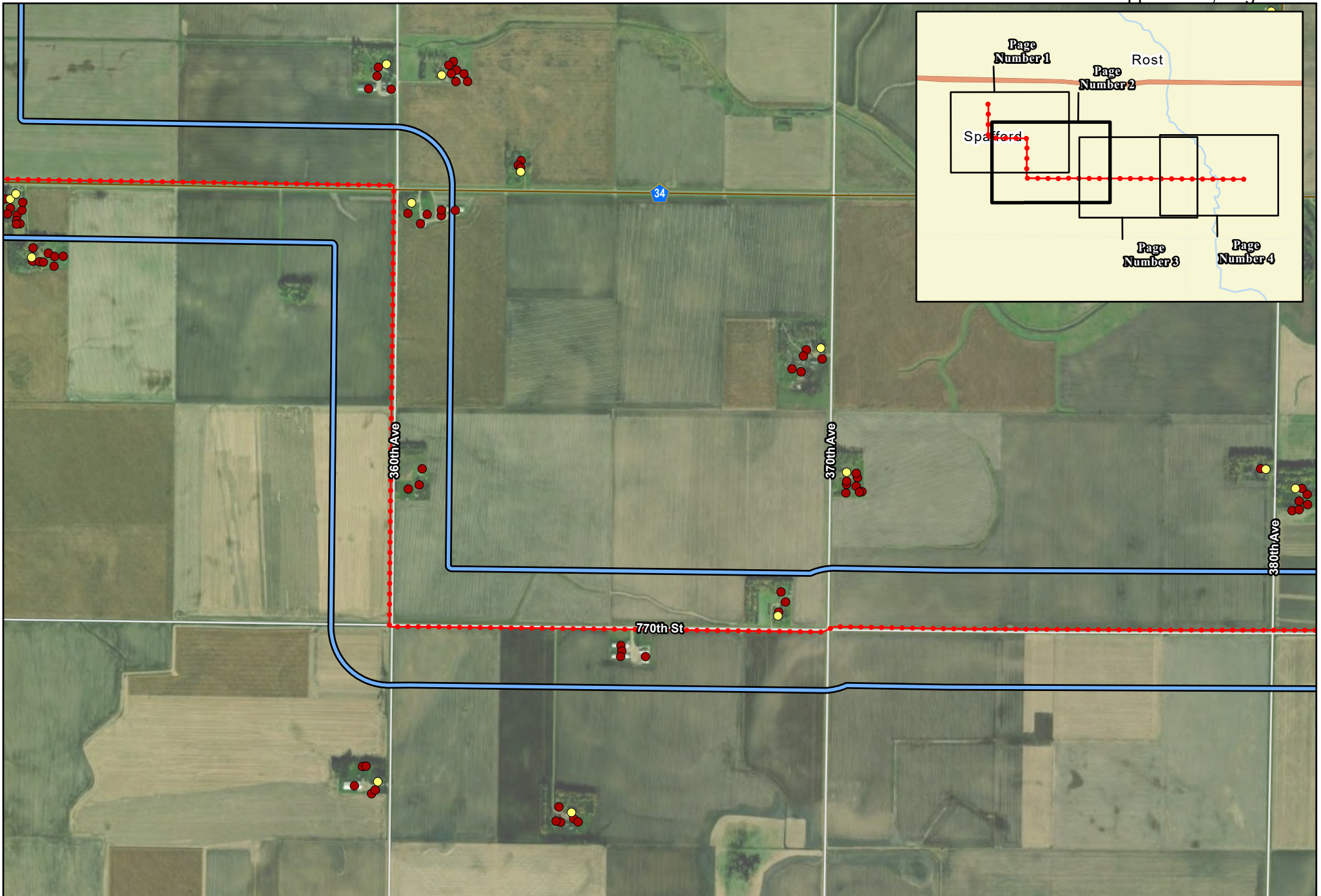
### Map 3 - Displacement Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

 Residence	 Proposed Route (width = 1,500 feet)
 Non-Residence	 GRE's Proposed Rost Substation
 Proposed Alignment	 ITCMW Proposed Forks Switching Station

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Date: (6/30/2024)



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### Map 3 - Displacement Forks-Rost 161 kV Project

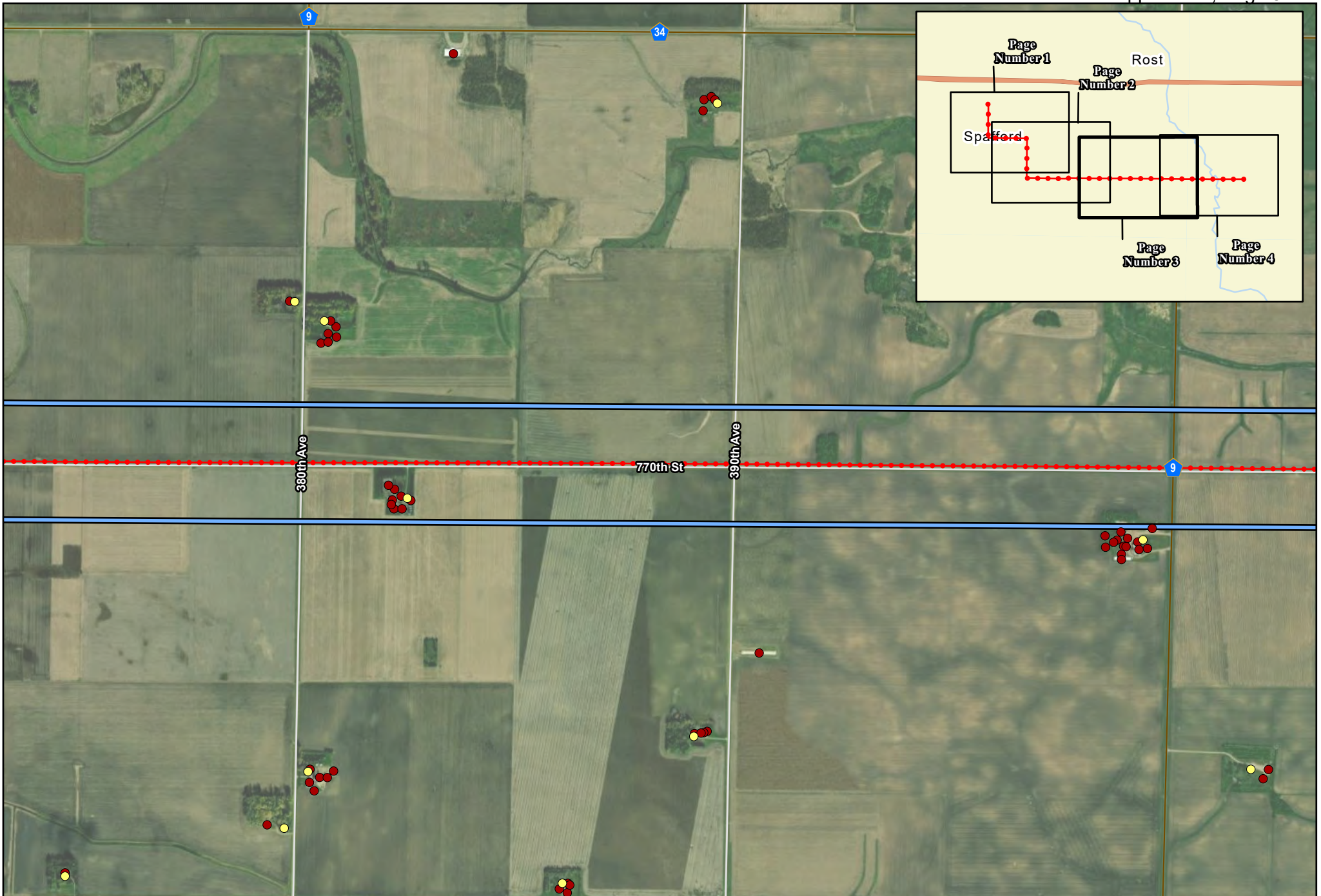
ITC Midwest  
Jackson County, Minnesota

Residence	Proposed Route (width = 1,500 feet)
Non-Residence	GRE's Proposed Rost Substation
Proposed Alignment	ITCMW Proposed Forks Switching Station

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Source: Z:\Clients\LU\ITC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\ITC\_ForksRost\_RPA.aprx  
Date: (6/30/2024)





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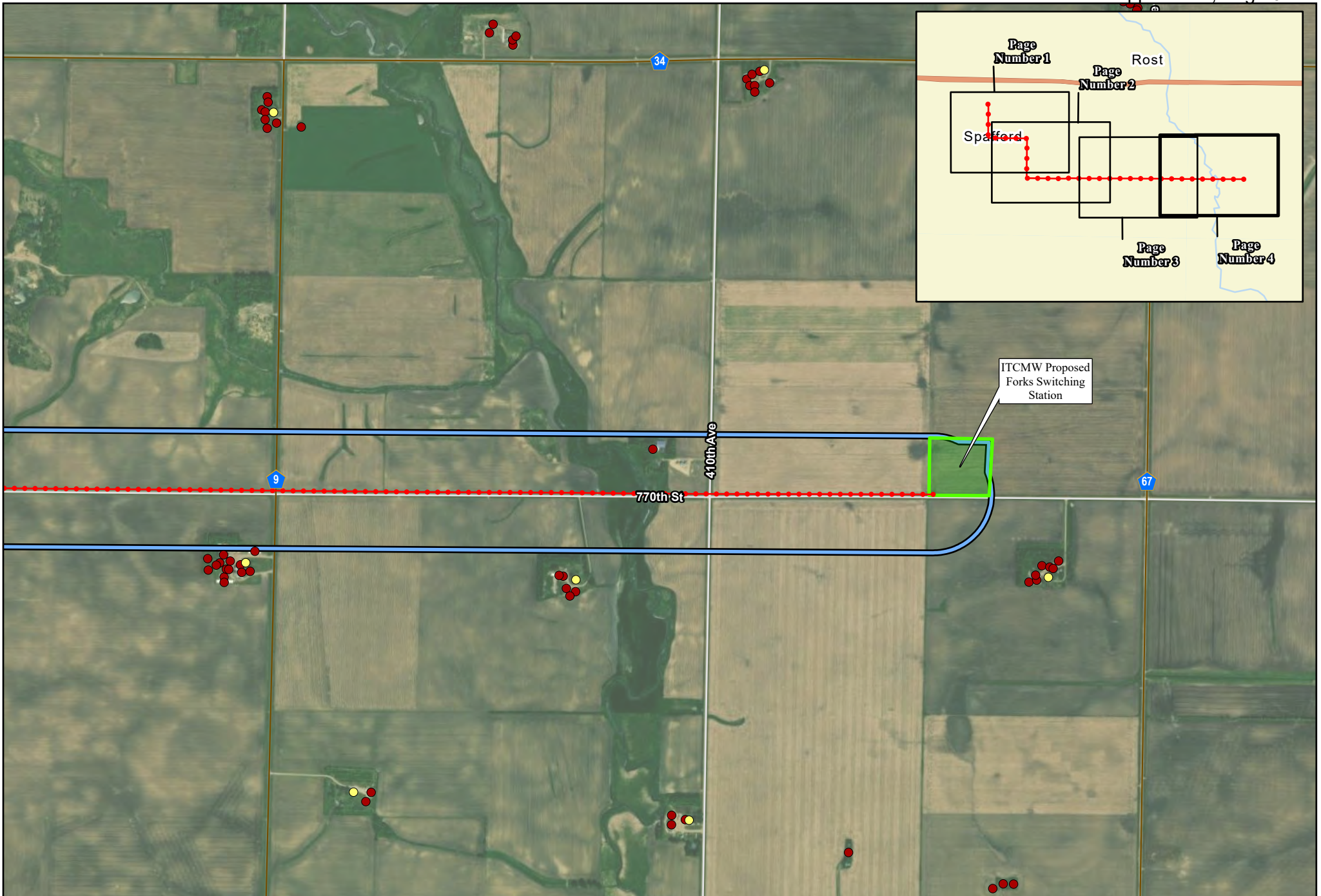
### Map 3 - Displacement Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

Residence	Proposed Route (width = 1,500 feet)
Non-Residence	GRE's Proposed Rost Substation
Proposed Alignment	ITCMW Proposed Forks Switching Station

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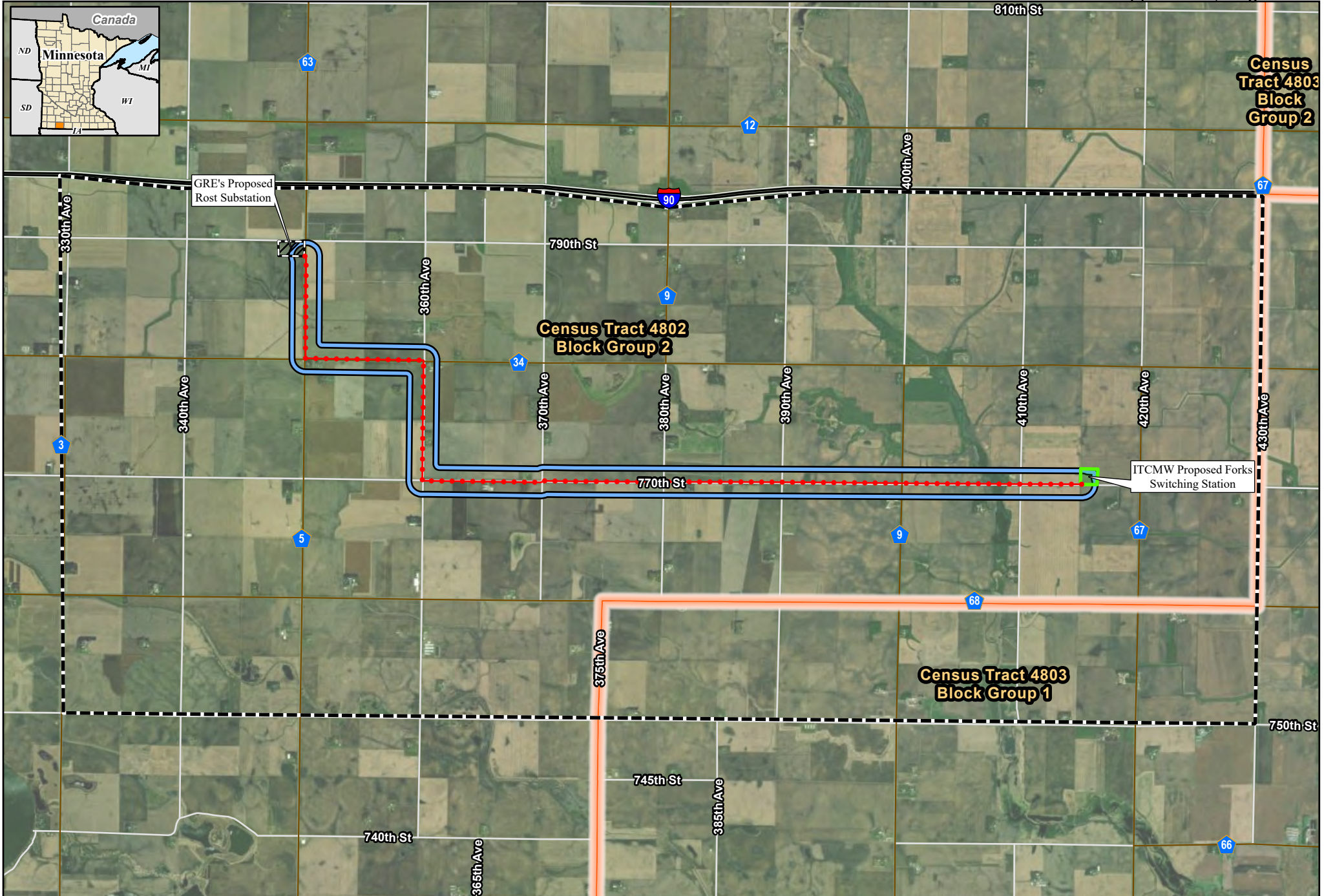
### Map 3 - Displacement Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

- Residence
- Non-Residence
- ⋯ Proposed Alignment
- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station

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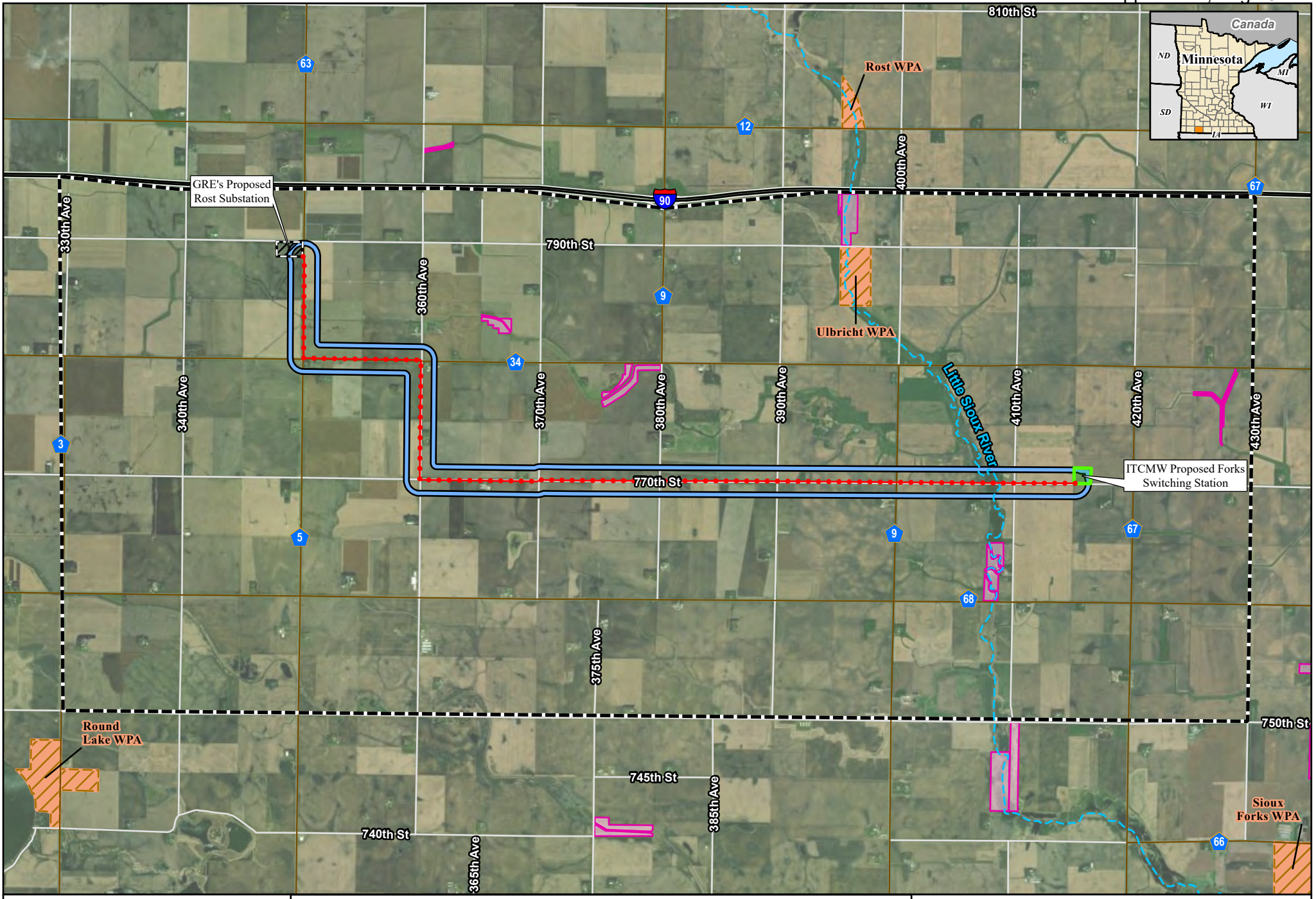
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### Map 4 - US Census Block Groups Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- US Census Block Group (2021)

Date: (6/30/2024) Source: Z:\Cliental\_LU\TC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\_TC\_ForksRost\_RPA.aprx



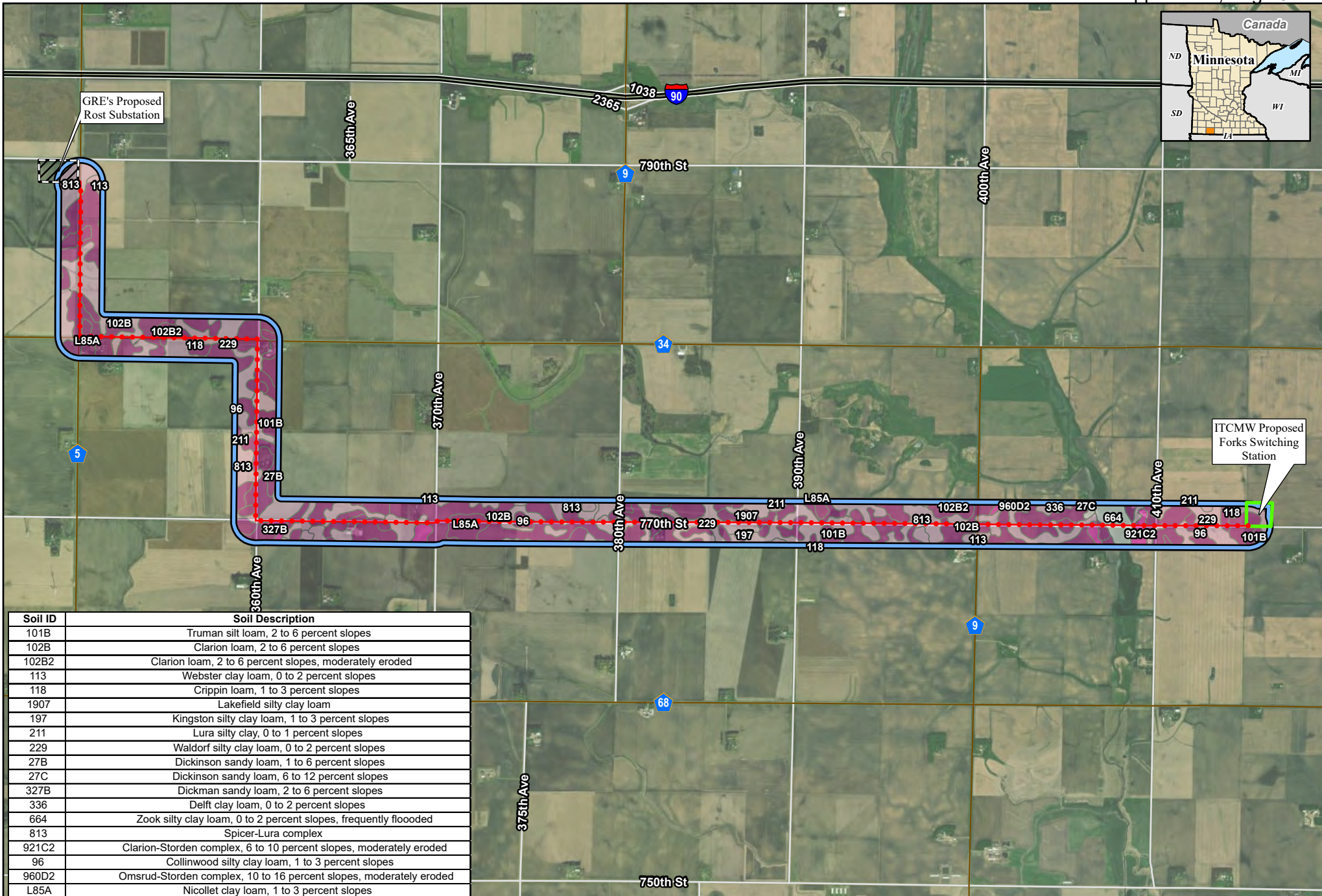
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### Map 5 - Recreation Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- MDNR River/Stream
- USFWS Waterfowl Production Area
- State Funded Conservation Easements (RIM Reserve)



Soil ID	Soil Description
101B	Truman silt loam, 2 to 6 percent slopes
102B	Clarion loam, 2 to 6 percent slopes
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded
113	Webster clay loam, 0 to 2 percent slopes
118	Crippin loam, 1 to 3 percent slopes
1907	Lakefield silty clay loam
197	Kingston silty clay loam, 1 to 3 percent slopes
211	Lura silty clay, 0 to 1 percent slopes
229	Waldorf silty clay loam, 0 to 2 percent slopes
27B	Dickinson sandy loam, 1 to 6 percent slopes
27C	Dickinson sandy loam, 6 to 12 percent slopes
327B	Dickman sandy loam, 2 to 6 percent slopes
336	Delft clay loam, 0 to 2 percent slopes
664	Zook silty clay loam, 0 to 2 percent slopes, frequently flooded
813	Spicer-Lura complex
921C2	Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded
96	Collinwood silty clay loam, 1 to 3 percent slopes
960D2	Omsrud-Storden complex, 10 to 16 percent slopes, moderately eroded
L85A	Nicollet clay loam, 1 to 3 percent slopes

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### Map 6 - Agriculture

## Forks-Rost 161 kV Project

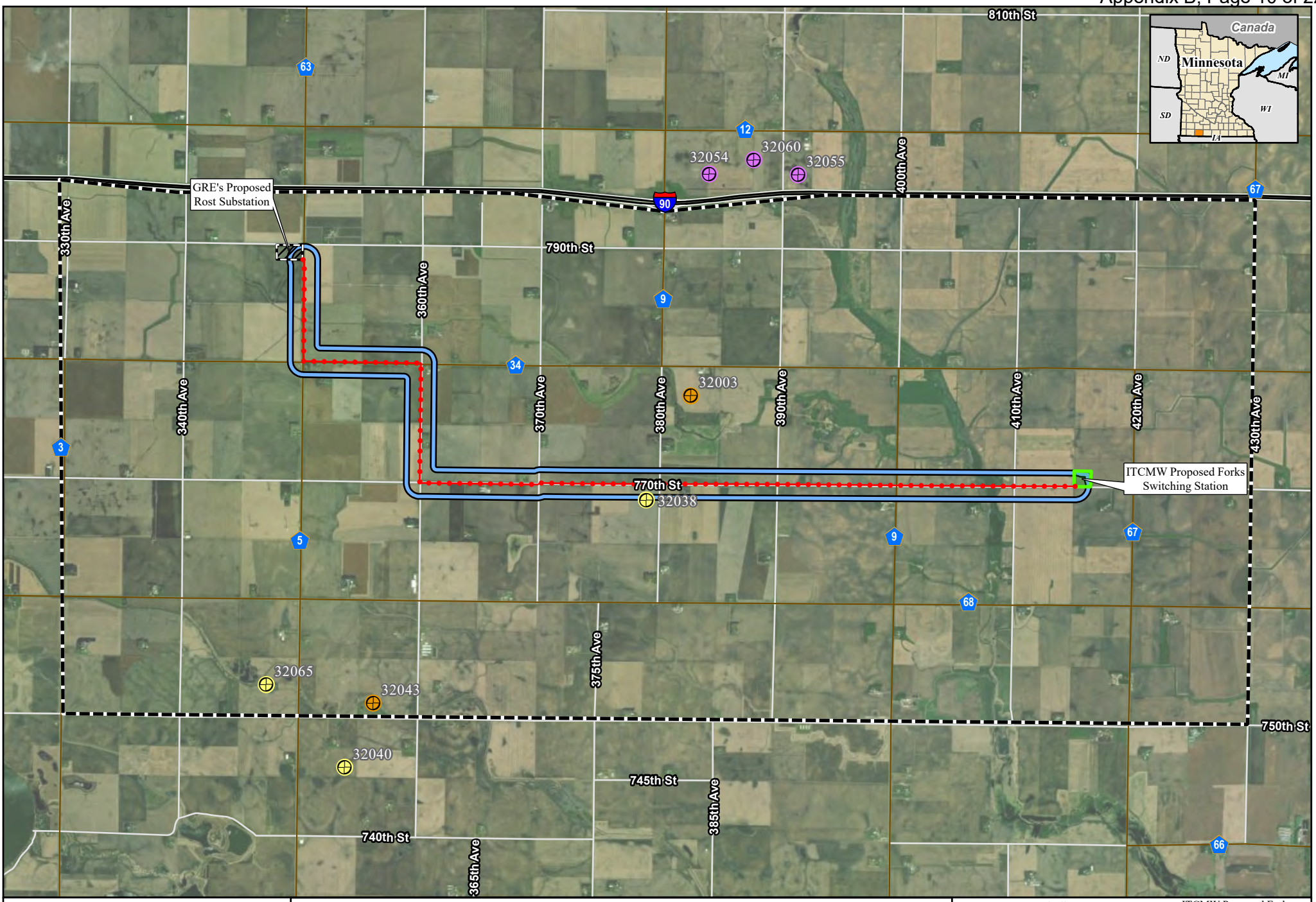
ITC Midwest  
Jackson County, Minnesota

**Proposed Alignment**

- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station

**Farmland Classification (within Proposed Project Route Width)**

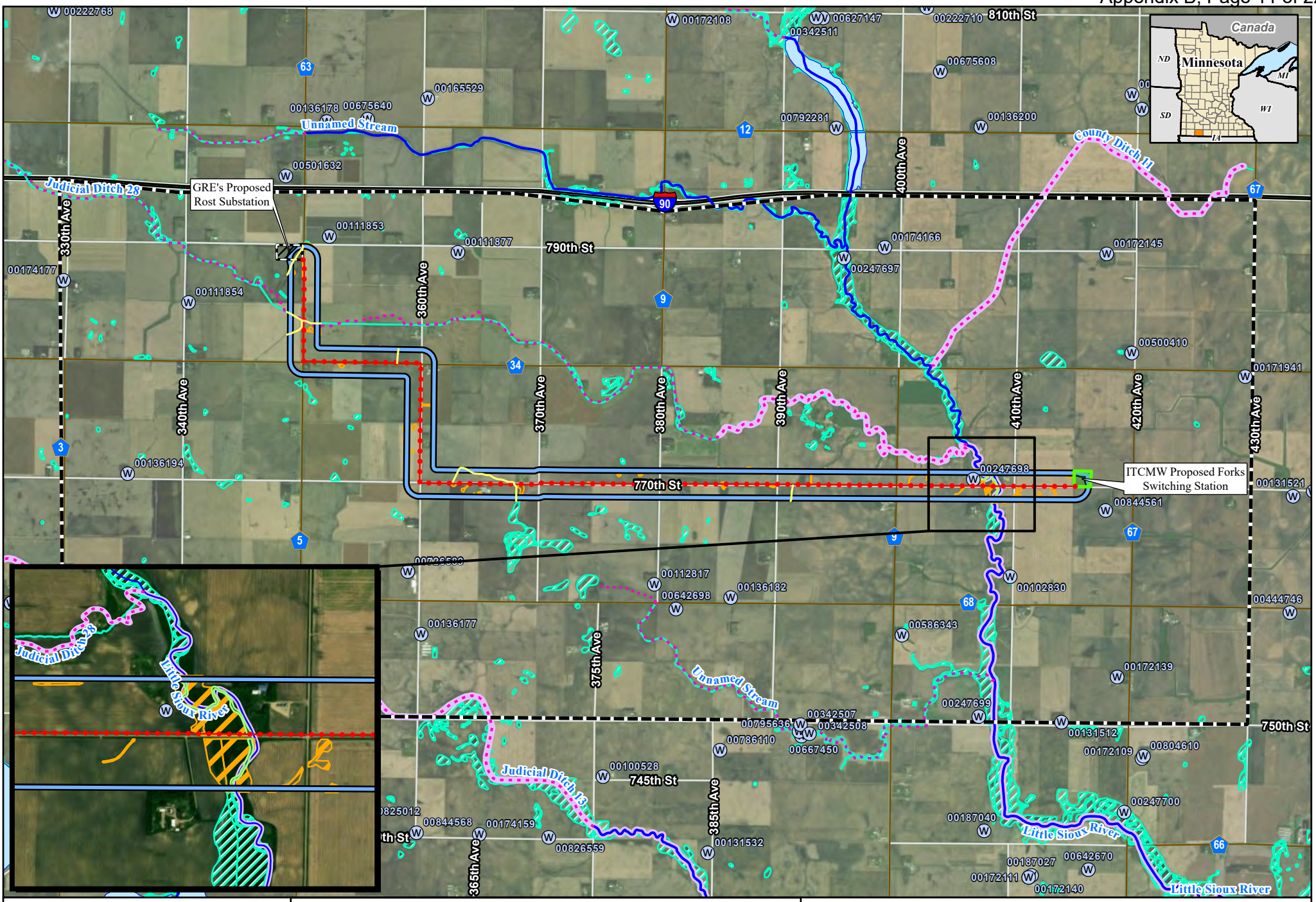
- All areas are prime farmland
- Farmland of statewide importance
- Prime farmland if drained
- Not prime farmland



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### Map 7 - Mining Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- MDOT Gravel Pit**
- Commercial Aggregate
- Inactive Aggregate Source
- Aggregate Pit (Leased by MDOT)



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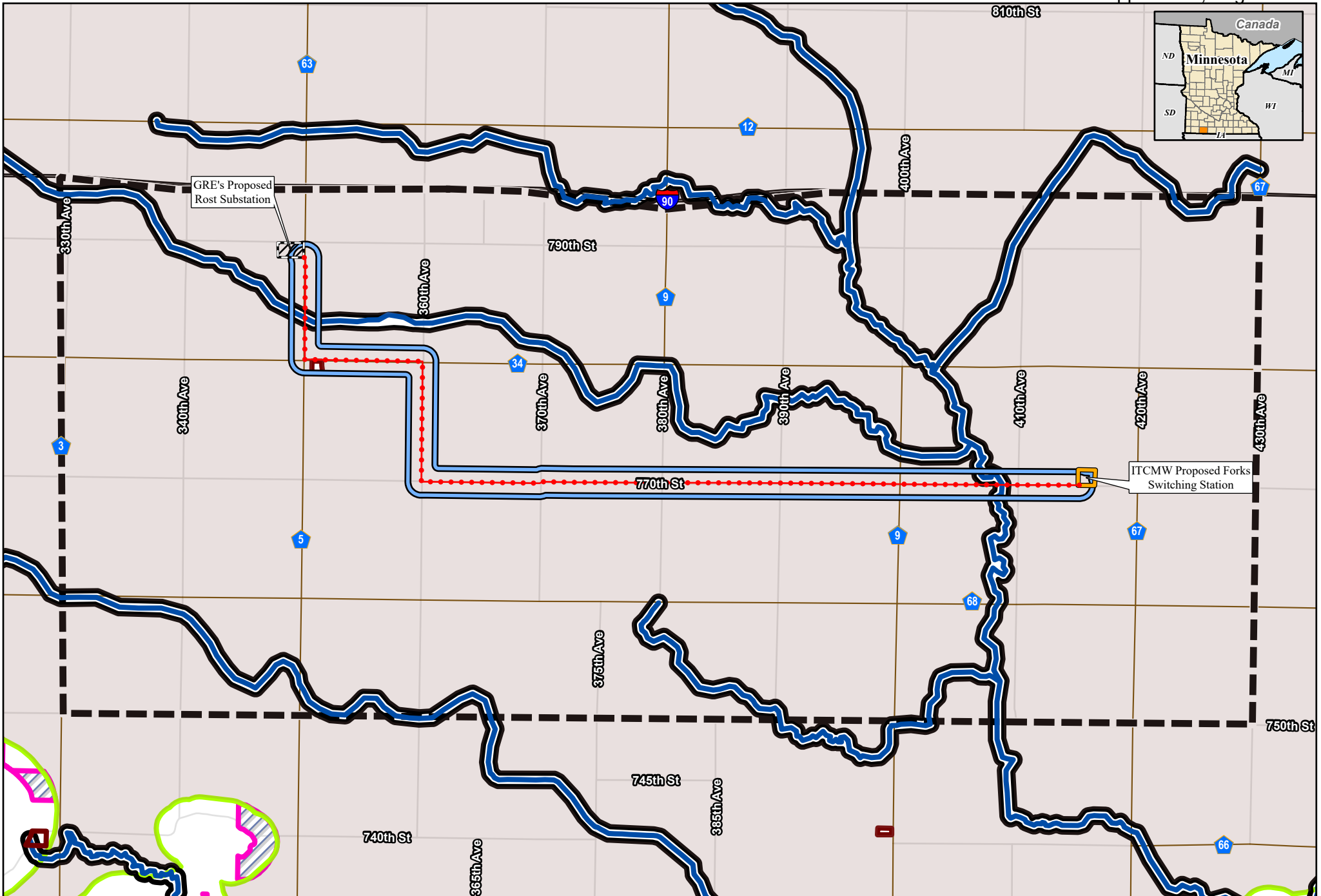
### Map 8 - Hydrologic Features

## Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

- |  |  |                             |
|--|--|-----------------------------|
| Water Well                             | Project Study Area                       | NW1 Wetland                 |
| Proposed Alignment                     | Impaired Stream (Draft 2024)             | Desktop Determined Wetland  |
| Proposed Route (width = 1,500 feet)    | Public Water Watercourse                 | Desktop Determined Stream   |
| ITCMW Proposed Forks Switching Station | Public Ditch/Altered Natural Watercourse | Desktop Determined Waterway |
|  | Public Waters Basin                      |                             |

Date: (9/30/2024) Source: Z:\Client\LU\ITC\Forks\_Rost\ArcGIS\Permitting\StateRoute\_Permit\TC\_ForksRost\_RPA.aprx



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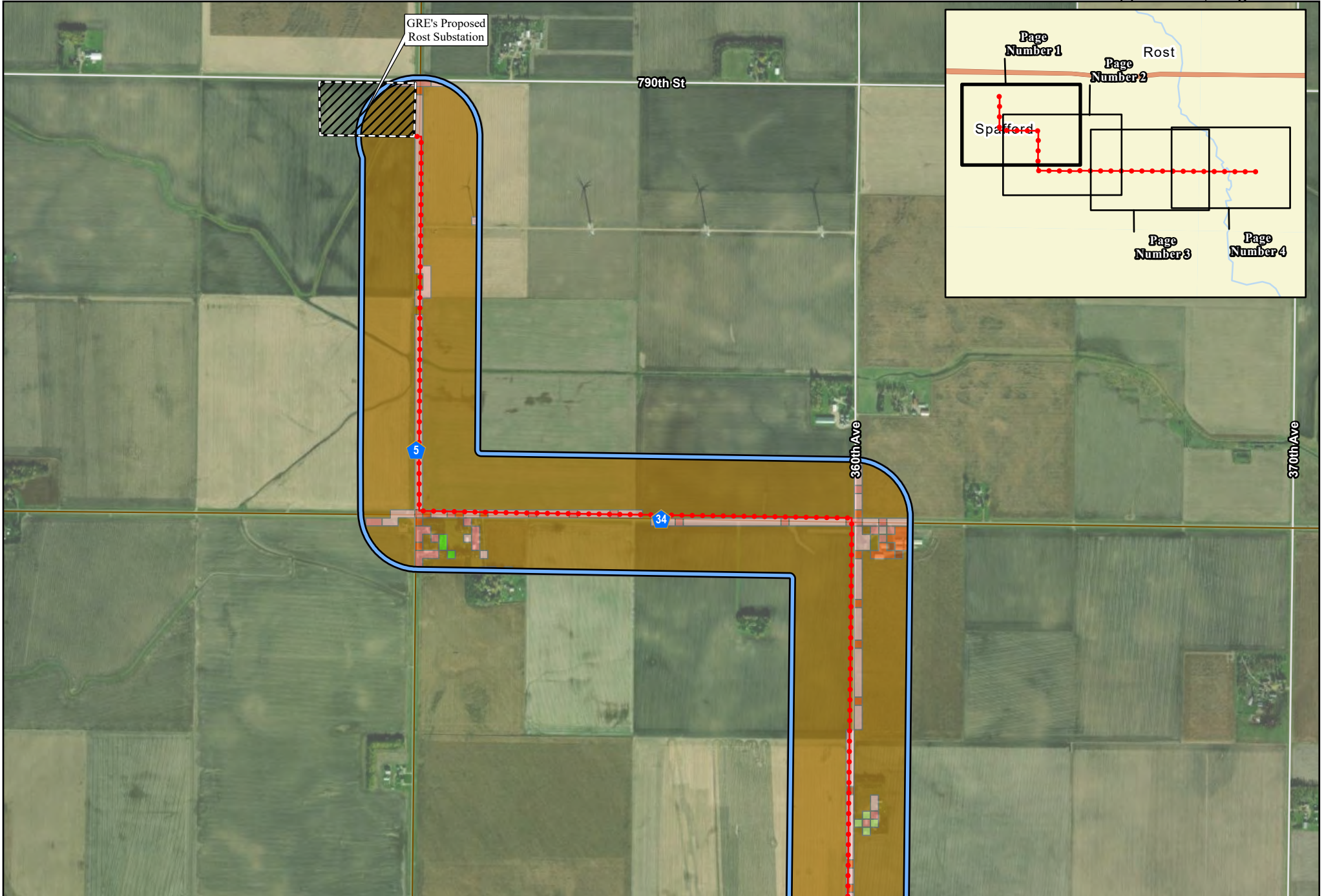

### Map 9 - Jackson County Zoning Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota


- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Zoning**
- Protected Stream
- Agriculture
- General Business
- Protected Waters
- Shoreland Natural Environment
- Special Protection District

Date: 1/22/2024 Source: z:\Chemical\_LUTCForks\_Rost\ArcGIS\Permitting\StateRoute\_Permit\ITC\_ForksRost\_LRPA.aprx



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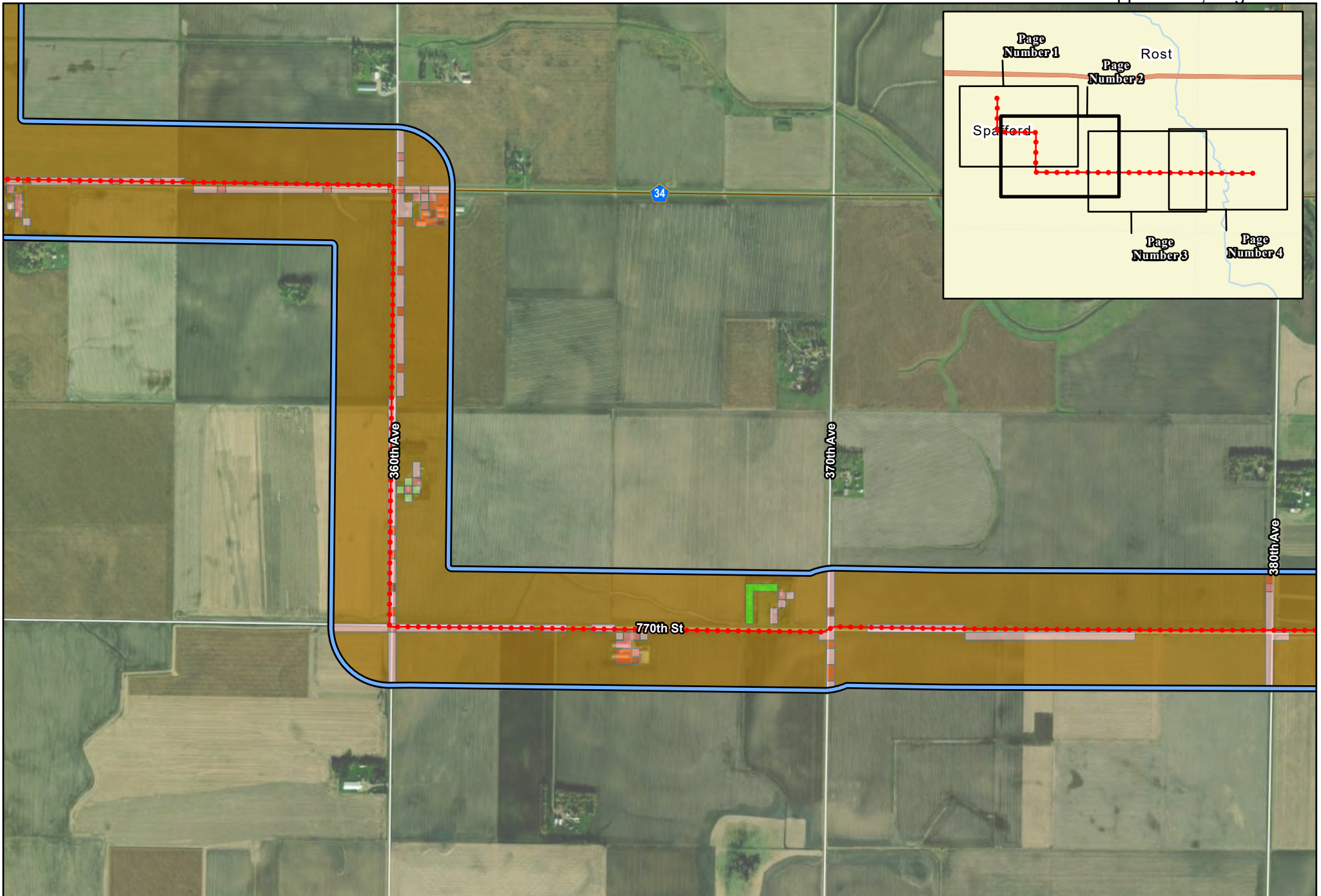


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### Map 10 - Land Cover Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

Proposed Alignment	NLCD Land Cover (within Project Route Width)	Developed, High Intensity	Developed, Open Space
Proposed Route (width = 1,500 feet)	Barren Land	Developed, Low Intensity	Herbaceous
GRE's Proposed Rost Substation	Cultivated Crops	Developed, Medium Intensity	Mixed Forest

Date: (6/30/2024) Source: Z:\Client\LU\ITC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\ITC\_ForksRost\_RPA.aprx



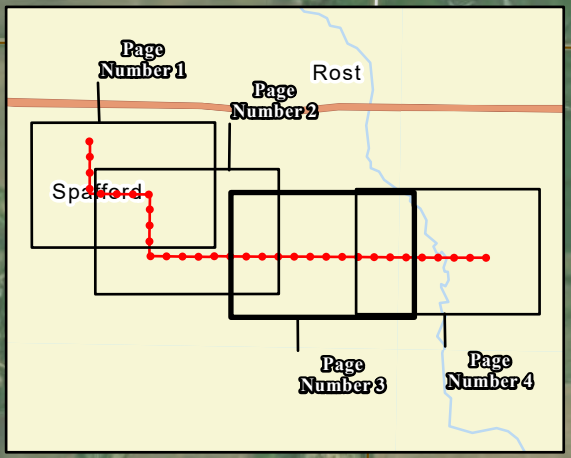
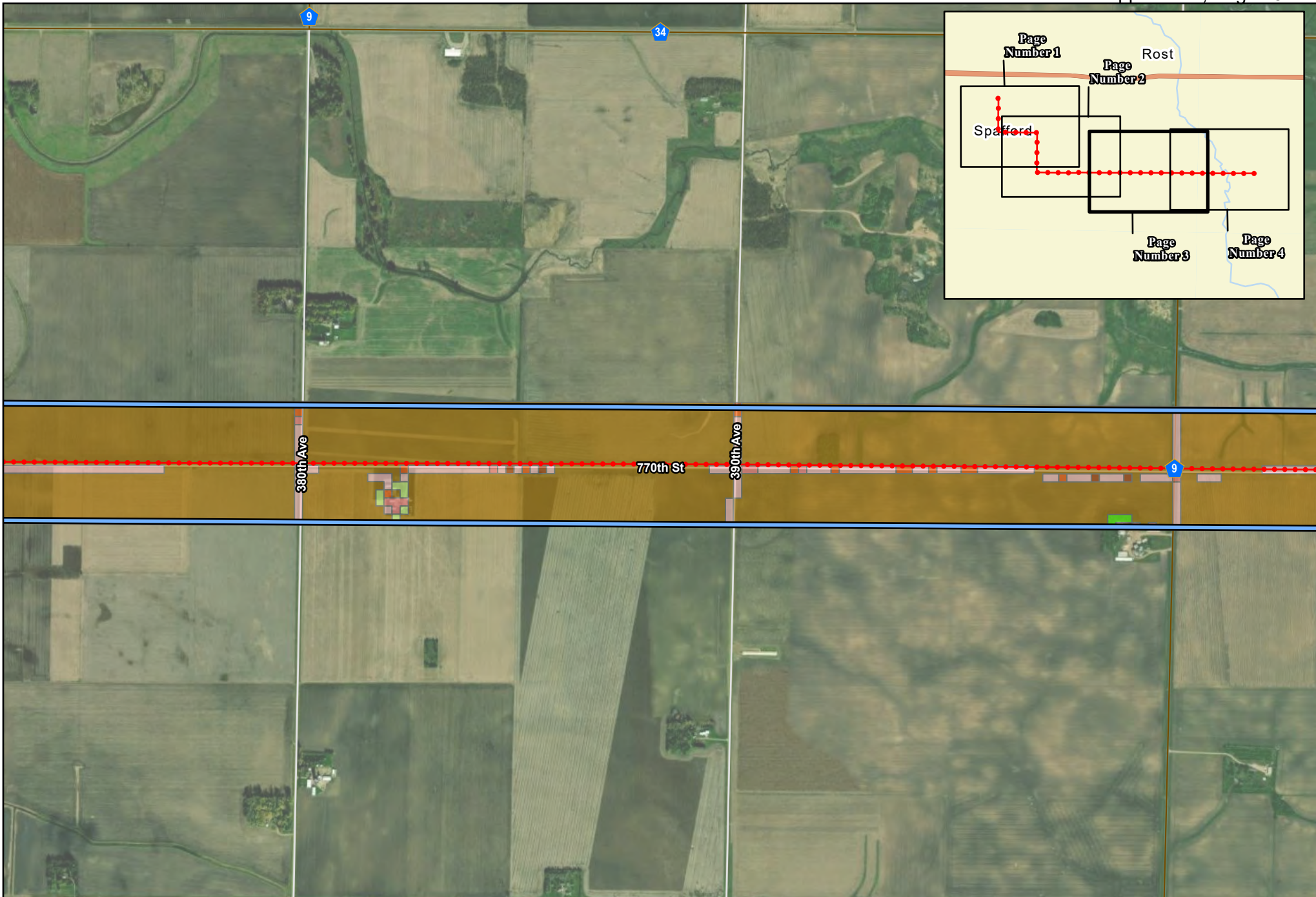
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### Map 10 - Land Cover

## Forks-Rost 161 kV Project

ITC Midwest  
Jackson County, Minnesota

Proposed Alignment	<b>NLCD Land Cover (within Project Route Width)</b>	Developed, High Intensity	Developed, Open Space
Proposed Route (width = 1,500 feet)	Barren Land	Developed, Low Intensity	Herbaceous
	Cultivated Crops	Developed, Medium Intensity	Mixed Forest

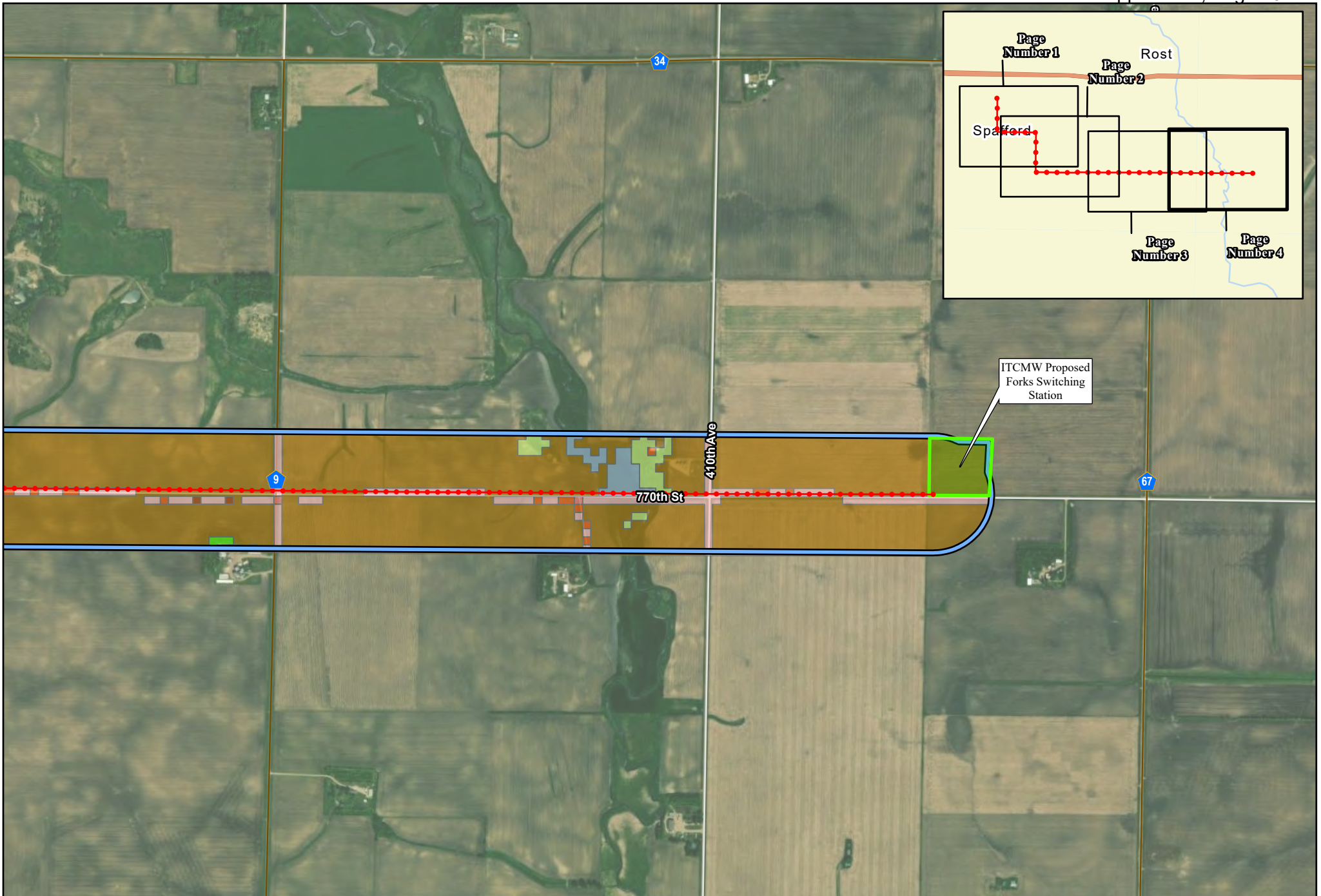


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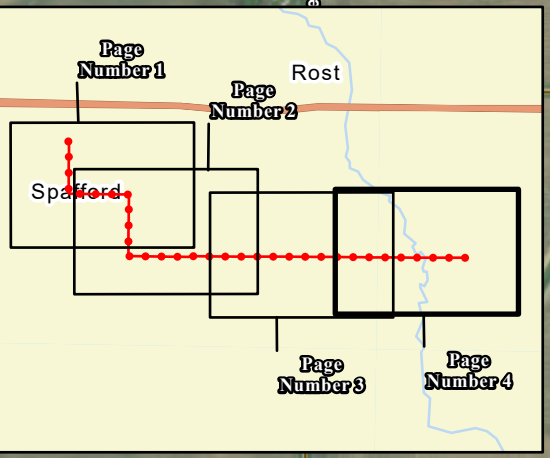
### Map 10 - Land Cover Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

Proposed Alignment	<b>NLCD Land Cover (within Project Route Width)</b>	Developed, Low Intensity	Developed, Open Space
Proposed Route (width = 1,500 feet)	Cultivated Crops	Developed, Medium Intensity	Herbaceous
	Developed, High Intensity	Mixed Forest	

Date: (6/30/2024) Source: Z:\Client\LU\ITC\Forks\_Rost\ArcGIS\Permitting\StateRoute\_Permit\ITC\_ForksRost\_RPA.aprx



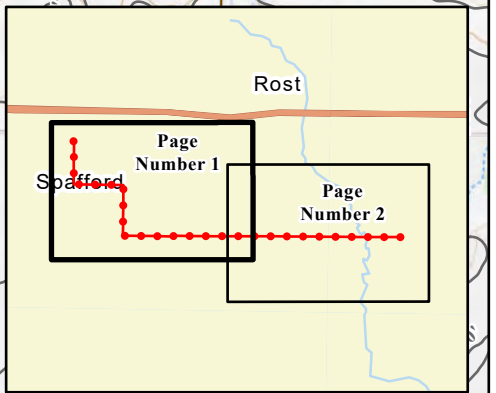
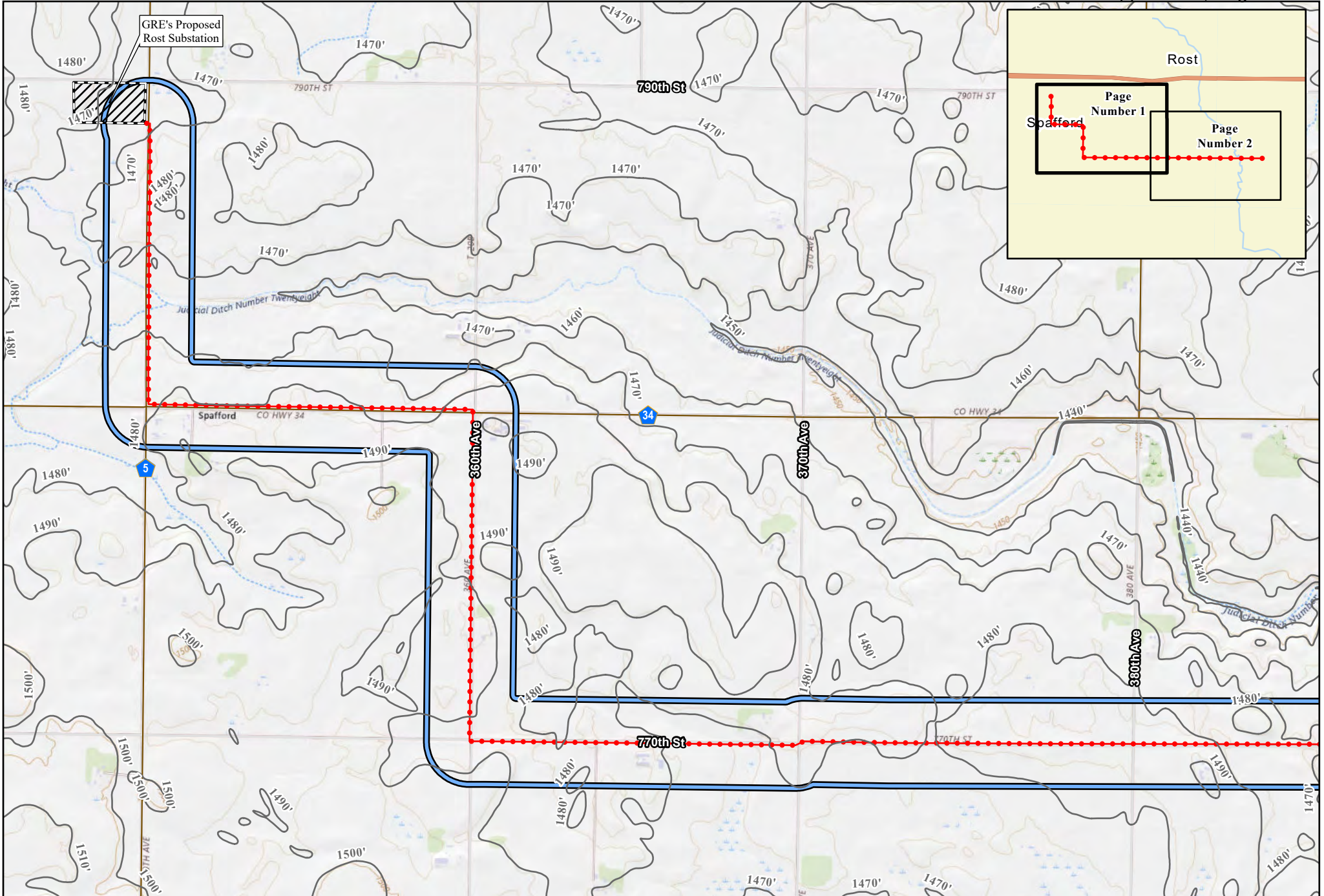
ITCMW Proposed  
Forks Switching  
Station



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**Map 10 - Land Cover**  
**Forks-Rost 161 kV Project**  
 ITC Midwest  
 Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- ITCMW Proposed Forks Switching Station
- NLCD Land Cover (within Project Route Width)**
- Cultivated Crops
- Developed, High Intensity
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, Open Space
- Emergent Herbaceous Wetlands
- Herbaceous
- Mixed Forest



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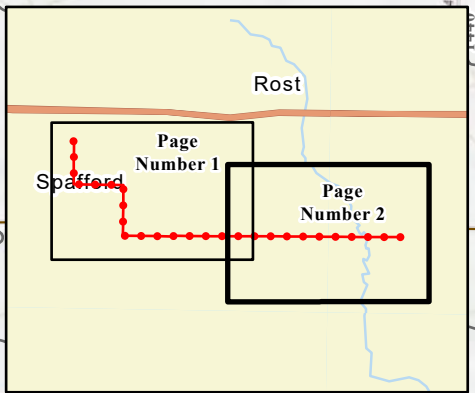
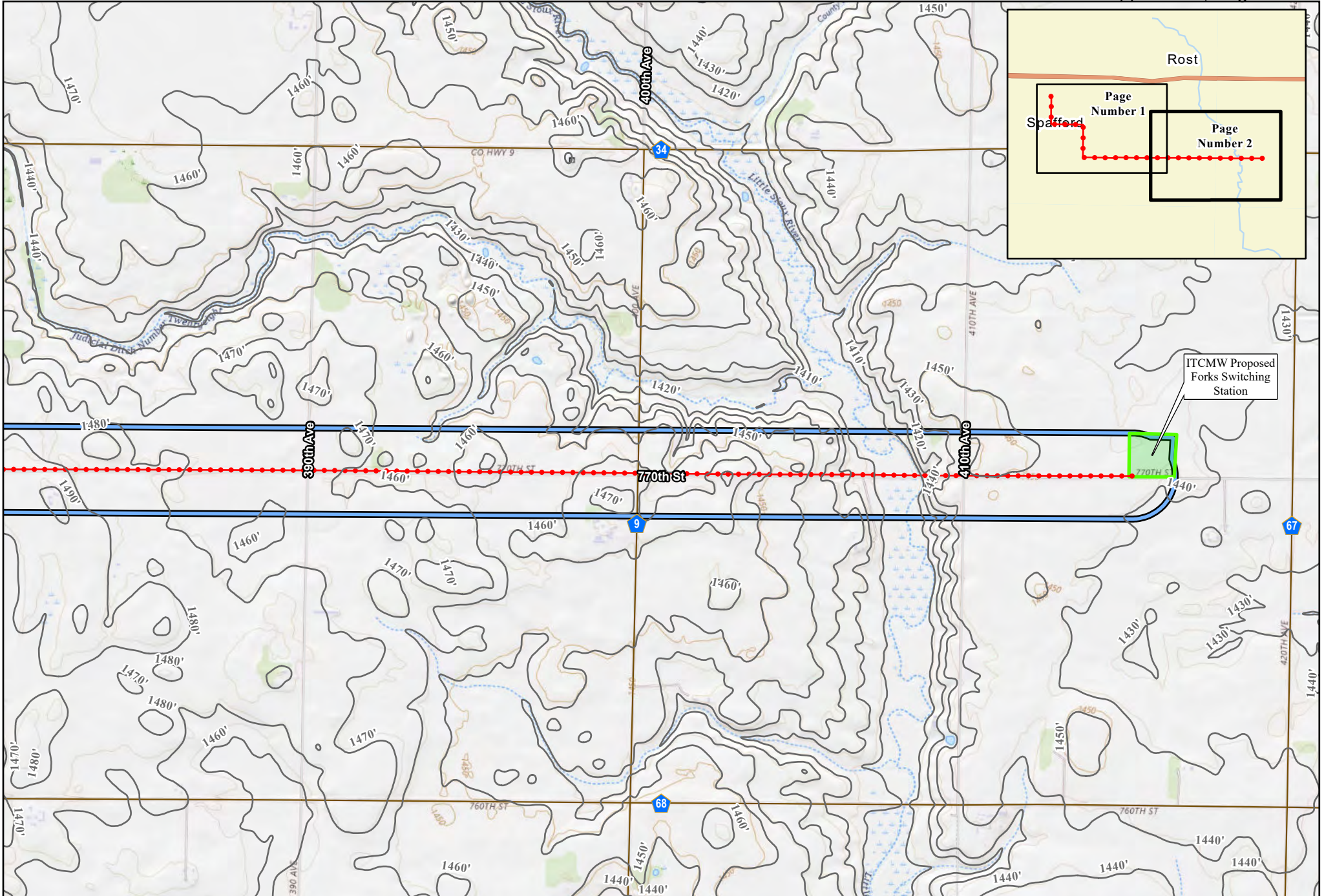
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**Map 11 - Topographic Map**  
**Forks-Rost 161 kV Project**  
 ITC Midwest  
 Jackson County, Minnesota

- Proposed Alignment (width = 1,500 feet)
- Proposed Route
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- 10ft Contour

Date: (03/02/2024) Source: Z:\Client\LUIC\Forks\_Rost\ArcGIS\Permitting\StateRoute\_Permit\TC\_ForksRost\_RPA.aprx



ITCMW Proposed Forks Switching Station

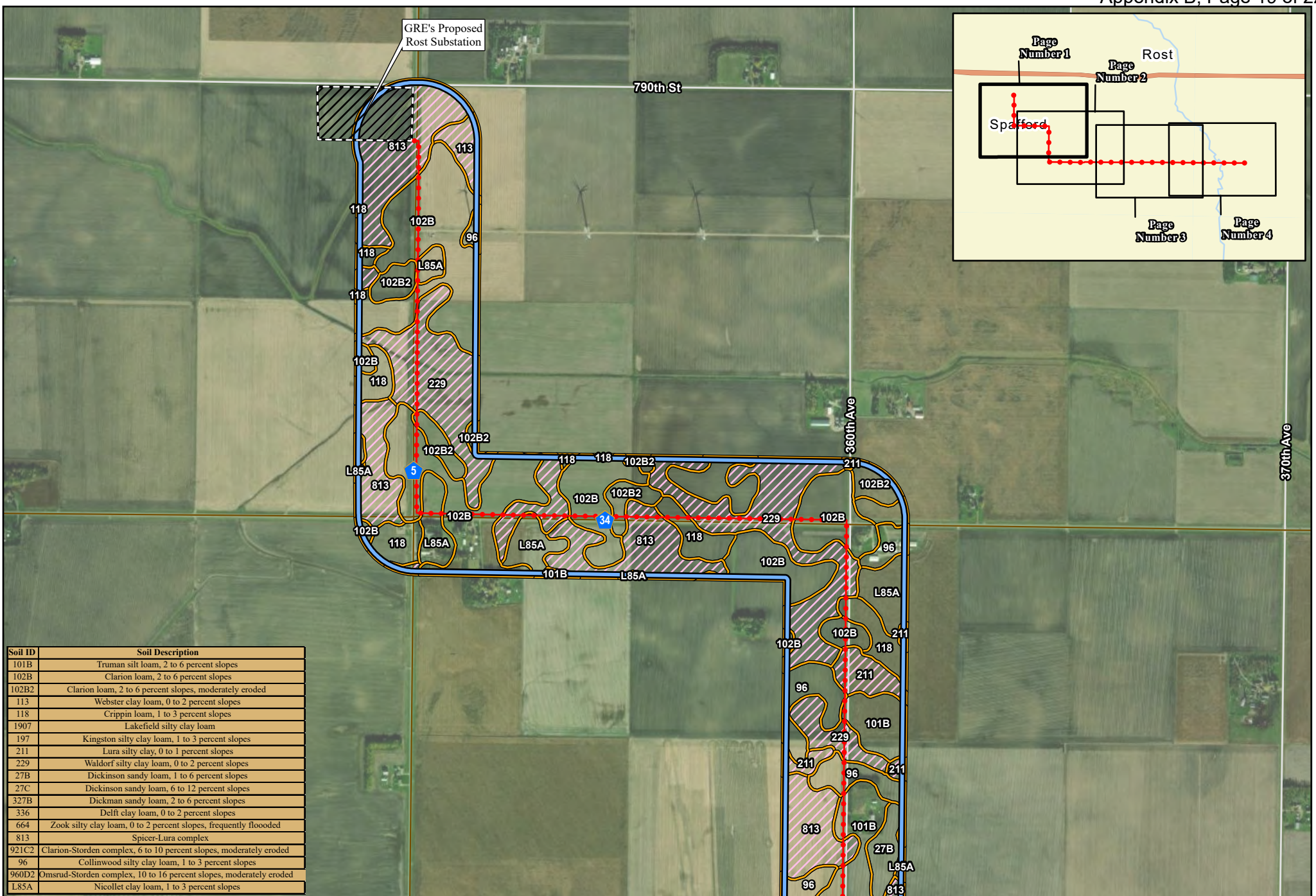
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**Map 11 - Topographic Map**  
**Forks-Rost 161 kV Project**  
 ITC Midwest  
 Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- Project Study Area
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- 10ft Contour

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Date: (6/30/2024) Source: Z:\Client\1\_UIC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\Forks\_Rost\_RPA.aprx



Soil ID	Soil Description
101B	Truman silt loam, 2 to 6 percent slopes
102B	Clarion loam, 2 to 6 percent slopes
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded
113	Webster clay loam, 0 to 2 percent slopes
118	Crippin loam, 1 to 3 percent slopes
1907	Lakefield silty clay loam
197	Kingston silty clay loam, 1 to 3 percent slopes
211	Lura silty clay, 0 to 1 percent slopes
229	Waldorf silty clay loam, 0 to 2 percent slopes
27B	Dickinson sandy loam, 1 to 6 percent slopes
27C	Dickinson sandy loam, 6 to 12 percent slopes
327B	Dickman sandy loam, 2 to 6 percent slopes
336	Delft clay loam, 0 to 2 percent slopes
664	Zook silty clay loam, 0 to 2 percent slopes, frequently flooded
813	Spicer-Lura complex
921C2	Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded
96	Collinwood silty clay loam, 1 to 3 percent slopes
960D2	Omsrud-Storden complex, 10 to 16 percent slopes, moderately eroded
L85A	Nicollet clay loam, 1 to 3 percent slopes

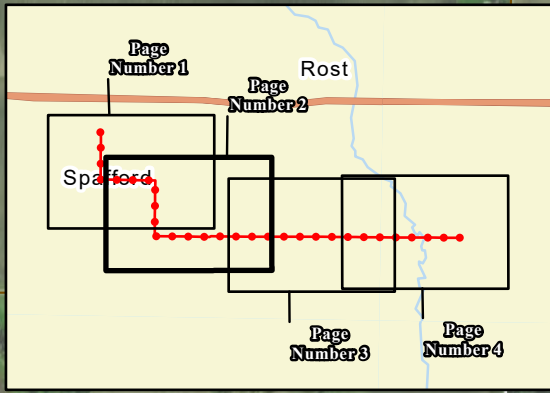
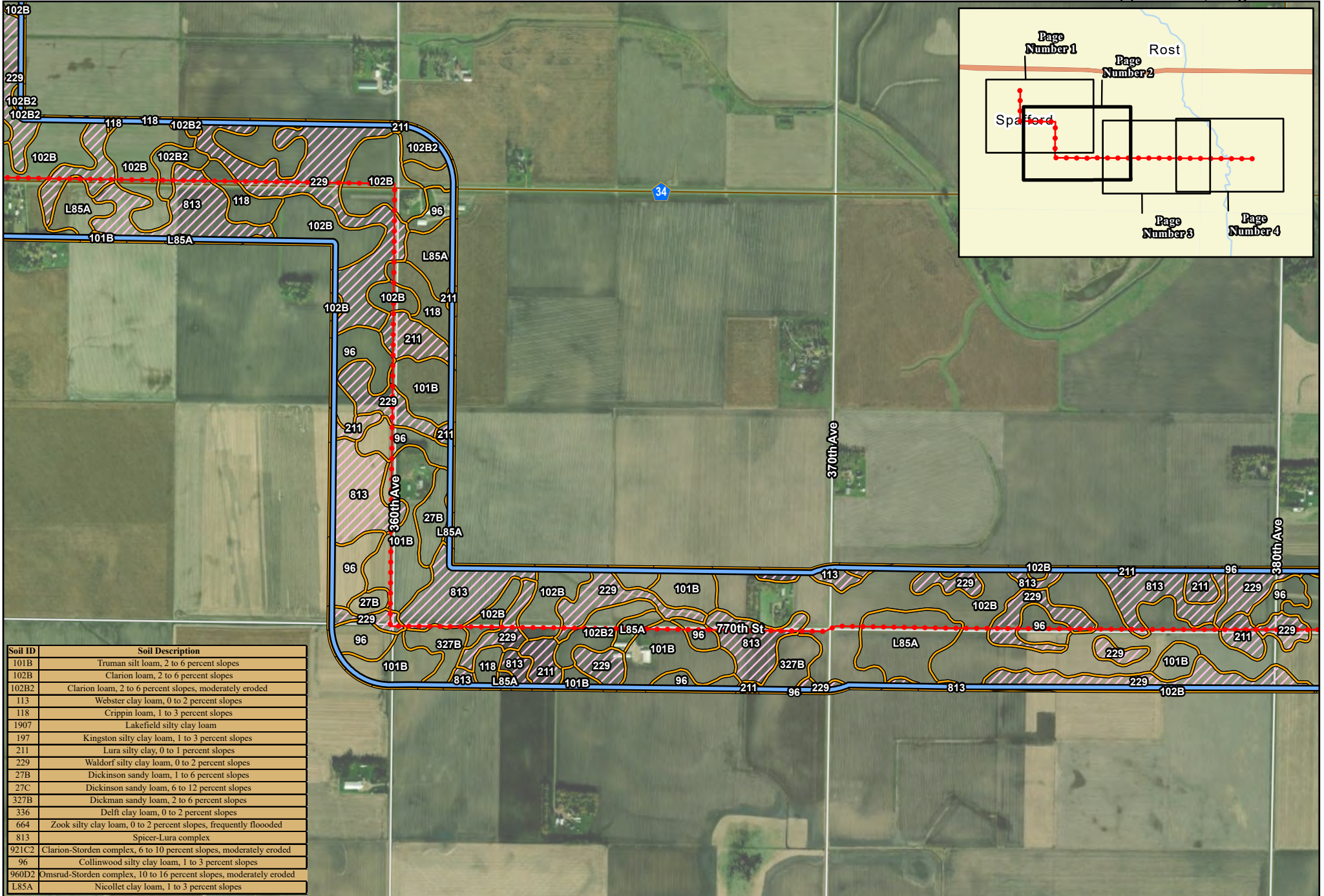
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### Map 12 - SSURGO Soils Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Soils within the Proposed Project Route Width
- Hydric Soil

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Date: (6/30/2024)



Soil ID	Soil Description
101B	Truman silt loam, 2 to 6 percent slopes
102B	Clarion loam, 2 to 6 percent slopes
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded
113	Webster clay loam, 0 to 2 percent slopes
118	Crippin loam, 1 to 3 percent slopes
1907	Lakefield silty clay loam
197	Kingston silty clay loam, 1 to 3 percent slopes
211	Lura silty clay, 0 to 1 percent slopes
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960D2	Omsrud-Storden complex, 10 to 16 percent slopes, moderately eroded
L85A	Nicollet clay loam, 1 to 3 percent slopes

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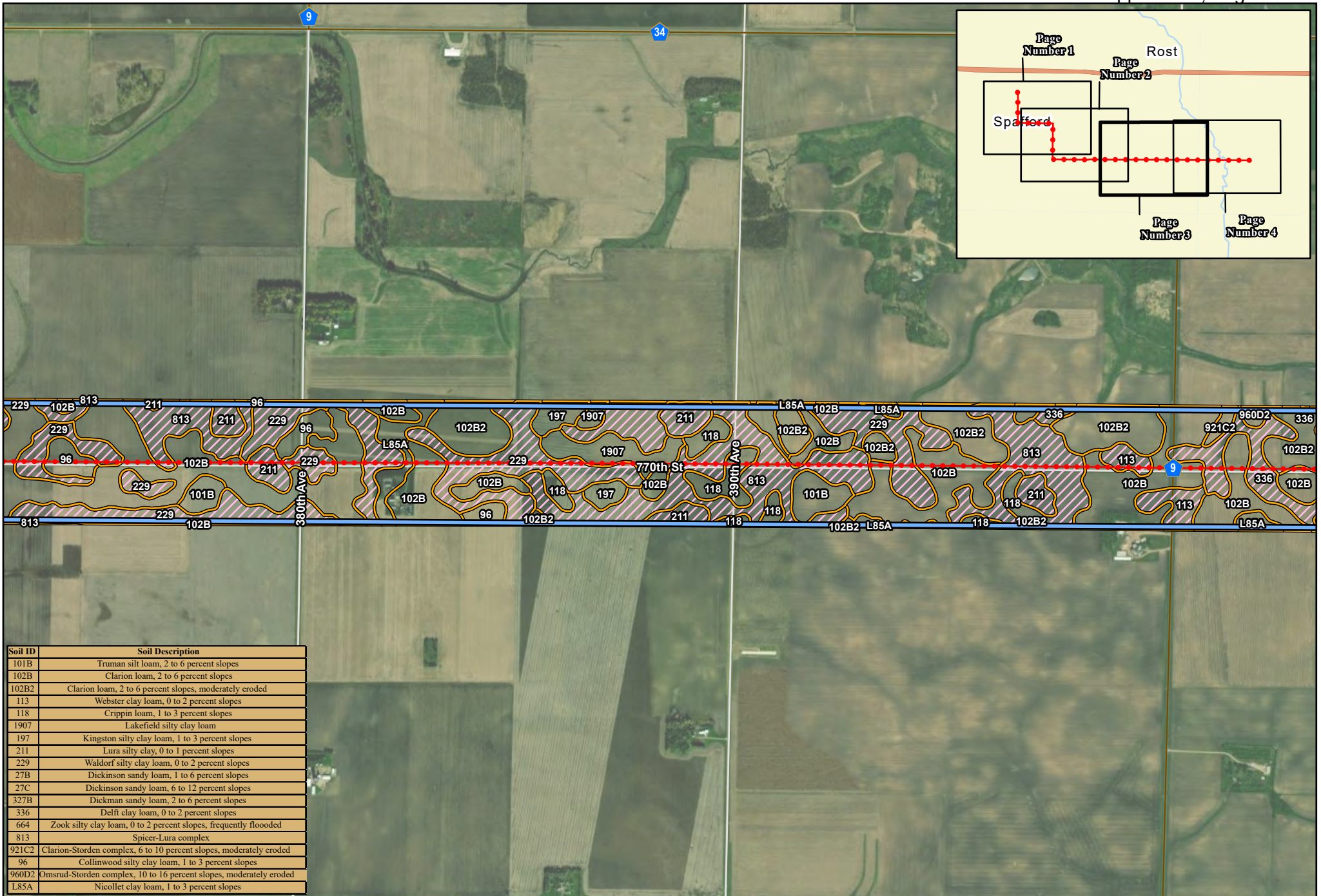
### Map 12 - SSURGO Soils Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Soils within the Proposed Project Route Width
- Hydric Soil

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Date: (6/30/2024) Source: Z:\Client\1\_LITC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\ITC\_ForksRost\_RIP.aprx





Soil ID	Soil Description
101B	Truman silt loam, 2 to 6 percent slopes
102B	Clarion loam, 2 to 6 percent slopes
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded
113	Webster clay loam, 0 to 2 percent slopes
118	Crippin loam, 1 to 3 percent slopes
1907	Lakefield silty clay loam
197	Kingston silty clay loam, 1 to 3 percent slopes
211	Lura silty clay, 0 to 1 percent slopes
229	Waldorf silty clay loam, 0 to 2 percent slopes
27B	Dickinson sandy loam, 1 to 6 percent slopes
27C	Dickinson sandy loam, 6 to 12 percent slopes
327B	Dickman sandy loam, 2 to 6 percent slopes
336	Delft clay loam, 0 to 2 percent slopes
664	Zook silty clay loam, 0 to 2 percent slopes, frequently flooded
813	Spicer-Lura complex
921C2	Clarion-Storden complex, 6 to 10 percent slopes, moderately eroded
96	Collinwood silty clay loam, 1 to 3 percent slopes
960D2	Omsrud-Storden complex, 10 to 16 percent slopes, moderately eroded
L85A	Nicollet clay loam, 1 to 3 percent slopes

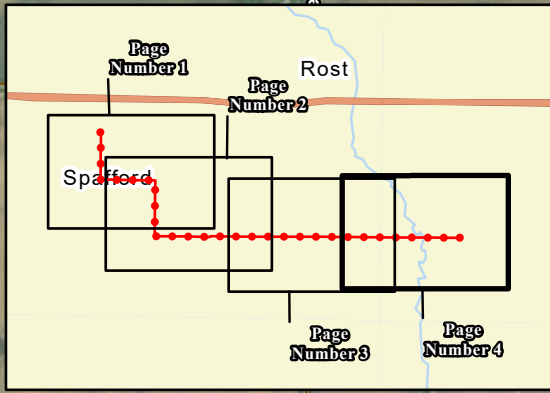
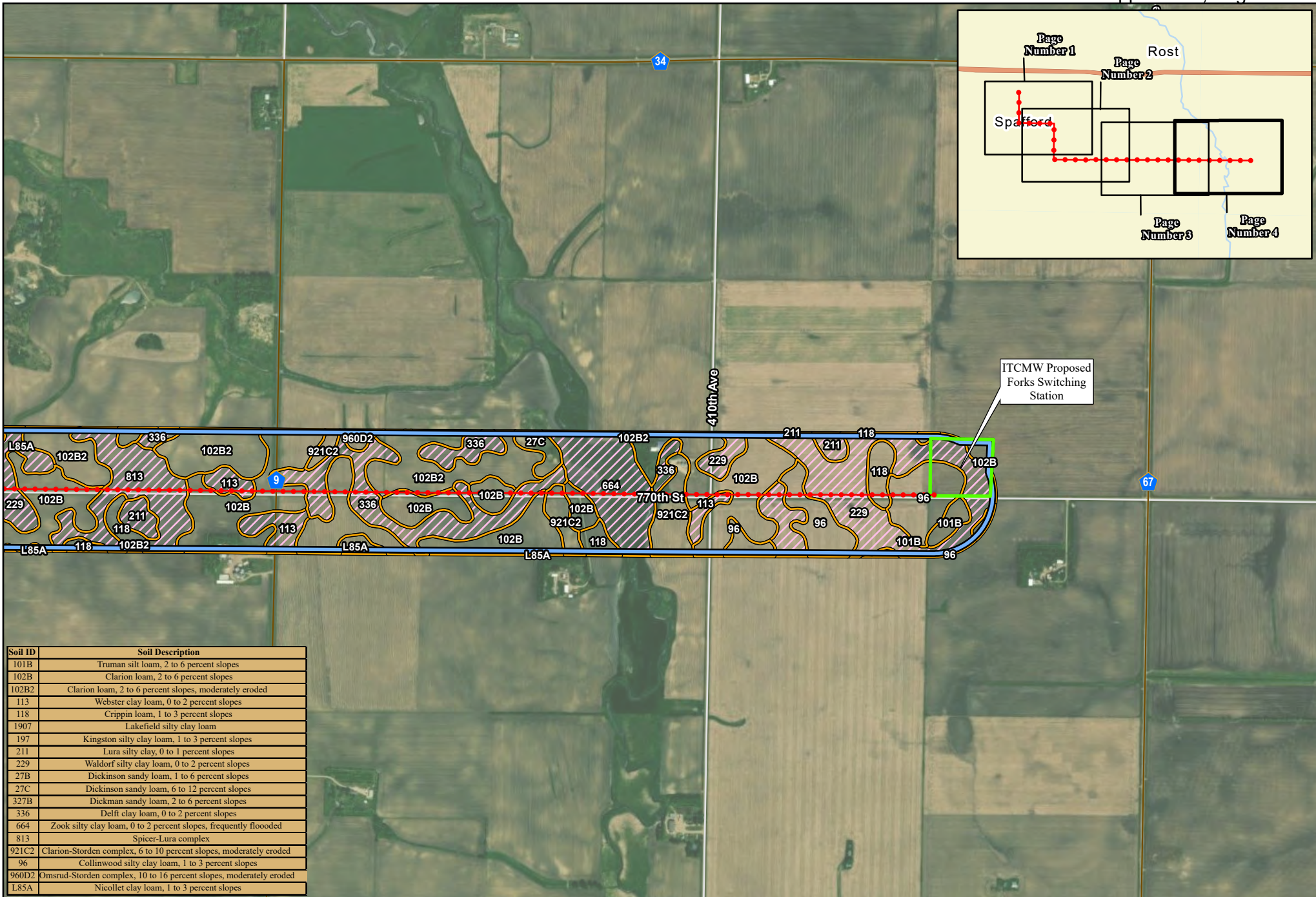
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### Map 12 - SSURGO Soils Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Soils within the Proposed Project Route Width
- Hydric Soil

For Environmental Review Purposes Only

Source: Z:\Client\LU\ITC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\TC\_ForksRost\_RPA.aprx Date: (6/30/2024)



ITCMW Proposed Forks Switching Station

Soil ID	Soil Description
101B	Truman silt loam, 2 to 6 percent slopes
102B	Clarion loam, 2 to 6 percent slopes
102B2	Clarion loam, 2 to 6 percent slopes, moderately eroded
113	Webster clay loam, 0 to 2 percent slopes
118	Crippin loam, 1 to 3 percent slopes
1907	Lakefield silty clay loam
197	Kingston silty clay loam, 1 to 3 percent slopes
211	Lura silty clay, 0 to 1 percent slopes
229	Waldorf silty clay loam, 0 to 2 percent slopes
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0 750 1,500 Feet  
1:18,000

### Map 12 - SSURGO Soils Forks-Rost 161 kV Project ITC Midwest Jackson County, Minnesota

- Proposed Alignment
- Proposed Route (width = 1,500 feet)
- GRE's Proposed Rost Substation
- ITCMW Proposed Forks Switching Station
- Soils within the Proposed Project Route Width
- Hydric Soil

For Environmental Review Purposes Only

Date: (6/30/2024) Source: Z:\Client\LU\TC\Forks\_Rost\GIS\Permitting\StateRoute\_Permit\TC\_ForksRost\_RPA.aprx

## **Appendix C**

### **90-Day Pre-Application Letter to Local Units of Government**





November 20, 2023

**VIA U.S. Mail**

**Re: Notice of Availability for Meeting: Minn. Stat § 216E.03, subd. 3a**

*In the Matter of the Application of ITC Midwest for a Route Permit for the Forks 161 Kilovolt Switching Station and Forks-Rost 161 Kilovolt Transmission Line Project.*

Dear Local Government Official,

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

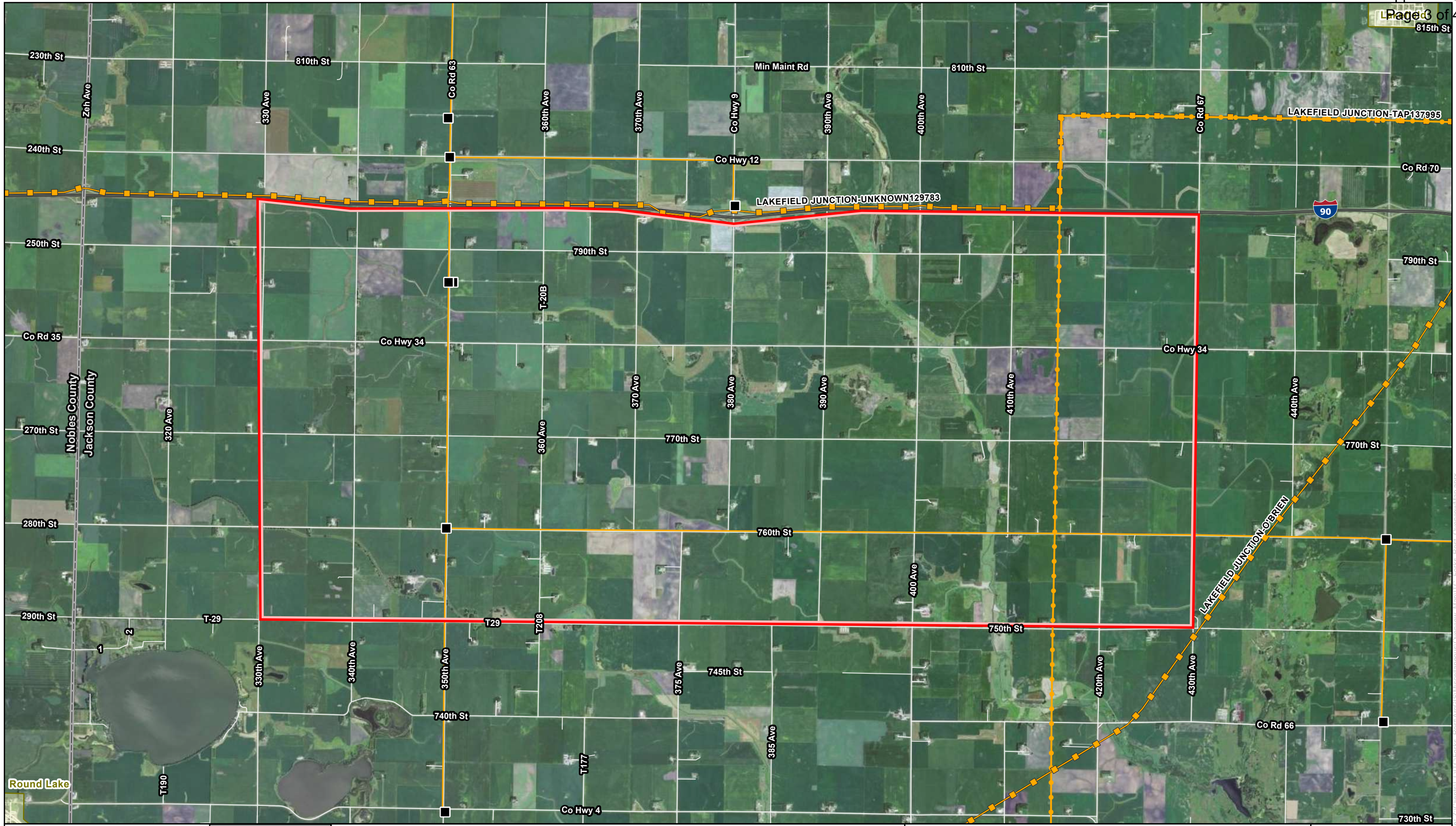
The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed to the transmission system for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage conditions when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost 161 kV transmission line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure). ITC plans to begin construction of the Project in the second quarter of 2026.

The Project will require a Route Permit from the Minnesota Public Utilities Commission (Commission). Commission approval must be obtained before the Project can be built. ITC plans to submit a Route Permit Application to the Commission in or around June 2024. As part of this process, ITC has started gathering stakeholder, agency, tribal, and public input on the Project through letters, meetings, and open houses. Minn. Stat. § 216E.03, subd. 3b provides local units of government the opportunity to request a consultation meeting regarding the proposed Project prior to the submission of a Route Permit application to the Commission. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbroghammer@itctransco.com](mailto:lbroghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest



0 2,500 5,000 Feet  
1 inch = 5,000 feet

For Environmental Review Purposes Only

### Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project ITC

Project Location  
Jackson County, Minnesota

- Project Study Area
- County Boundary
- Municipal Boundary
- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV



Source: Z:\Clients\T11\T11\_Coronas\_Rost\ArGIS\Miscellaneous\Overview\_Map\T11\_C\_Coronas\_Rost\_Overview\_Map.aprx  
Date: 7/26/2023

**FORKS-ROST 90-DAY LGU NOTICE CONTACT LIST**

ORGANIZ	NAME	ADDRESS	CITY	STATE	ZIP CODE
<b>County Commissioners</b>					
Jackson County	Scottt McClure	Commissioner (1st District)	405 4th St	Jackson	MN 56143
Jackson County	Don Wachal	Commissioner (2nd District)	405 4th St	Jackson	MN 56143
Jackson County	Roger D. Pohlman	Commissioner (3rd District)	405 4th St	Jackson	MN 56143
Jackson County	Phil Nasby	Commissioner (4th District)	405 4th St	Jackson	MN 56143
Jackson County	James Eigenberg	Commissioner (5th District)	405 4th St	Jackson	MN 56143
<b>County Agencies</b>					
Jackson County	Ryan Krosch	Administrator	405 Fourth Street	Jackson	MN 56143
Jackson County	Dan Bartosh	Land Management Director/LGU for WCA	603 South Hwy 86	Lakefield	MN 56150
Jackson County	Val Cihak	Land Management Coordinator	603 South Hwy 86	Lakefield	MN 56150
Jackson County	Tim Stahl	County Engineer	53053 780th Street	Jackson	MN 56143
Jackson County Soil & Water Conservation District	Larry Hansen	Board Chairman	603 South Hwy. 86	Lakefield	MN 55150
<b>Cities</b>					
City of Lakefield	Stacy Anderson	City Clerk	P.O. Box 900	Lakefield	MN 55150
City of Lakefield	Mathew Aden	Public Works	P.O. Box 900	Lakefield	MN 55150
City of Worthington	Steve Robinson	City Administrator	303 9th Street	Worthington	MN 56187
City of Worthington	Mindy Eggers	City Clerk	303 9th Street	Worthington	MN 56187
City of Worthington	Matt Selof	Director of Community Development/City Planner	303 9th Street	Worthington	MN 56187
City of Worthington	Scott Rosenberg	Park Supervisor	303 9th Street	Worthington	MN 56187
City of Worthington	Todd Wietzema	Public Works Director	303 9th Street	Worthington	MN 56187
<b>Townships</b>					
Ewington Township	Ronald L. Obermoller	Township Clerk	22594 Zeh Ave	Brewster	MN 56119
Round Lake Township	Charon Doyscher	Township Clerk	74564 350th Ave	Round Lake	MN 56167
Sioux Valley Township	John Ahrenstorff	Township Clerk	72894 400th Ave	Lakefield	MN 56150
Rost Township	Nichole Kruse	Township Clerk	41547 810th St	Lakefield	MN 56150
<b>State and Federal Legislators</b>					
State Representative	Marj Fogelman	House District 21B	323 State Office Building	St. Paul	MN 55155
State Senator	Bill Weber	Senate District 21	Minnesota Senate Bldg, Room 2211 95 University Avenue West	St. Paul	MN 55155
US House of Representatives	Brad Finstad	Representative - MN 1st District	110 N. Minnesota St., Suite 5	New Ulm	MN 56073
US Senate	Amy Klobuchar	US Senator	1130 1/2 7th Street NW, Room 212	Rochester	MN 55901
US Senate	Tina Smith	US Senator	1202-1/2 7th Street NW, Suite 218	Rochester	MN 55901

## **Appendix D**

### **Notice of Intent to File a Route Permit Application under the Alternative Route Permit Process**





ITC Midwest LLC 100 East Grand Avenue, Suite 360 • Des Moines, IA 50309

July 30, 2024

—Via Electronic Filing—

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

Re: Notice of Intent to File a Route Permit Application for the Forks 161 kV Switching Station and Forks – Rost 161 kV Transmission Line Project Under the Alternative Permitting Process  
Docket No. ET6675/TL-24-232

Dear Mr. Seuffert:

In accordance with Minn. R. 7850.2800, subp. 2, ITC Midwest LLC (Applicant) hereby notifies the Minnesota Public Utilities Commission (Commission) of their intent to submit an application for a Route Permit for the Forks 161 kV Switching Station and Forks – Rost 161 kilovolt (kV) Transmission Line Project (Project) following the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900. The Project involves construction of a new approximately 8.5 mile long 161 kV transmission line from the new Forks Switching Station to the new Rost Substation and construction of the new Forks Switching Station in Jackson County, Minnesota. The Project qualifies for review under the alternative permitting process authorized by Minn. Stat. § 216E.04, subd. 2(3) and Minn. R. 7850.2800, subp. 1(C) because the Project is a high voltage transmission line between 100 kV and 200 kV.

ITC Midwest LLC has electronically filed this document and served copies on all parties on the attached service list. Please contact me at (763) 257-6821 or [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com) if you have any questions regarding this filing.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest LLC  
Email: [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com)

cc: Service List

IN THE MATTER OF A ROUTE PERMIT APPLICATION  
FOR THE FORKS 161 kV SWITCHING STATION AND  
FORKS – ROST 161 kV TRANSMISSION LINE  
PROJECT UNDER THE ALTERNATIVE PERMITTING  
PROCESS

MPUC DOCKET No. ET6675/TL-24-232

**CERTIFICATE OF SERVICE**

Theresa Senart certifies that on the 30th day of July 2024, on behalf of ITC Midwest LLC, she filed a true and correct copy of its **Notice of Intent to File a Route Permit Application for the Forks – Rost 161 kV Transmission Line Project** by posting the same on [eDockets](#) in the above-referenced docket. Said Notice of Intent is also served by U.S. Mail or email as designated on the attached Service List on file with the Minnesota Public Utilities Commission.

*/s/ Theresa Senart* \_\_\_\_\_

Theresa Senart

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_24-232_TL-24-232
Bret	Eknes	bret.eknes@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	No	OFF_SL_24-232_TL-24-232
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_24-232_TL-24-232
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	85 7th Place E Ste 500  St. Paul, MN 55101	Electronic Service	No	OFF_SL_24-232_TL-24-232
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_24-232_TL-24-232
Mark	Rothfork	mrothfork@itctransco.com	ITC Midwest LLC	100 East Grand Ave, Suite 360  Des Moines, IA 50309	Electronic Service	No	OFF_SL_24-232_TL-24-232
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_24-232_TL-24-232

**Appendix E**  
**Wetland and Other Waters Delineation Report**

# Forks-Rost 161 kV Transmission Substation Jackson County, Minnesota



## Wetland Delineation Report

Prepared by:



May 2024

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## 1.0 INTRODUCTION

Merjent, Inc. (Merjent) performed a field survey to determine the presence and extent of wetlands and other surface water features for ITC Midwest, LLC's Forks-Rost 161 kV Transmission Substation project (Project) located in Jackson County, Minnesota (see Figure 1). Other surface water features can include, but are not limited to, streams, ponds, and lakes. This wetland delineation report will be used to support permitting associated with the Project.

This report outlines the field survey methodology and findings, as completed by Merjent. This report has been compiled by the following staff who are trained and experienced in wetland delineation methodologies and applicable regulations:

**Kallie Koon, MS (Field Lead)** is an Environmental Technician experienced in wetland delineations and vegetation monitoring. She received a BS in Biology from Arkansas Tech University, as well as a MS in Botany from Miami University. She has worked in multiple herbaria and has taught Field Botany at Miami University. She has performed wetland delineations and habitat evaluations throughout the Upper Midwest and has received a certificate in wetland delineation from the Wetland Training Institute.

**Brennan Hilzendeger, MS (Report Author)** is an Environmental Consultant with over seven years of technical experience in the environmental field working for public and private clientele throughout the Midwest and Great Plains. His expertise includes conducting and coordinating environmental field surveys, field and desktop reviews for wetland delineations, floristic quality assessments, stream assessments, air quality monitoring, and threatened and endangered species habitat assessments. Mr. Hilzendeger has worked across a variety of market industries including oil and gas, departments of transportation, and state and federal agencies.

**Jameson Loesch (GIS Analyst)** is Senior Analyst with over 10 years of experience conducting environmental review, permitting, compliance, and project management in the energy and utility industry throughout the Midwestern United States. His expertise focuses on utilizing GIS and other geospatial tools to make environmental review and decision making more efficient and effective during the planning, permitting, construction, and post-construction phases of his projects. Mr. Loesch has extensive experience through all phases of the environmental permitting process having worked as a field lead coordinating and conducting wetland delineations, botanical surveys, rare species surveys, and construction site compliance monitoring; as a GIS project manager developing site, access, and stormwater plans, while also conducting in depth desktop reviews and managing geospatial data in support of routing, planning, and permitting needs; and as a lead in the development of permit applications and enforcement at the local, state, and federal levels. Mr. Loesch is also experienced in conducting threatened/endangered species reviews, having completed a mix of desktop reviews, field surveys, agency consultations, and coordination with clients to ensure proper planning and compliance on over 1,000 projects to date.

## 2.0 METHODS

ITC Midwest, LLC (ITC) provided Merjent with a 11.85-acre survey area (Survey Area; see Figure 1) to complete the field surveys. At a minimum, the Survey Area represents the anticipated extent of Project disturbances and full site use. In many cases, the Survey Area extends even further to allow for minor adjustments to Project design, both for avoidance and minimization of impacts to resources and for constructability. Unless otherwise noted below (see Results section), the entire Survey Area is surveyed in-field by qualified biologists. The entire Survey Area may or may not be used for Project-related permitting and/or on-site construction activity.

Wetlands are defined by the presence of hydrophytic vegetation and wetland hydrology and soil indicators, as observed under normal circumstances and as described in the *United States Army Corps of Engineers (USACE) Wetland Delineation Manual* (Environmental Laboratory, 1987).

Streams are defined as any linear waterway otherwise referred to as, but not limited to, streams, creeks, rivers, or other local designations. Streams are characterized by a continuous bed and bank, bounded by observed and defined field indicators. For these features, the Ordinary High Water Mark (OHWM) width, substrate, and flow are recorded, along with the OHWM indicators and analysis found within the data sheets. The OHWM is not a direct in-field observation, but an assemblage of evidence used to determine the shape of the channel of a linear feature that reflects the magnitudes and variety of flows necessary to define it based on indirect observations and indicators. The OHWM width is the result of the weight of evidence observed in-field (David et. al., 2022).

Open waterbodies are defined as non-linear features that permanently hold water deeper than approximately 6 feet and for enough duration to preclude most aquatic vegetation or other wetland characteristics. These features include those commonly referred to as, but not limited to, ponds, lakes, or reservoirs. These features commonly have wetland fringe, which is assessed independently. A national field delineation manual for open waterbodies is not available at this time; however, some indicators used for linear streams can be used for open water features with caution.

Under non-normal circumstances, indicators for a feature may be obscured, fully or in-part. In those cases, additional data and context may be needed in using professional judgement to define the most appropriate extents and attributes for these features.

### 2.1 DESKTOP REVIEW METHODS

The following processes and procedures were followed to determine the potential presence of wetlands or other surface water features within the Survey Area prior to the site visit.

#### 2.1.1 Previous Site Review

Previous site review can give biologists direct insight for current site conditions, providing them with an expectation of what features may be present and what site factors may influence how the site is assessed. In cases where previous field survey data are available, Merjent investigates and independently documents each previously identified feature. Where boundary data originating from a previous field survey do not match or corroborate Merjent's findings, the biologists collect additional data and photos, and they provide sufficient notes and detail to explain discrepancies.



## **2.1.2 Background Data Review**

Prior to the survey, biologists reviewed all available desktop resources to identify suspected surface water features, and an in-office desktop review of available information was performed using these data, which advised the development and execution of the field investigation.

### **2.1.2.1 Topography**

Merjent reviewed Minnesota Department of Natural Resources (MNDNR) two-foot contours based on Light Detection and Ranging (LiDAR) (Minnesota Geospatial Information Office, 2023). The review of topographical data aids in determining general locations of large surface water features and surface water flow across a landscape within and surrounding the Survey Area.

### **2.1.2.2 Soil Survey**

The Natural Resources Conservation Service (NRCS) - U.S. Department of Agriculture (USDA) Soil Survey Geographic Database (SSURGO; Soil Survey Staff, NRCS, USDA, 2019) soils inventory describes the soils series for the Survey Area and surrounding landscape. Attributes within each soil series can provide evidence of potential for wetlands, most commonly the Hydric Soils classification attribute. While historical land use and common drainage practices have led to many of these areas no longer supporting any remaining indication of wetland conditions, hydric soils series are still useful in determining areas with which to focus survey effort.

### **2.1.2.3 Mapped Surface Water Features**

A desktop review was completed using the following water resources datasets ahead of field survey.

The MNDNR update (MNDNR, 2015) to the National Wetlands Inventory (NWI) is a Minnesota-specific update to the nation-wide NWI data set (USFWS, 2021) that was developed to remotely identify potential wetland areas.

The MNDNR Public Waters Inventory (PWI) data set (MNDNR, 2011) is a database maintained by the State of Minnesota. It identifies and provides additional regulatory protection for features meeting selected criteria as described in Minnesota Statute Section 103G.005, subd. 15, identified on the maps authorized by Section 103G.201.

The MNDNR Hydrography Dataset (MNDNR, 2012), which is the authoritative version of statewide hydrography. The MNDNR Hydrography Dataset is a collection of the "best available" MNDNR spatial features representing Minnesota surficial hydrology. These features originate from multiple sources representing a range of scales and accuracies. All feature classes are topologically related and will function as an integrated set of statewide features.

The USGS National Hydrography Dataset (NHD; USGS, 2004) is the most up-to-date and comprehensive nationwide dataset for rivers, streams, canals, lakes, ponds, coastline, dams, and stream gages. While originally developed by the U.S. Environmental Protection Agency (USEPA) and USGS, it is now maintained and updated by multiple regulatory bodies.

### 2.1.3 Off-site Aerial Review

An Off-site Aerial Review (OAR) of historic aerial imagery was conducted to determine the presence or absence of farmed wetlands within the agricultural fields of the Survey Areas in accordance with USACE and Minnesota Board of Water and Soil Resources (BWSR) Guidance for Off Site Hydrology/Wetland Determinations (USACE & BWSR, 2016). The method provides an objective, step-by-step evaluation of aerial imagery, which is cross-referenced with the above-referenced background data. Associated data entry forms are populated, which calculate the probability of wetland presence for each feature reviewed.

The dates of the aerial imagery are used to determine if the images exhibit normal precipitation climate conditions. A wet year aerial image is used to mark potential features, and a minimum of five normal-precipitation aerial images are reviewed for making determinations. Suspected wetland areas are analyzed for common wetland hydrology signatures including crop stress, areas that were not cropped or planted but drowned out, areas of avoidance in agricultural areas, and signatures of soil wetness (darker tones of soil often surrounding standing water or prominent wetland features). Wetland signatures can also be determined by observing standing water or by distinct differences in vegetative cover. For example, common wetland species such as cattails (*Typha* spp.) and reed canary grass (*Phalaris arundinacea*) can be readily identifiable on high-resolution aerial imagery (BWSR, 2010). Observations are recorded in a decision matrix to determine if a field investigation is required, and a wetland determination is made for each area (USACE & BWSR, 2016).

### 2.1.4 Current, Historic, and High-Resolution Aerial Imagery

Aerial imagery provides site-wide observations within the context of the surrounding landscape. It is useful in estimating locations and extents of surface water features, especially in non-forested areas. Historic and recent imagery can be used to observe a site during different conditions, such as spring, summer, and fall, or wet, normal, and dry circumstances. A comparison of imagery is also useful in determining impacts or disturbances to a site over time that may affect the current locations and extents of surface water features. Merjent uses aerial imagery available on a variety of sources including Esri (2019), Google Earth™ (2023), and the National Agriculture Imagery Program (NAIP; USDA, 2022).

### 2.1.5 Recent Climatic Conditions and Precipitation Data

The Antecedent Precipitation Tool (APT) is a desktop tool developed by the USACE. The APT is commonly used by the USACE and USEPA to support decisions as to whether field data collection and other site-specific observations occurred under normal climatic conditions. This tool was originally developed by the USACE to streamline the review of climate data, which supports decision-making related to wetland delineations. The APT facilitates the comparison of antecedent, or recent, rainfall conditions for a given location to the range of normal rainfall conditions that occurred during the preceding 30 years. In addition to providing a standardized methodology to evaluate normal precipitation conditions, the APT can also be used to assess the presence of drought conditions, as well as the approximate dates of the wet and dry seasons for a given location (USEPA, 2021).

## 2.2 FIELD SURVEY METHODS

Merjent delineated wetlands based on the methods described in the USACE Wetland Delineation Manual (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of*

*Engineers Wetland Delineation Manual: Midwest Region* (USACE, 2010). Merjent delineated streams in accordance with the *USACE National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (David et. al., 2022). Biologists completed data forms at data points during the field survey within or near the wetland and stream areas to document indicators, or lack thereof, for each suspected feature. Biologists identified vegetative wetland communities according to the *Eggers & Reed Classification System* (Eggers & Reed, 2015).

Field documentation is recorded during survey for desktop-mapped resources that are determined to be absent. In areas of upland associated with hydric soils or linear stream features, representative photos are taken of upland conditions. In areas of upland conditions within NWI-mapped features, a data point, Wetland Determination Data Form, and photos are taken to document upland conditions, unless the area is significantly sloped or otherwise obviously upland; in those circumstances, representative photos may be deemed sufficient.

### 2.2.1 Feature Naming

Features identified in associated figures and appendices are named in the following manner:

- Wetlands (w01, w02, etc.)
- Streams (s01, s02, etc.)
- Open waters (o01, o02, etc.)
- Wetland determination data points (dp01, dp02, etc.)
- Stream data points (sp01, sp02, etc.)
- Photo points (pp01, pp02, etc.)
- Wet signatures (ws01, ws02, etc.)

Features are named consecutively, as encountered in the field, and may not follow a geographical spatial order.

### 2.2.2 Site Photographs

Photographs provided in Appendix A give a visual representation of wetlands and other surface water features, as well as general site conditions, at the time of inspection. Photos are geospatially referenced by their associated photo point location and presented with direction taken (e.g., “pp01 view West,” “pp02 view Northeast”). Photo point locations are depicted on the wetland delineation figure (see Figure 5).

Representative photos are collected for each wetland community and open waterbody identified. Photos are taken up, down, and across each linear stream feature. Site photos are collected throughout the Survey Area to demonstrate upland and transitional conditions. Additional photos, not provided in Appendix A, may be available upon request.

### 2.2.3 Wetland Determination Data Forms

Wetland Determination Data Forms are the written documentation of how representative data point locations meet or do not meet each of the wetland criteria (see Appendix B). Plant species nomenclature follows the *Regional Wetland Plant List* (USACE, 2022). Hydric soils were identified using the methods outlined in *Field Indicators of Hydric Soils in the United States, Version 8.2* (USDA-NRCS, 2018).

#### **2.2.4 Rapid Ordinary High Water Mark Field Identification Data Sheets**

The Rapid OHWM Field Identification Data Sheets (David et. al., 2022) are the written documentation of what indicators of the potential OHWM were observed, and how they are applied in determining the OHWM.

This data sheet was developed for the sole purpose of identifying the OHWM of linear features, and it does not apply to open waterbodies such as lakes or ponds.

#### **2.2.5 Other Surface Water Connections**

While often not considered as regulated features, surface water connections such as culverts, upland swales or drainages, and upland road ditches may at times connect to, drain, or drain into regulated features within the Survey Area, particularly during extreme flow events. To the extent practicable and relevant, Merjent maps these surface water connections to aid in explaining surface water connectivity across the Survey Area.

#### **2.2.6 Limitations of Survey Data**

Merjent surveys all data point locations and boundaries of wetlands, streams, and open waterbodies using Global Positioning System (GPS) technology capable of sub-meter accuracy. While these surveys provide reasonably accurate and industry-standard spatial data, they do not provide the same level of accuracy as a professional land survey.

For linear features narrower than twice the accuracy of GPS (i.e., 2 meters), the centerline is mapped, and the feature is widened using GIS. A center line may be taken for forested features where GPS accuracy can be reduced. Lateral extents for anomalies such as impoundments or culvert washes are collected in-field to accurately map the variability along entire feature.

Feature boundaries were not flagged during the field survey.

## 3.0 RESULTS

### 3.1 DESKTOP REVIEW RESULTS

#### 3.1.1 Previous Site Review

Merjent is unaware of previous wetland delineation mapping at this site or associated regulatory review; as such, previous site review was not completed.

#### 3.1.2 Background Data Review

##### 3.1.2.1 Topography

LiDAR was acquired from MNDNR for review of the Survey Area (see Figure 2; Minnesota Geospatial Information Office, 2023). The topographic map for this Project shows a relatively flat landscape with gentle sloping from the west to the east.

##### 3.1.2.2 Soil Survey

The SSURGO soil map (see Figure 3) identifies three soil types within the Survey Area, one of which is classified as hydric (see Table 3.1.2-1 below; Soil Survey Staff; NRCS, USDA, 2019). The hydric soil is located in the central portion of the Survey Area.

Symbol	Description	Hydric Soil Unit?	Acres
229	Waldorf silty clay loam, 0 to 2 percent slopes	Yes	6.31
102B	Clarion loam, 2 to 6 percent slopes	No	1.98
96	Collinwood silty clay loam, 1 to 3 percent slopes	No	3.56
<b>TOTAL</b>			<b>11.85</b>

Note: Source: Soil Survey Staff, NRCS, USDA, 2019

##### 3.1.2.3 Mapped Surface Water Features

The hydrology map (see Figure 4) shows no NWI-, NHD-, or PWI-mapped surface water features within the Survey Area (USFWS, 2021; USGS, 2004; MNDNR, 2011).

#### 3.1.3 Off-site Aerial Review

An OAR was conducted for the Survey Area. Two wet signatures (ws01 and ws02) were identified within the Survey Area. Wet signatures ws01 and ws02 are located in the northwestern and southeastern portions of the Survey Area, respectively. Both wet signatures are located in a low points within the agricultural field.

The full OAR of historical aerial imagery, APT analysis, and the decision matrices are located in Appendix C.

### 3.1.4 Recent Climatic Conditions and Precipitation Data

Merjent compared recent precipitation data with historic precipitation data from a 30-year dataset using the Antecedent Precipitation Tool (APT) to determine if normal hydrologic and climatic conditions were present on-site during field surveys. When compared, the observed precipitation data from three months prior to the field delineation indicated normal conditions at the time of the field survey (see Appendix D; USEPA, 2021).

## 3.2 FIELD SURVEY RESULTS

On April 24, 2024, Merjent wetland ecologist Kallie Koon conducted a general reconnaissance of the entire Survey Area to evaluate site conditions and determine boundaries of wetlands and other surface water features.

Dominant land use within the Survey Area includes harvested agricultural fields, and field edges. Field edges are located on the southern and western edges of the Survey Area.

Weather conditions at the time of survey were favorable and did not impair observations. All portions of the Survey Area were accessible during the field survey.

### 3.2.1 Uplands

Harvested agricultural fields make up the majority of the Survey Area. The harvested fields were planted with corn (*Zea mays*) during the 2023 growing season. The remaining upland area consists of field edges.

The field edges are dominated by smooth brome (*Bromus inermis*), common dandelion (*Taraxacum officinale*) and Canada thistle (*Cirsium arvense*)

#### 3.2.1.1 Upland Verification of Wet Signature Features

Data points were collected in the two wet signatures (ws01 and ws02) identified in Section 3.1.3.

Data point dp01 was recorded to verify upland conditions within ws01. The tree and sapling/shrub stratum are bare. The herb stratum is sparse and consists of Canada thistle. The soil profile does not meet any hydric soil indicator criteria. It is important to note that the soil profile does not meet the Thick Dark Surface (A12) indicator due to lack of geomorphic position because of functional drain tile present within the agricultural field. The only wetland hydrology indicator identified is Saturation Visible on Aerial Imagery (C9). Data point dp01 was determined to be upland.

Data point dp02 was recorded to verify upland conditions within ws02. The tree, sapling/shrub, and herb stratum are bare. The soil profile does not meet any hydric soil indicator criteria. It is important to note that the soil profile does not meet the Thick Dark Surface (A12) indicator due to lack of geomorphic position because of functional drain tile present within the agricultural field. The only wetland hydrology indicator identified is Saturation Visible on Aerial Imagery (C9). Data point dp02 was also determined to be upland.

### 3.2.2 Wetlands

No wetlands were identified within the Survey Area.

**3.2.3 Streams**

No streams were identified within the Survey Area.

**3.2.4 Open Waterbodies**

No open waterbodies were identified within the Survey Area.

**3.2.5 Other Surface Water Resources Identified**

No other surface water resources were identified within the Survey Area.

#### **4.0 SUMMARY AND CONCLUSION**

Merjent performed a delineation of wetlands and other surface water features for the Forks-Rost 161 kV Transmission Substation Project in Jackson County, Minnesota.

Based on the field survey and review of desktop resources, it is our professional opinion that no wetlands, streams, open waterbodies, or other surface water resources exist within the 11.85-acre Survey Area. This report represents our best professional judgment based on our local knowledge and experience.



## 5.0 DISCLAIMER

The wetlands, streams, and other natural resources identified in this report may be subject to regulation by federal, state, and/or local jurisdiction. These authorities may require a professional land survey of the delineated boundaries to verify impacts for regulatory purposes.

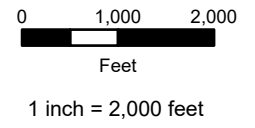
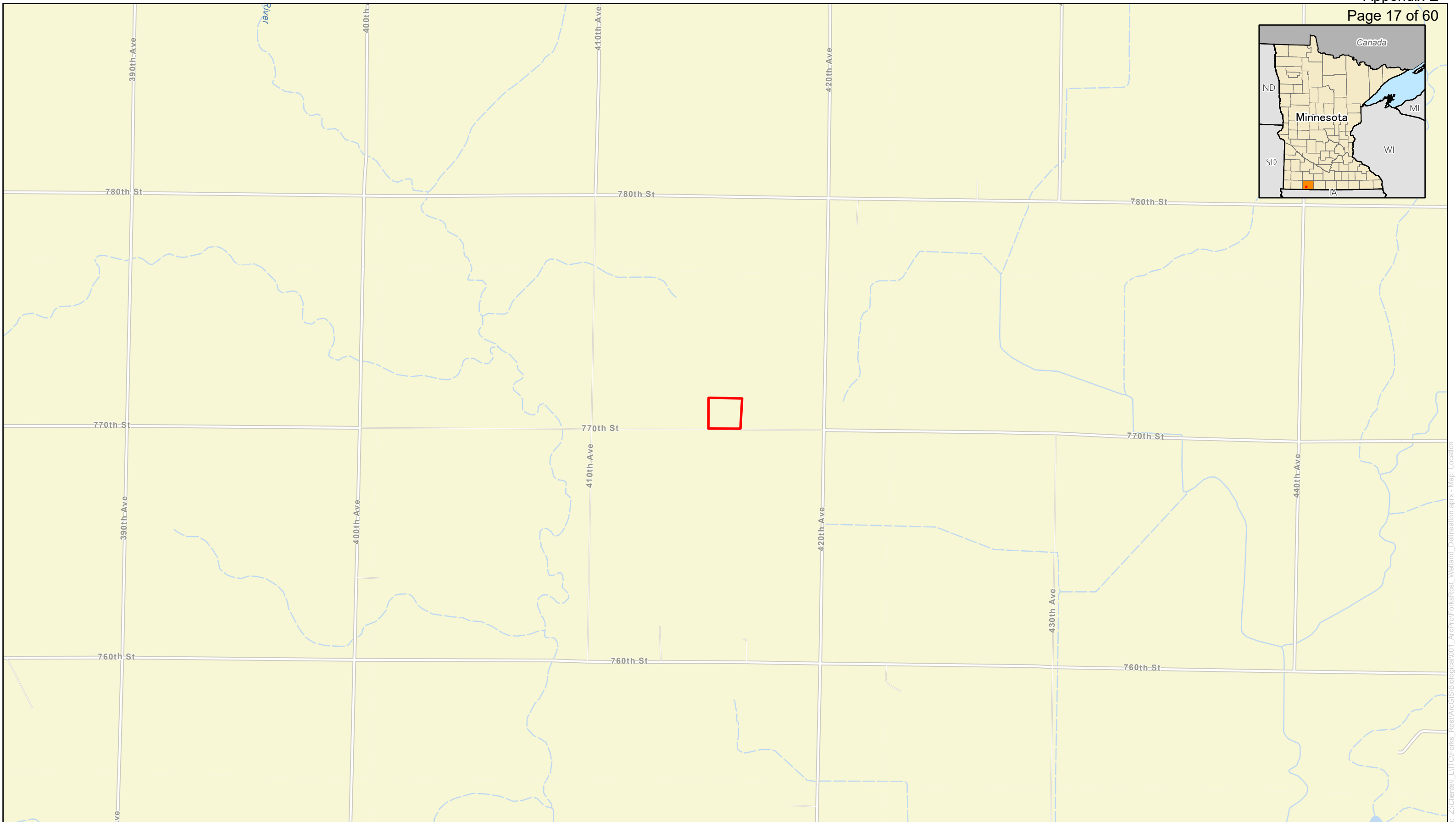
The field survey results presented herein apply to the existing site conditions at the time of the survey. They do not apply to site changes of which Merjent is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to the natural processes or human impacts at the Project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of Merjent.

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**Figure 1**  
**Project Location**



For Environmental Review Purposes Only

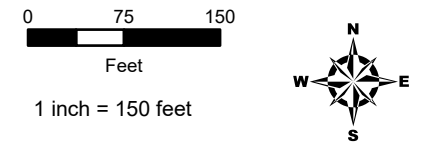
**Figure 1 - Project Location**  
**Forks – Rost 161 kV Transmission Substation**  
 ITC Midwest LLC  
 Jackson County, Minnesota

 Survey Area





Source: Z:\Clients\1\11\1\1\Forks\_Rost\161kV\Biological\001\_ArcPro\ForksRost\_Welland\_Delimitation.aprx - Map Location Date: (5/21/2024)

**Figure 2**  
**Topography**



For Environmental Review Purposes Only  
 USGS 1:24,000 scale topographic maps (7.5- by 7.5-minute quadrangles): Lakefield SW (1972)

**Figure 2 - Topography**  
 Forks – Rost 161 kV Transmission Substation  
 ITC Midwest LLC  
 Jackson County, Minnesota

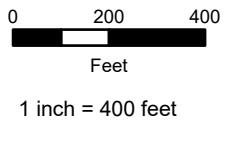
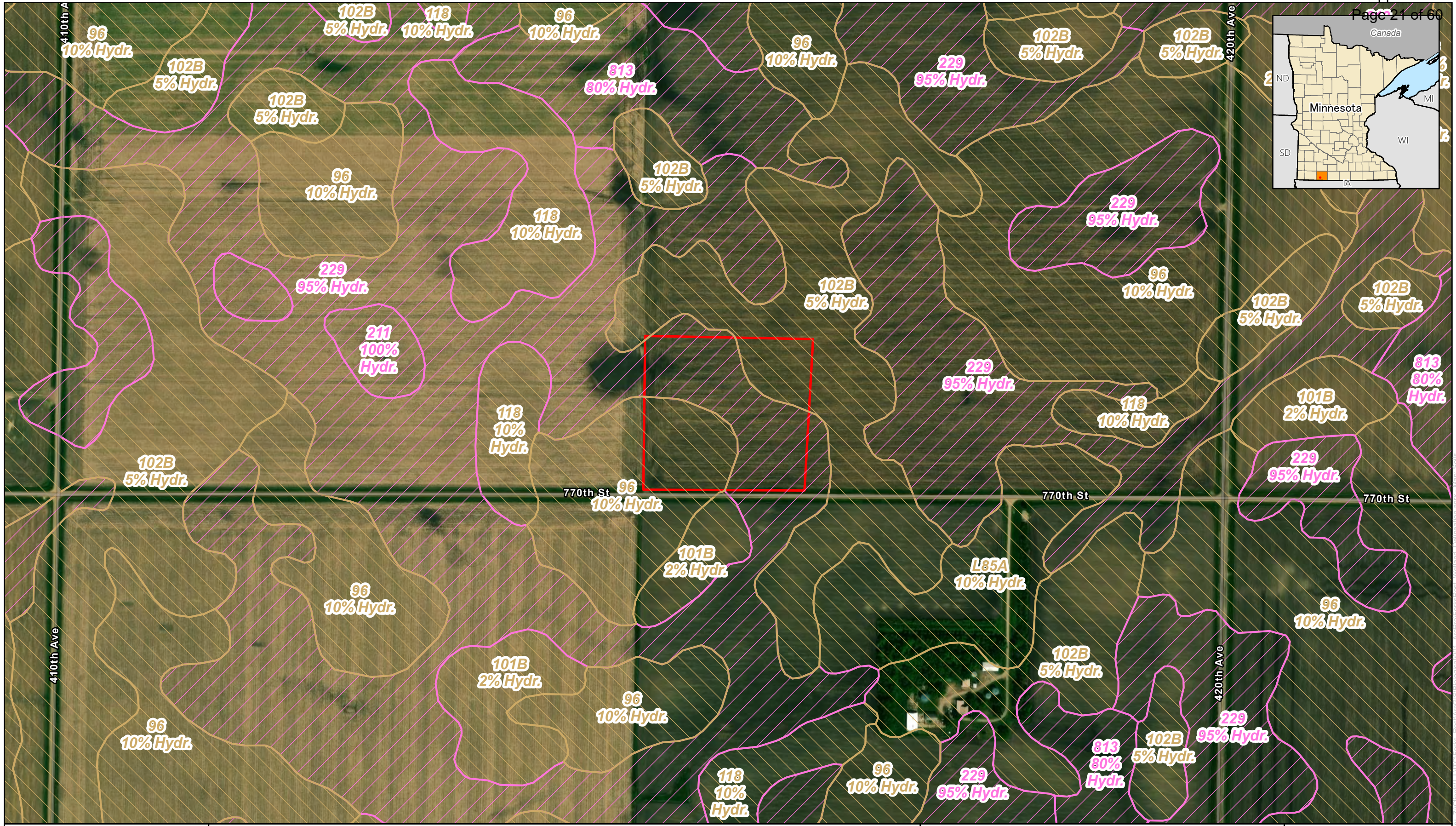
-  Survey Area
-  2-foot Contour



Source: Z:\Clients\11111\Forks\_Rost\ArcGIS\biological\001\_ArcPro\Forks\Welland\_Delimiton.aprx - Map - 10p Date: (5/2/2024)

**Figure 3**  
**SSURGO Soil Type**



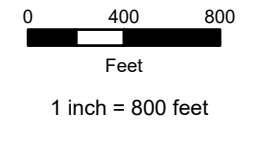
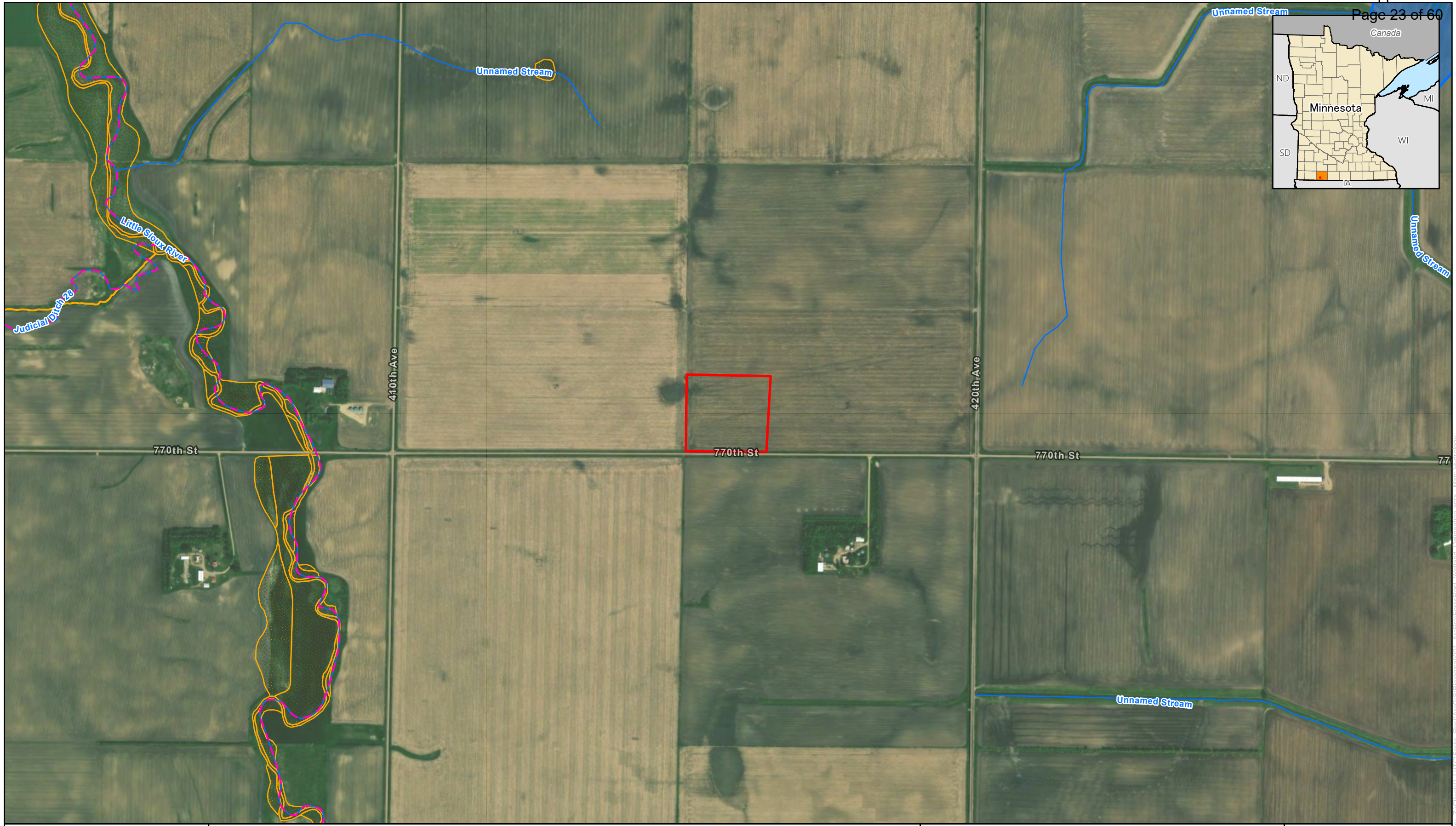


**Figure 3 – SSURGO Soil Type**  
**Forks – Rost 161 kV Transmission Substation**  
**ITC Midwest LLC**  
**Jackson County, Minnesota**

- Survey Area
- Hydric Soil
- Non-Hydric Soil



**Figure 4**  
**Hydrology**



For Environmental Review Purposes Only

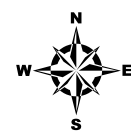
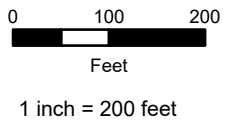
**Figure 4 - Hydrology**  
**Forks – Rost 161 kV Transmission Substation**  
**ITC Midwest LLC**  
**Jackson County, Minnesota**

- Survey Area
- MDNR Public Waters Watercourse
- Mapped Waterway (MDNR)
- Mapped Waterbody (MDNR)
- Mapped Wetland (NWI)



Source: Z:\Clients\11111\Forks\_Rost\ArcGIS\Biological\001\_ArcPro\ForksRost\_Wetland\_Delimitation.aprx - Map: Hydrology  
 Date: (5/21/2024)

**Figure 5**  
**Wetland Delineation**



For Environmental Review Purposes Only

**Figure 5 – Wetland Delineation**  
**Forks – Rost 161 kV Transmission Substation**  
**ITC Midwest LLC**  
**Jackson County, Minnesota**

- Survey Area
- + Photo Point
- Wetland Data Point



Source: Z:\Clients\1111\Forks\_Rost\ArcGIS\Biological\001\_ArcPro\ForksRost\_Wetland\_Delineation.aprx - Map - Delineation  
 Date: (5/21/2024)

**Appendix A**  
**Survey Photographs**



Photograph pp01 view East



Photograph pp01 view North



Photograph pp01 view South



Photograph pp01 view West





Photograph pp02 view East



Photograph pp02 view North



Photograph pp02 view South



Photograph pp02 view West



Photograph pp03 view East



Photograph pp03 view North



Photograph pp03 view South



Photograph pp03 view West



Photograph pp04 view East



Photograph pp04 view North



Photograph pp04 view South



Photograph pp04 view West



Photograph pp05 view East



Photograph pp05 view North



Photograph pp05 view South



Photograph pp05 view West





Photograph pp06 view East



Photograph pp06 view North



Photograph pp06 view South



Photograph pp06 view West



Photograph pp07 view East



Photograph pp07 view North



Photograph pp07 view South



Photograph pp07 view West



Photograph pp08 view East



Photograph pp08 view North



Photograph pp08 view South



Photograph pp08 view West



Photograph pp09 view East



Photograph pp09 view South



Photograph pp09 view West



**Appendix B**  
**Wetland Determination Data Forms –**  
**Midwest Region**

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site: Forks-Rost 161 kV Transmission City/County: Jackson County Sampling Date: 2024-04-24  
 Applicant/Owner: ITC Holdings State: MN Sampling Point: dp01  
 Investigator(s): Kallie Koon Section, Township, Range: S26 T102N S037W  
 Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave  
 Slope(%): 0-2 Lat: 43.60252 Long: -95.24266 Datum: WGS 84  
 Soil Map Unit Name: 229: Waldorf silty clay loam, 0 to 2 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  Significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		No <input checked="" type="checkbox"/>
Remarks: (Explain alternative procedures here or in a separate report.) Analysis of antecedent precipitation conditions indicates normal precipitation conditions on site at the time of survey. Data point dp01 was recorded in a harvested soybean field 25 ft north of a drainage tile inlet.				

**VEGETATION - Use scientific names of plants.**

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ 1 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0% (A/B)	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
0% = Total Cover					
<b>Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)</b>					
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
2. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
3. _____	_____	_____	_____	OBL species _____ 0 x1 = _____ 0	
4. _____	_____	_____	_____	FACW species _____ 0 x1 = _____ 0	
5. _____	_____	_____	_____	FAC species _____ 0 x1 = _____ 0	
0% = Total Cover				FACU species _____ 5 x1 = _____ 20	
<b>Herb Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m<sup>2</sup>) quadrat)</b>					
1. <u>Cirsium arvense, Canadian Thistle</u>	5%	yes	FACU	UPL species _____ 0 x1 = _____ 0	
2. _____	_____	_____	_____	Column Totals: _____ 5 x1 = _____ 20 (B)	
3. _____	_____	_____	_____	Prevalence Index = B/A = _____ 4.000	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
5% = Total Cover					
<b>Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)</b>					
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
2. _____	_____	_____	_____	____ 1 - Rapid Test for Hydrophytic Vegetation	
0% = Total Cover				____ 2 - Dominance Test is > 50%	
				____ 3 - Prevalence Index is <= 3.0 <sup>1</sup>	
				____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
				____ PROBLEMATIC Hydrophytic Vegetation <sup>1</sup> (Explain)	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: (Include photo numbers here or on a separate sheet.)  
 Data point dp01 was recorded in a harvested soybean field.



**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site: Forks-Rost 161 kV Transmission City/County: Jackson County Sampling Date: 2024-04-24  
 Applicant/Owner: ITC Holdings State: MN Sampling Point: dp02  
 Investigator(s): Kallie Koon Section, Township, Range: S26 T102N S037W  
 Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave  
 Slope(%): 0-2 Lat: 43.60404 Long: -95.24498 Datum: WGS 84  
 Soil Map Unit Name: 229: Waldorf silty clay loam, 0 to 2 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  Significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>		
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: (Explain alternative procedures here or in a separate report.) Analysis of antecedent precipitation conditions indicates normal precipitation conditions on site at the time of survey. Data point dp02 was recorded in a harvested corn field 25 feet southeast of a functioning drain tile inlet.					

**VEGETATION - Use scientific names of plants.**

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A)  Total Number of Dominant Species Across All Strata: _____ 0 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0% (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0% = Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____ 0</td> <td>x1 = _____ 0</td> </tr> <tr> <td>FACW species _____ 0</td> <td>x1 = _____ 0</td> </tr> <tr> <td>FAC species _____ 0</td> <td>x1 = _____ 0</td> </tr> <tr> <td>FACU species _____ 0</td> <td>x1 = _____ 0</td> </tr> <tr> <td>UPL species _____ 0</td> <td>x1 = _____ 0</td> </tr> <tr> <td>Column Totals: _____ 0</td> <td>x1 = _____ 0 (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____ NaN</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____ 0	x1 = _____ 0	FACW species _____ 0	x1 = _____ 0	FAC species _____ 0	x1 = _____ 0	FACU species _____ 0	x1 = _____ 0	UPL species _____ 0	x1 = _____ 0	Column Totals: _____ 0	x1 = _____ 0 (B)	Prevalence Index = B/A = _____ NaN	
Total % Cover of:	Multiply by:																			
OBL species _____ 0	x1 = _____ 0																			
FACW species _____ 0	x1 = _____ 0																			
FAC species _____ 0	x1 = _____ 0																			
FACU species _____ 0	x1 = _____ 0																			
UPL species _____ 0	x1 = _____ 0																			
Column Totals: _____ 0	x1 = _____ 0 (B)																			
Prevalence Index = B/A = _____ NaN																				
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0% = Total Cover																				
Herb Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m <sup>2</sup> ) quadrat)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
0% = Total Cover																				
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
0% = Total Cover																				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Index is <= 3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ PROBLEMATIC Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				

Remarks: (Include photo numbers here or on a separate sheet.)  
 Data point dp02 was recorded in a harvested soybean field.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-24	10YR - 2/1	100	----- /- - -	---	---	---	CL	---
24-40	10YR - 2/1	95	7.5YR-4/6	5	C	M	SiCL	---
40-45	10YR - 2/1	35	10YR-4/1	60	D	M	SiCL	---
	----- /- - -	---	7.5YR-5/6	5	C	M	---	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (or Histel) (A1) <b>undefined</b> <input type="checkbox"/> Histic Epipedon (A2) <b>undefined</b> <input type="checkbox"/> Black Histi (A3) <b>undefined</b> <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
--	--	--

<b>Restrictive Layer (if observed):</b> Type: --- Depth (inches): ---	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:  
The soil profile meets the hydric soil criterion for Thick Dark Surface (A12).

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one required; check all that apply)</u> <input type="checkbox"/> Surface water (A1) <input type="checkbox"/> High water table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment deposits (B2) <input type="checkbox"/> Drift deposits (B3) <input type="checkbox"/> Algal mat or crust (B4) <input type="checkbox"/> Iron deposits (B5) <input type="checkbox"/> Inundation visible on aerial imagery (B7) <input type="checkbox"/> Sparsely vegetated concave surface (B8)	<input type="checkbox"/> Water-stained leaves (B9) <input type="checkbox"/> Aquatic fauna (B13) <input type="checkbox"/> True aquatic plants (B14) <input type="checkbox"/> Hydrogen sulfide odor (C1) <input type="checkbox"/> Oxidized rhizospheres along living roots (C3) <input type="checkbox"/> Presence of reduced iron (C4) <input type="checkbox"/> Recent iron reduction in tilled soils (C6) <input type="checkbox"/> Thin muck surface (C7) <input type="checkbox"/> Gauge or well data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface soil cracks (B6) <input type="checkbox"/> Drainage patterns (B10) <input type="checkbox"/> Dry-season water table (C2) <input type="checkbox"/> Crayfish burrows (C8) <input checked="" type="checkbox"/> Saturation visible on aerial imagery (C9) <input type="checkbox"/> Stunted or stressed plants (D1) <input type="checkbox"/> Geomorphic position (D2) <input type="checkbox"/> FAC-neutral test (D5)
---	--	--

<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): --- Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): --- Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): ---	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Saturation is visible on some years of aerial imagery, but no other wetland hydrology indicators were observed.

**Appendix C**  
**Off-site Aerial Review**

**Exhibit 1** Field data sheet reference (if applicable):

**Wetland Hydrology from Aerial Imagery – Recording Form**

Project Name: ITC Forks to Rost 161kV Project

Date: 5/21/2024 County: Jackson County, MN

Investigator: Jameson Loesch Legal Description (T, R, S): T102N, R37W, Sec. 26

**Summary Table**

Date Image Taken (M-D-Y)	Image Source	Climate Condition (wet, dry, normal) <sup>i</sup>	Image Interpretation(s)	
			ws01	ws02
8-5-2021	NAIP	Dry	NV	NV
8-23-2019	NAIP	Normal	SS	SS
8-3-2015	NAIP	Normal	NV	NV
7-10-2013	NAIP	Wet	SS	SS
6-24-2010	NAIP	Normal	NV	NV
8-21-2005	NAIP	Normal	NV	NV
<b>Normal Climate Condition</b>				
<b>Number</b>			4	4
<b>Number with wet signatures</b>			1	0
<b>Percent with wet signatures</b>			25	0

<b>KEY</b>		
WS - wetland signature	SS - soil wetness signature	CS - crop stress
NC - not cropped	AP - altered pattern	NV - normal vegetative cover
DO - drowned out	SW - standing water	NSS - no soil wetness signature
Other labels or comments:	TC - Thriving crop during dry conditions	

- Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associated with the use of these labels. If alternate labels are used, indicate in box above.
- If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

**Exhibit 2** Field data sheet reference (if applicable):

**Wetland Determination from Aerial Imagery – Recording Form**

Project Name: ITC Forks to Rost 161kV Project

Date: 5/21/2024 County: Jackson County, MN

Investigator: Jameson Loesch Legal Description (T, R, S): T102N, R37W, Sec. 26

Use the Decision Matrix below to complete Table 1.

Hydric Soils present <sup>1</sup>	Identified on NWI or other wetland map <sup>2</sup>	Percent with wet signatures from Exhibit 1	Field verification required <sup>3</sup>	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

<sup>1</sup> The presence of hydric soils can be determined from the “Hydric Rating by Map Unit Feature” under “Land Classifications” from the Web Soil Survey. “Not Hydric” is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

<sup>2</sup> At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

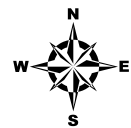
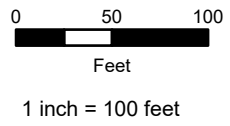
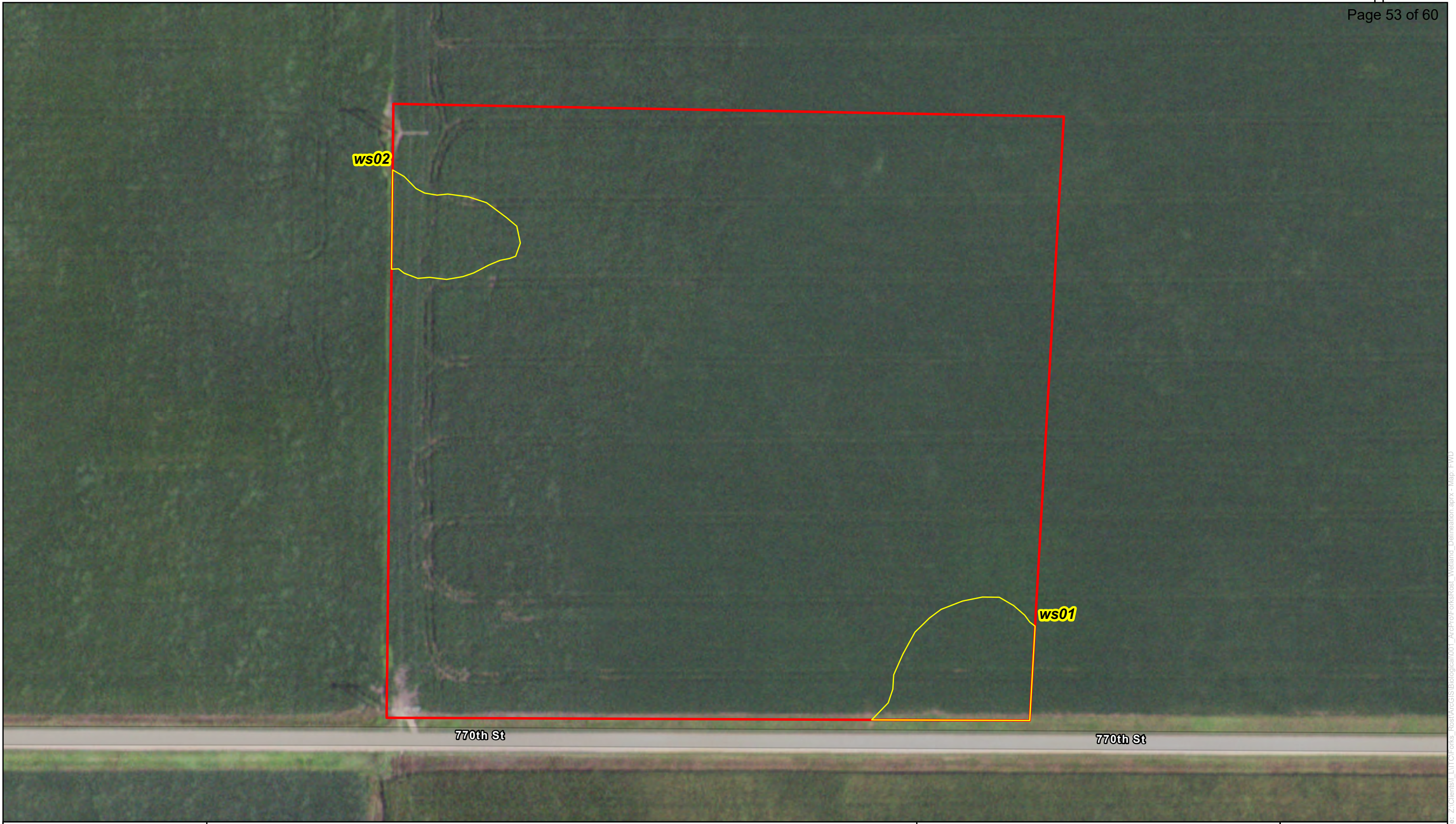
<sup>3</sup> Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

**Table 1.**

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present <sup>1</sup>	Wetland
ws01	Yes	No	25%	No	No
ws02	Yes	No	0%	No	No

<sup>1</sup> Answer “N/A” if field verification is not required and was not conducted.





For Environmental Review Purposes Only

**Farmed Wetland Determination  
2021 NAIP Imagery - Dry  
ITC Forks to Rost 161kV Project  
ITC Midwest LLC  
Jackson County, Minnesota**



Survey Area



Farmed Wetland Determination Signature



Source: Z:\Clients\1111\ITC Forks to Rost\161kV\BIO\Biological\001\_ArcPro\ForkToRost\_Kos\Wetland\_Delimitation.aprx - Map: FWD

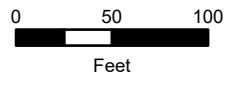


ws02

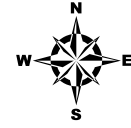
ws01

770th St

770th St



1 inch = 100 feet



For Environmental Review Purposes Only

Farmed Wetland Determination  
2019 NAIP Imagery - Normal  
ITC Forks to Rost 161kV Project  
ITC Midwest LLC  
Jackson County, Minnesota



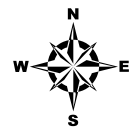
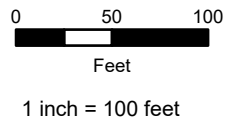
Survey Area



Farmed Wetland Determination Signature





Date: (6/27/2024) Source: Z:\Clients\I\1111\Forks\_Rost\ArcGIS\Biology\001\_ArcPro\ForksRost\_Wetland\_Delineation.aprx - Map: FWD



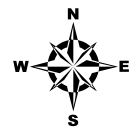
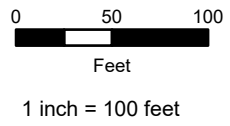
For Environmental Review Purposes Only

**Farmed Wetland Determination  
2015 NAIP Imagery - Normal  
ITC Forks to Rost 161kV Project  
ITC Midwest LLC  
Jackson County, Minnesota**

-  Survey Area
-  Farmed Wetland Determination Signature





Source: Z:\Clients\1111\ITC Forks\_Rost\ArccGIS\Biological\001\_ArccPro\ForkRost\_Kos\Wetland\_Delimitation.aprx - Map: FWD  
Date: 6/27/2024



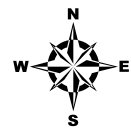
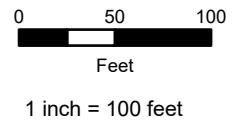
For Environmental Review Purposes Only

**Farmed Wetland Determination  
2013 NAIP Imagery - Wet  
ITC Forks to Rost 161kV Project  
ITC Midwest LLC  
Jackson County, Minnesota**



-  Survey Area
-  Farmed Wetland Determination Signature



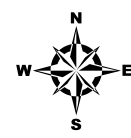
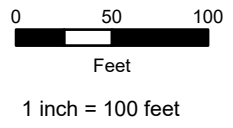
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Date: 6/27/2024





Farmed Wetland Determination  
2010 NAIP Imagery - Normal  
ITC Forks to Rost 161kV Project  
ITC Midwest LLC  
Jackson County, Minnesota

-  Survey Area
-  Farmed Wetland Determination Signature



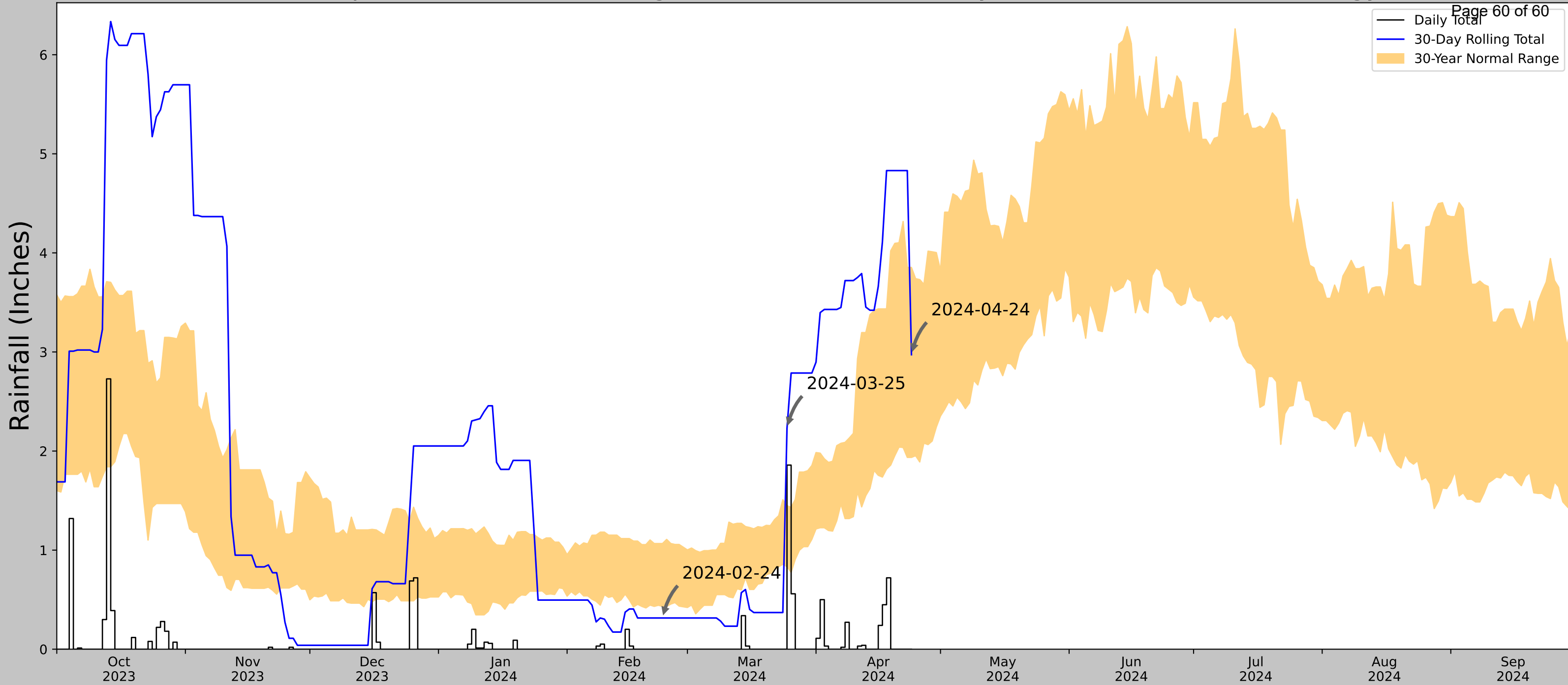


**Farmed Wetland Determination**  
**2005 NAIP Imagery - Normal**  
**ITC Forks to Rost 161kV Project**  
**ITC Midwest LLC**  
**Jackson County, Minnesota**

-  Survey Area
-  Farmed Wetland Determination Signature



**Appendix D**  
**APT Analysis**



Coordinates	43.602523, -95.242643
Observation Date	2024-04-24
Elevation (ft)	1438.625
Drought Index (PDSI)	Incipient wetness (2024-03)
WebWIMP H <sub>2</sub> O Balance	Wet Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-24	1.935827	3.85315	2.972441	Normal	2	3	6
2024-03-25	0.833071	1.448819	2.228347	Wet	3	2	6
2024-02-24	0.432283	1.066535	0.314961	Dry	1	1	1
Result							Normal Conditions - 13



Figure and tables made by the  
**Antecedent Precipitation Tool**  
Version 1.0

Written by Jason Deters  
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
LAKE PARK	43.4483, -95.3247	1464.895	11.421	26.27	5.44	11295	81
LAKE PARK 0.2 N	43.4516, -95.3251	1466.864	0.229	1.969	0.104	23	9
LAKE PARK 3.2 SSE	43.403, -95.3079	1439.961	3.241	24.934	1.539	10	0
HARRIS 0.1 NNE	43.4473, -95.4328	1558.071	5.423	93.176	2.946	9	0
MILFORD 4 NW	43.3828, -95.1842	1401.903	8.379	62.992	4.298	14	0
SPIRIT LAKE	43.4231, -95.1394	1419.948	9.458	44.947	4.681	1	0



**Appendix F**  
**Agency and Tribal Outreach**



August 8, 2023

**VIA U.S. Mail**

Stephan Roos, Planner  
Minnesota Department of Agriculture  
625 Robert Street North  
St. Paul, MN 55155-2538

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Stephan Roos:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

The Project will require a Route Permit from the Minnesota Public Utilities Commission (Commission). Commission approval must be obtained before the Project can be built. ITC plans to submit a Route Permit Application to the Commission in approximately June 2024. As part of this process, ITC has started gathering agency and public input regarding the proposed Project. We would appreciate any input you may have as we prepare the Route Permit Application and work through the Commission's approval process. ITC plans to begin Project construction in the second quarter of 2026.

Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbroghammer@itctransco.com](mailto:lbroghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map





August 8, 2023

**VIA U.S. Mail**

Troy Daniell, Minnesota State Conservationist  
USDA NRCS  
MN State Office  
375 Jackson St  
St. Paul, MN 55101-1854

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Troy Daniell:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist

ITC Midwest

Enclosure: Project Overview Map





August 8, 2023

**VIA U.S. Mail**

Kelly Gragg-Johnson, Environmental Review Program Specialist  
Minnesota SHPO  
50 Sherburne Avenue, Suite 203  
St. Paul, MN 55155

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Kelly Gragg-Johnson:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

The Project will require a Route Permit from the Minnesota Public Utilities Commission (Commission). Commission approval must be obtained before the Project can be built. ITC plans to submit a Route Permit Application to the Commission in approximately June 2024. As part of this process, ITC has started gathering agency and public input regarding the proposed Project. We would appreciate any input you may have as we prepare the Route Permit Application and work through the Commission's approval process. ITC plans to begin Project construction in the second quarter of 2026.

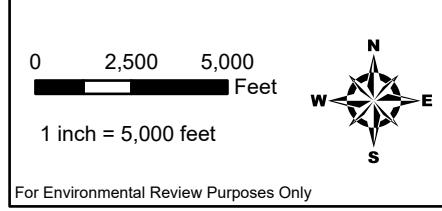
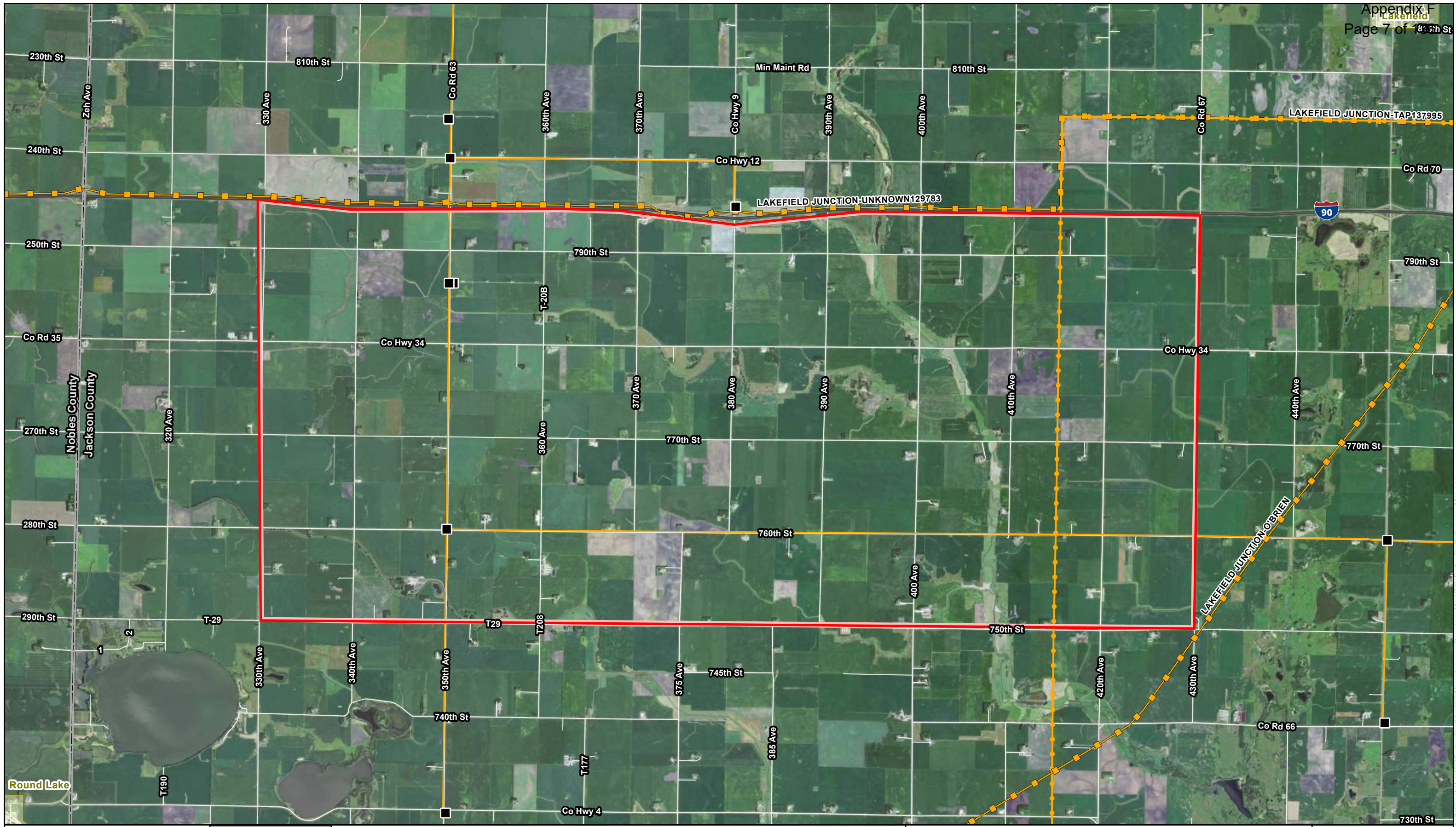
Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbroghammer@itctransco.com](mailto:lbroghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



### Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project ITC

Project Location  
Jackson County, Minnesota

Project Study Area	Existing Substation
County Boundary	Existing Transmission Line
Municipal Boundary	345 kV
	100-161 kV
	Less than 100 kV



Source: Z:\Clients\T1\T1\Corporis\_Rost\ArCAD\GIS\Miscellaneous\Overview\_Map\T1\_C\_Forks\_Rost\_OverviewMap.aprx Date: 7/26/2023





August 8, 2023

**VIA U.S. Mail**

Amanda Gronhovd, MN State Archaeologist  
MN State Archaeologist  
328 W. Kellogg Blvd  
St. Paul, MN 55102

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Amanda Gronhovd:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

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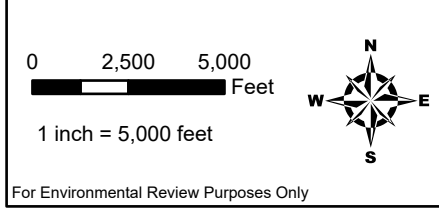
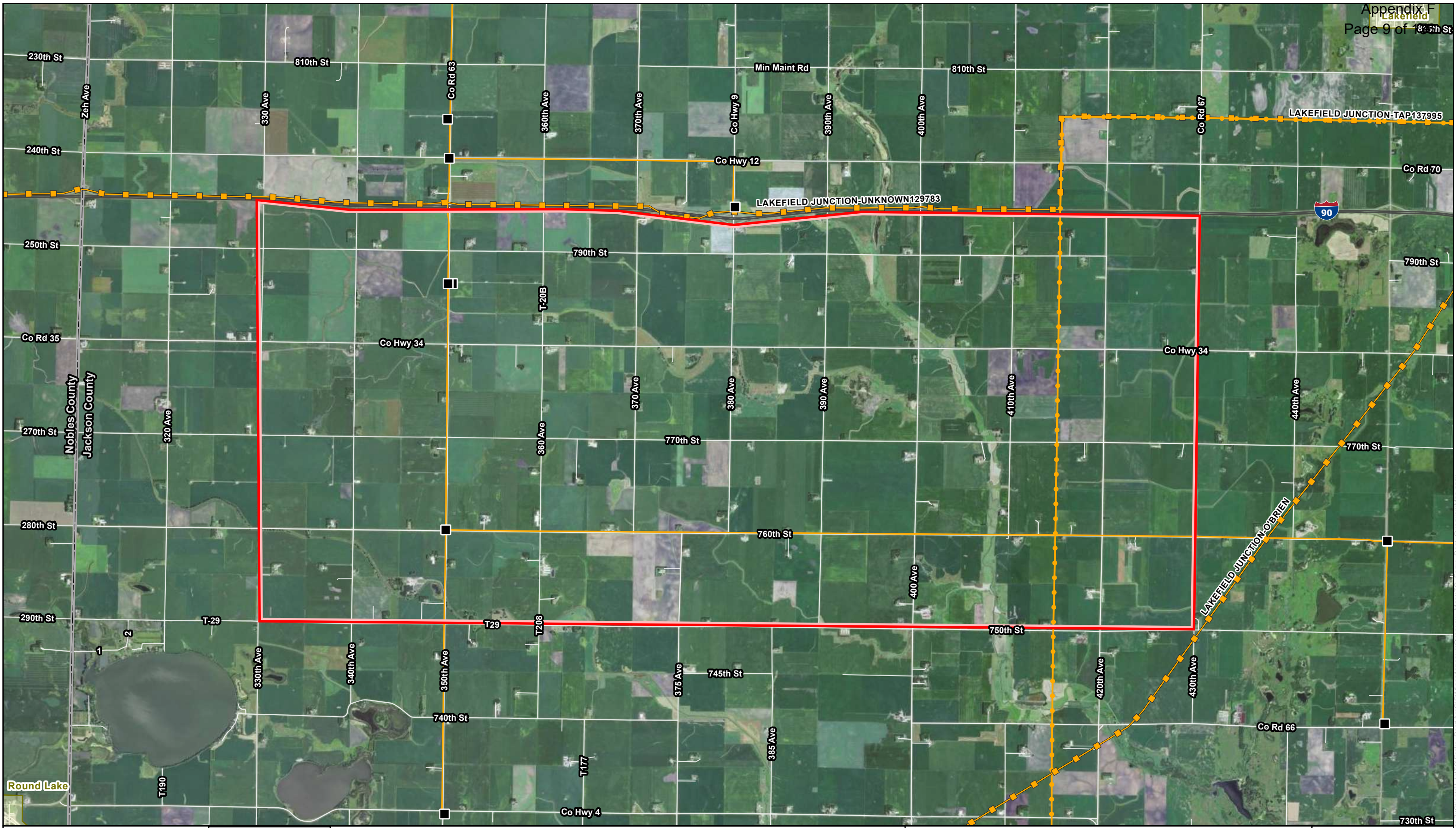
Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbroghammer@itctransco.com](mailto:lbroghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



### Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project ITC

Project Location  
Jackson County, Minnesota

- Project Study Area
- County Boundary
- Municipal Boundary

- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV





August 8, 2023

**VIA U.S. Mail**

Larry Hansen, Board Chairman  
Jackson County Soil & Water Conservation District  
603 South Hwy. 86  
Lakefield, MN 56150

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Larry Hansen:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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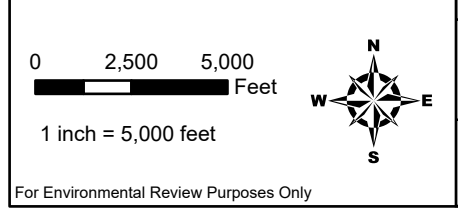
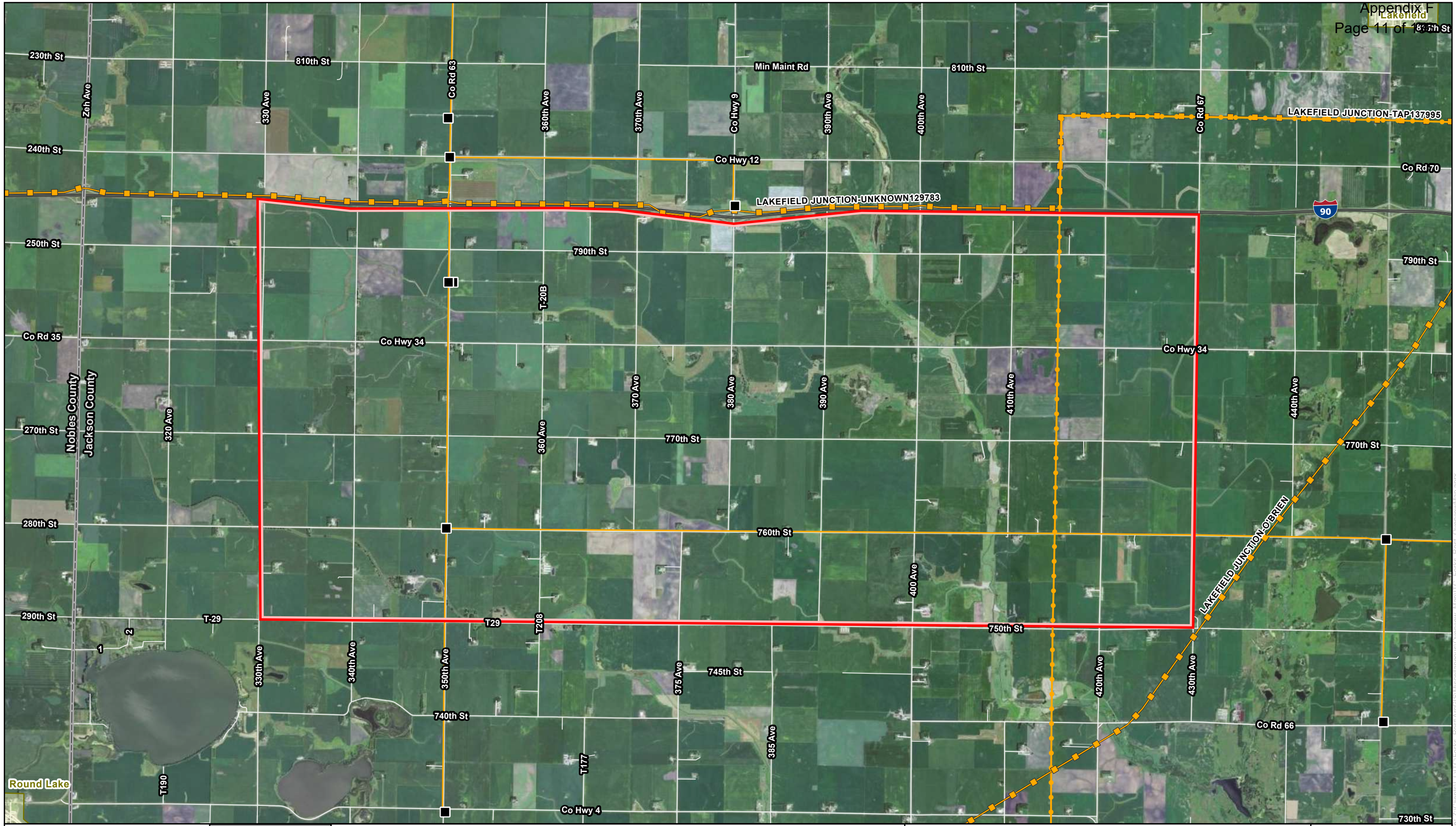
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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



**Forks 161 kV Switching Station and  
 Forks-Rost 161 kV Transmission Line Project**  
 ITC  
 Project Location  
 Jackson County, Minnesota

- Project Study Area
- County Boundary
- Municipal Boundary

- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV





August 8, 2023

**VIA U.S. Mail**

Dan Bartosh, Land Management Director  
Jackson County Land Management Department  
603 South Hwy. 86  
Lakefield, MN 56150

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Dan Bartosh:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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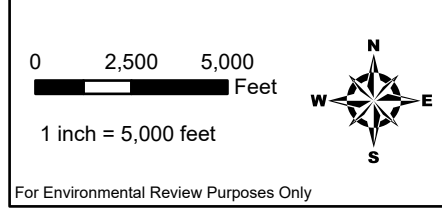
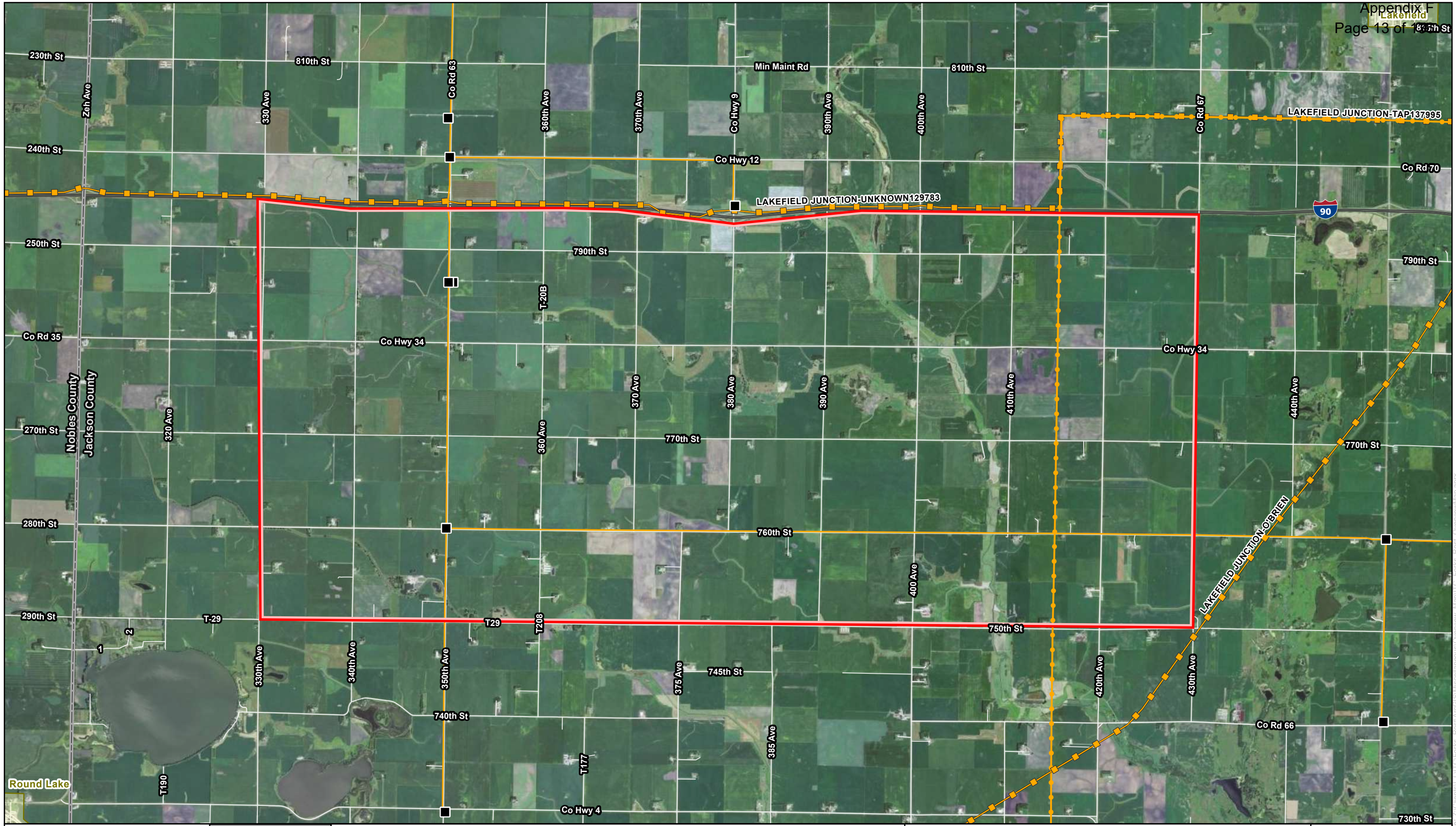
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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



**Forks 161 kV Switching Station and  
Forks-Rost 161 kV Transmission Line Project**  
**ITC**  
**Project Location**  
**Jackson County, Minnesota**

- Project Study Area
- County Boundary
- Municipal Boundary

- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV





August 8, 2023

**VIA U.S. Mail**

Greg Ous, District Engineer  
Minnesota DOT District 7  
180 South County Road 26  
Windom, MN 56101

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Greg Ous:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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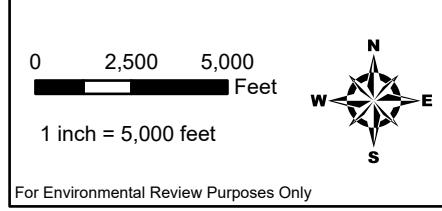
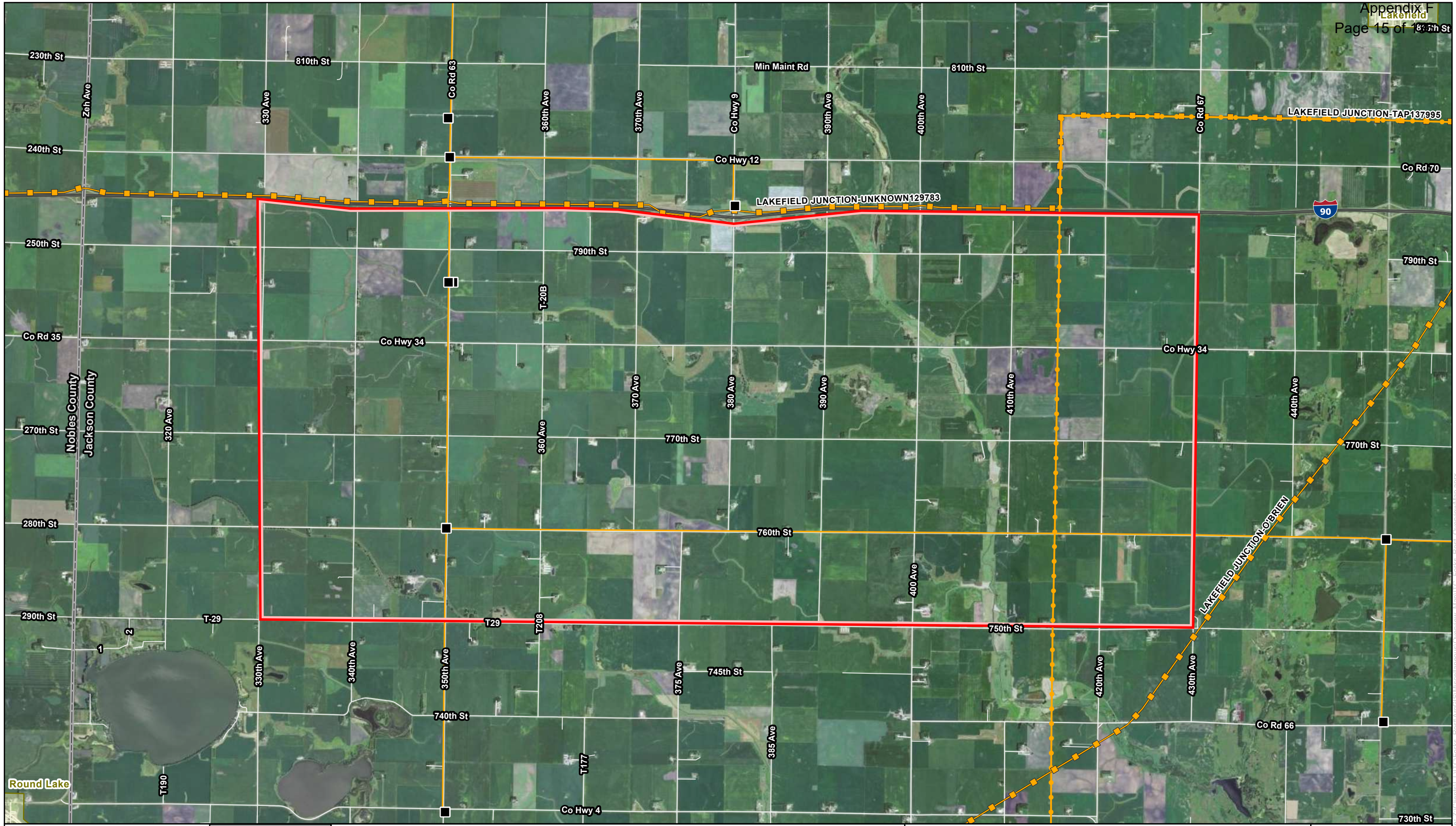
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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



### Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project ITC

Project Location  
Jackson County, Minnesota

Project Study Area	Existing Substation
County Boundary	Existing Transmission Line
Municipal Boundary	345 kV
	100-161 kV
	Less than 100 kV







August 8, 2023

**VIA U.S. Mail**

Tim Stahl, County Engineer  
Jackson County Engineering and Road Maintenance  
53053 780th Street  
Jackson, MN 56143

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Tim Stahl:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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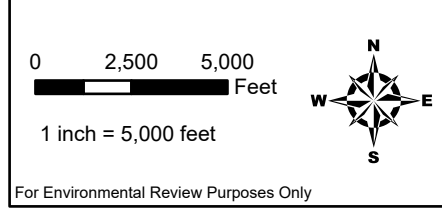
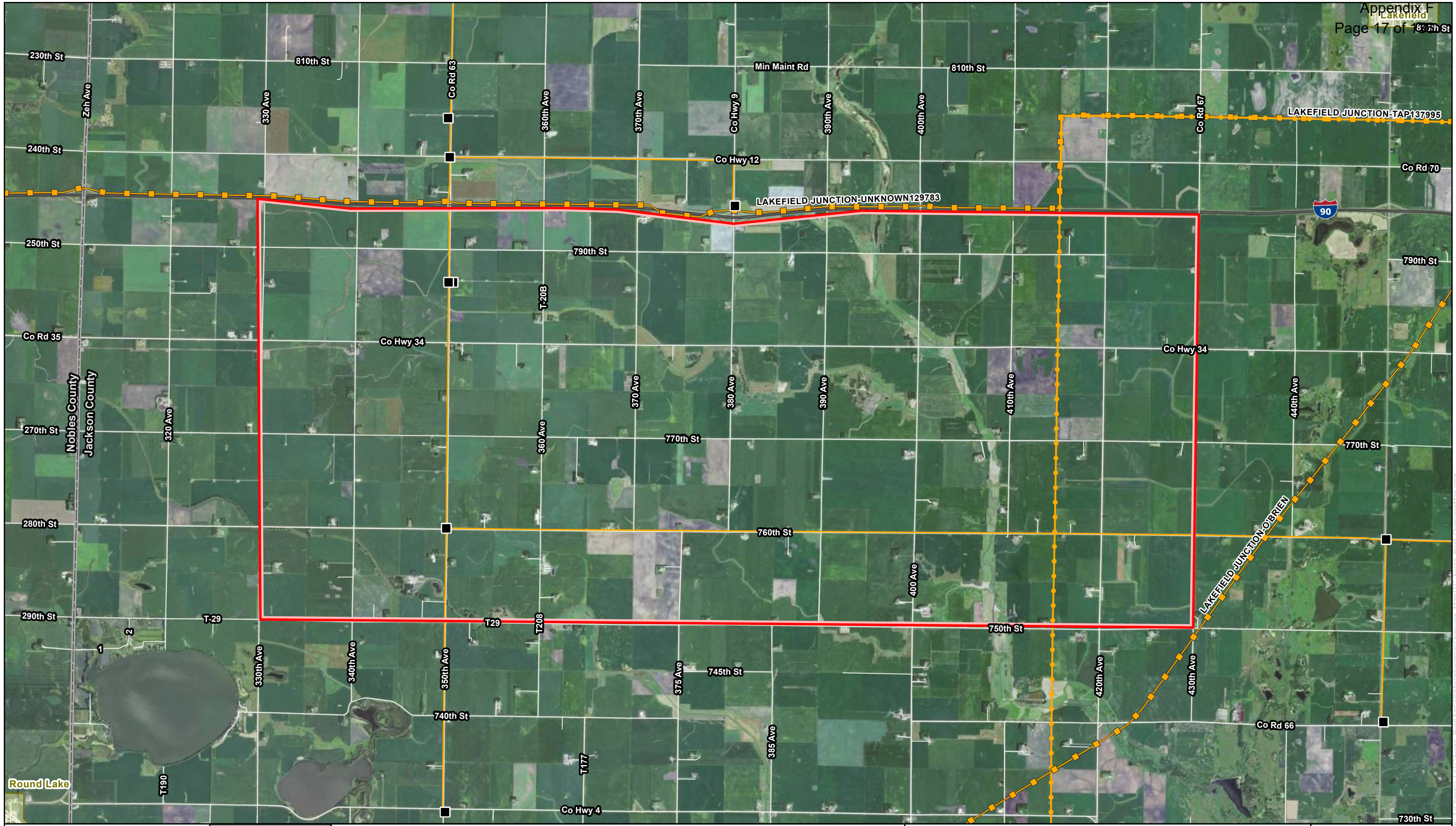
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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



**Forks 161 kV Switching Station and  
Forks-Rost 161 kV Transmission Line Project**  
ITC  
Project Location  
Jackson County, Minnesota

- Project Study Area
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- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV





August 8, 2023

**VIA U.S. Mail**

Steve Robinson, City Administrator  
City of Worthington  
303 9th Street  
Worthington, MN 56187

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Steve Robinson:

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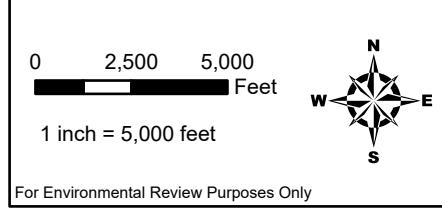
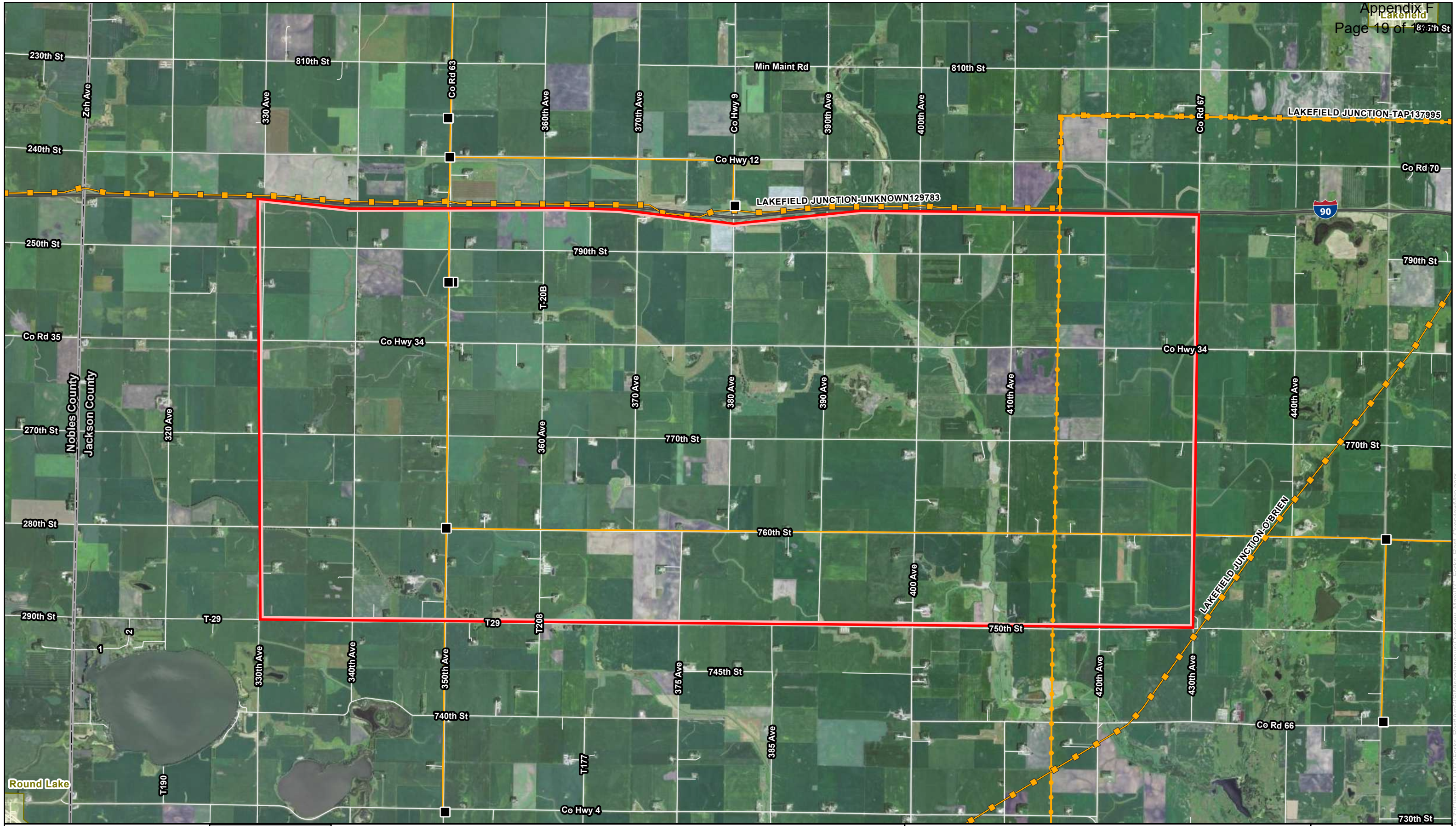
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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



**Forks 161 kV Switching Station and  
Forks-Rost 161 kV Transmission Line Project**  
ITC  
Project Location  
Jackson County, Minnesota

- Project Study Area
- County Boundary
- Municipal Boundary

- Existing Substation
- Existing Transmission Line
  - 345 kV
  - 100-161 kV
  - Less than 100 kV





August 8, 2023

**VIA U.S. Mail**

Stacy Anderson, City Clerk  
City of Lakefield  
P.O. Box 900  
Lakefield, MN 56150

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Stacy Anderson:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map





August 8, 2023

**VIA U.S. Mail**

Lori Broghammer,  
ITC Midwest  
1201 South Shore Drive  
Clear Lake, IA 50428

**ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Lori Broghammer:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map







August 8, 2023

**VIA U.S. Mail**

Shauna Marquardt  
US Fish and Wildlife Service  
Field Supervisor – Ecological Services  
4101 American Boulevard East  
Bloomington, MN 55425

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Ms. Marquardt,

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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ITC reviewed the Project using the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) tool. The tricolored bat (proposed endangered), monarch butterfly (candidate), prairie bush clover (threatened), and the western prairie fringed orchid (threatened) have been previously documented within the

Project area. A desktop habitat assessment will be completed to determine if suitable habitat for these species is present and a follow-up field-based habitat assessment will be completed if the habitat cannot be avoided.

Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map  
Official Species List





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:  
Project Code: 2023-0109355  
Project Name: Forks-Rost

July 26, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

### Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS IPaC system by completing the same process used to receive the enclosed list.

### Consultation Technical Assistance

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of "no effect" or "may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species' biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a "Not Likely to Adversely Affect" (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a "May Affect" determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for "May Affect" determinations unless otherwise indicated in your output letter.

**Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review.** If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
  2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
-

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### **Northern Long-Eared Bats**

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

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**Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

*Please note:* On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's [northern long-eared bat website](#).

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

##### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

##### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

#### Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-



## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East  
Bloomington, MN 55425-1659  
(952) 858-0793

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## PROJECT SUMMARY

Project Code: 2023-0109355  
Project Name: Forks-Rost  
Project Type: Transmission Line - New Constr - Above Ground  
Project Description: Electric Transmission  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.6045035,-95.3153757,14z>



Counties: Jackson County, Minnesota

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## FLOWERING PLANTS

NAME	STATUS
Prairie Bush-clover <i>Lespedeza leptostachya</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4458">https://ecos.fws.gov/ecp/species/4458</a>	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1669">https://ecos.fws.gov/ecp/species/1669</a>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
JACKSON COUNTY WATERFOWL PRODUCTION AREA OF MN <a href="https://www.fws.gov/refuges/profiles/index.cfm?id=32587">https://www.fws.gov/refuges/profiles/index.cfm?id=32587</a>	80.493

## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31

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NAME	BREEDING SEASON
<b>Black Tern <i>Chlidonias niger</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20
<b>Bobolink <i>Dolichonyx oryzivorus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Franklin's Gull <i>Leucophaeus pipixcan</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
<b>Hudsonian Godwit <i>Limosa haemastica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Marbled Godwit <i>Limosa fedoa</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds May 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Ruddy Turnstone <i>Arenaria interpres morinella</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Short-billed Dowitcher <i>Limnodromus griseus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Willet <i>Tringa semipalmata</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

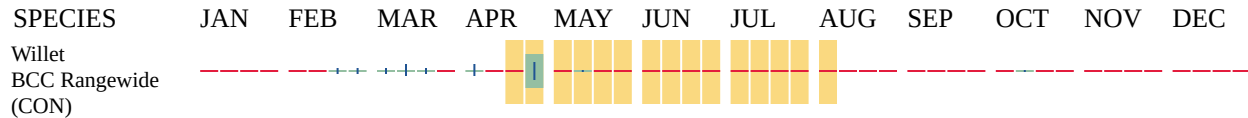
### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe







Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1Ax](#)
- [PFO1/EM1Ax](#)
- [PSS1Cx](#)
- [PFO1/EM1A](#)
- [PSS1Ax](#)
- [PFO1C](#)
- [PFO1A](#)
- [PSS1C](#)
- [PFO1Cx](#)

### FRESHWATER EMERGENT WETLAND

- [PEM1Ad](#)
- [PEM1B](#)
- [PEM1C](#)
- [PEM1Cx](#)
- [PEM1Af](#)
- [PEM1A](#)
- [PEM1Ax](#)

### FRESHWATER POND

- [PUBKx](#)
  - [PUBF](#)
  - [PABFx](#)
  - [PABF](#)
  - [PUBHx](#)
  - [PUBFx](#)
  - [PUBH](#)
-

RIVERINE

- [R5UBFx](#)
  - [R2UBG](#)
  - [R2UBHx](#)
  - [R4SBC](#)
  - [R4SBCx](#)
  - [R5UBH](#)
  - [R2UBGx](#)
  - [R2UBH](#)
-

## **IPAC USER CONTACT INFORMATION**

Agency: Merjent Inc.  
Name: Mandy Bohnenblust  
Address: 1 Main St SE, Suite 300  
City: Minneapolis  
State: MN  
Zip: 55414  
Email: mandy.bohnenblust@merjent.com  
Phone: 6127463677

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August 8, 2023

VIA U.S. Mail

Haley Byron  
Minnesota Department of Natural Resources  
Regional Environmental Assessment Ecologist  
117 Rogers Street  
Mankato, MN 56001

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

Dear Ms. Byron:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

The Project will require a Route Permit from the Minnesota Public Utilities Commission (Commission). Commission approval must be obtained before the Project can be built. ITC plans to submit a Route Permit Application to the Commission in approximately June 2024. As part of this process, ITC has started gathering agency and public input regarding the proposed Project. We would appreciate any input you may have as we prepare the Route Permit Application and work through the Commission's approval process. ITC plans to begin Project construction in the second quarter of 2026.

On behalf of ITC, Merjent, Inc. (Merjent) submitted a formal Natural Heritage Review Request (2023-00566) on July 27, 2023 (enclosed) through the Minnesota Department of Natural Resources' (MnDNR) Minnesota Conservation Explorer. An automatic response



was received on July 27, 2023 and no ecologically significant areas, state-listed threatened or endangered species, or state-listed species of special concern have been documented within the vicinity of the project.

Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map  
MCE Letter





## Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

**Project Name:** ITC Forks-Rost

**Project Proposer:** ITC Midwest

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project Type Activities:** ;

**TRS:** T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5, T101 R37 S6, T101 R38 S1, T101 R38 S2, T101 R38 S3, T101 R38 S4, T101 R38 S5, T101 R38 S9 +

**County(s):** Jackson

**DNR Admin Region(s):** South

**Reason Requested:** PUC Site or Route Application

**Project Description:** The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long ...

**Existing Land Uses:** Agricultural

**Landcover / Habitat Impacted:** Agricultural

**Waterbodies Affected:** TBD

**Groundwater Resources Affected:** TBD

**Previous Natural Heritage Review:** No

**Previous Habitat Assessments / Surveys:** No

### SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
<b>Project Details</b>	No Comments	No Further Review Required
<b>Ecologically Significant Area</b>	Comments	Local Conservation Value - Comment Protected Wetlands: Calcareous Fens
<b>State-Listed Endangered or Threatened Species</b>	No Comments	No Further Review Required
<b>State-Listed Species of Special Concern</b>	No Comments	No Further Review Required
<b>Federally Listed Species</b>	No Records	Visit IPaC For Federal Review



Minnesota Department of Natural Resources  
Division of Ecological & Water Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155-4025

July 27, 2023

Project ID: MCE #2023-00566

Mandy Bohnenblust  
Merjent, Inc.  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414

RE: Automated Natural Heritage Review of the proposed ITC Forks-Rost  
See Cover Page for location and project details.

Dear Mandy Bohnenblust,

As requested, the above project has been reviewed for potential effects to rare features. Based on this review, the following rare features may be adversely affected by the proposed project:

*Ecologically Significant Area*

- The Minnesota Biological Survey (MBS) has identified one or more Sites of Biodiversity Significance within or adjacent to the project boundary. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Factors taken into account during the ranking process include the number of rare species documented within the site, the quality of the native plant communities in the site, the size of the site, and the context of the site within the landscape.

Areas with Potential Local Conservation Value - The proposed project may impact one or more areas that have local conservation value. These areas are ranked as Below in the MBS Sites of Biodiversity Significance layer, and are retained in the layer as negative data. These areas do not meet the minimum biodiversity threshold for statewide significance but may have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat.

- One or more calcareous fens have been documented in the vicinity of the proposed project. A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. Calcareous fens are fragile and may be impacted by stormwater runoff, any activity within the fen, or any activity that affects groundwater hydrology including groundwater pumping, contamination, or discharge). For more information regarding calcareous fens, please see the [Calcareous Fen Fact Sheet](#). To

minimize stormwater impacts, please refer to the Minnesota Pollution Control Agency's [General Principles for Erosion Prevention and Sediment Control](#) in the Minnesota Stormwater Manual. Please note that calcareous fens are "Special Waters" and a [buffer zone](#) may be required.

Depending on the distance to the calcareous fen(s), additional guidance may be provided below if you indicated that potential project activities include wetland impacts or groundwater impacts. If you did not correctly identify wetland or groundwater impacts as part of your project, this impact analysis may be incorrect.

#### *State-Listed Endangered or Threatened Species*

No state-listed endangered or threatened species have been documented in the vicinity of the project.

#### *State-Listed Species of Special Concern*

No state-listed species of special concern have been documented in the vicinity of the project.

#### *Federally Listed Species*

The Natural Heritage Information System does not contain any records for federally listed species within one mile of the proposed project. Please note, however, that not all federally listed species are tracked within the NHIS. To ensure compliance with federal law, please conduct a federal regulatory review using the U.S. Fish and Wildlife Service's online [Information for Planning and Consultation \(IPaC\) tool](#).

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and the project description provided on the cover page. If project details change or construction has not occurred within one year, please resubmit the project for review.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. For information on the environmental review process or other natural resource concerns, you may contact your [DNR Regional Environmental Assessment Ecologist](#).

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

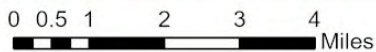
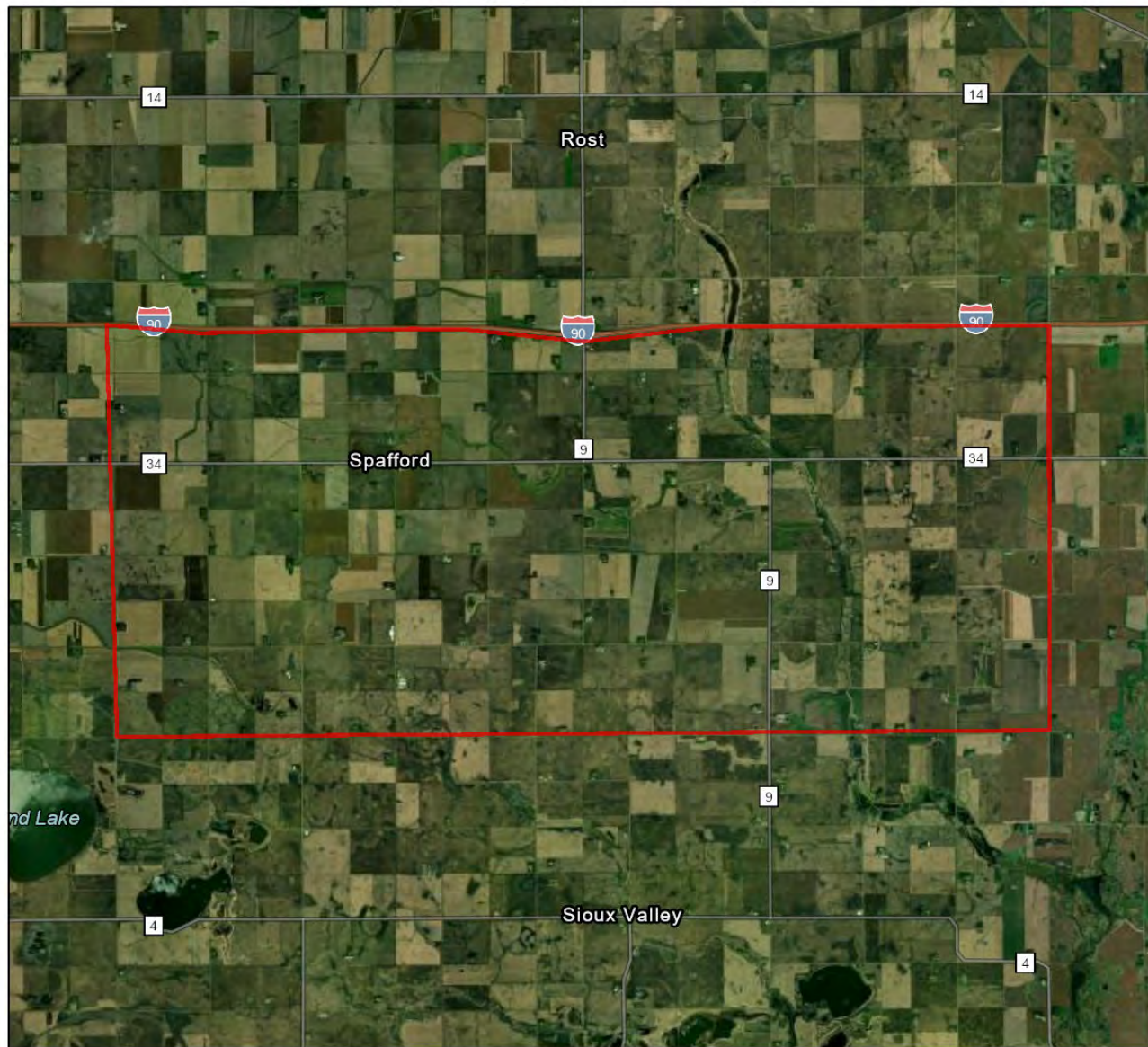
Sincerely,

*Jim Drake* Jim Drake  
Natural Heritage Review Specialist  
[James.F.Drake@state.mn.us](mailto:James.F.Drake@state.mn.us)

Links: USFWS Information for Planning and Consultation (IPaC) tool  
[Information for Planning and Consultation \(IPaC\) tool](#)  
DNR Regional Environmental Assessment Ecologist Contact Info  
[https://www.dnr.state.mn.us/eco/ereview/erp\\_regioncontacts.html](https://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html)

# ITC Forks-Rost

## Aerial Imagery With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 28,419.52

County(s): Jackson

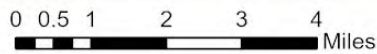
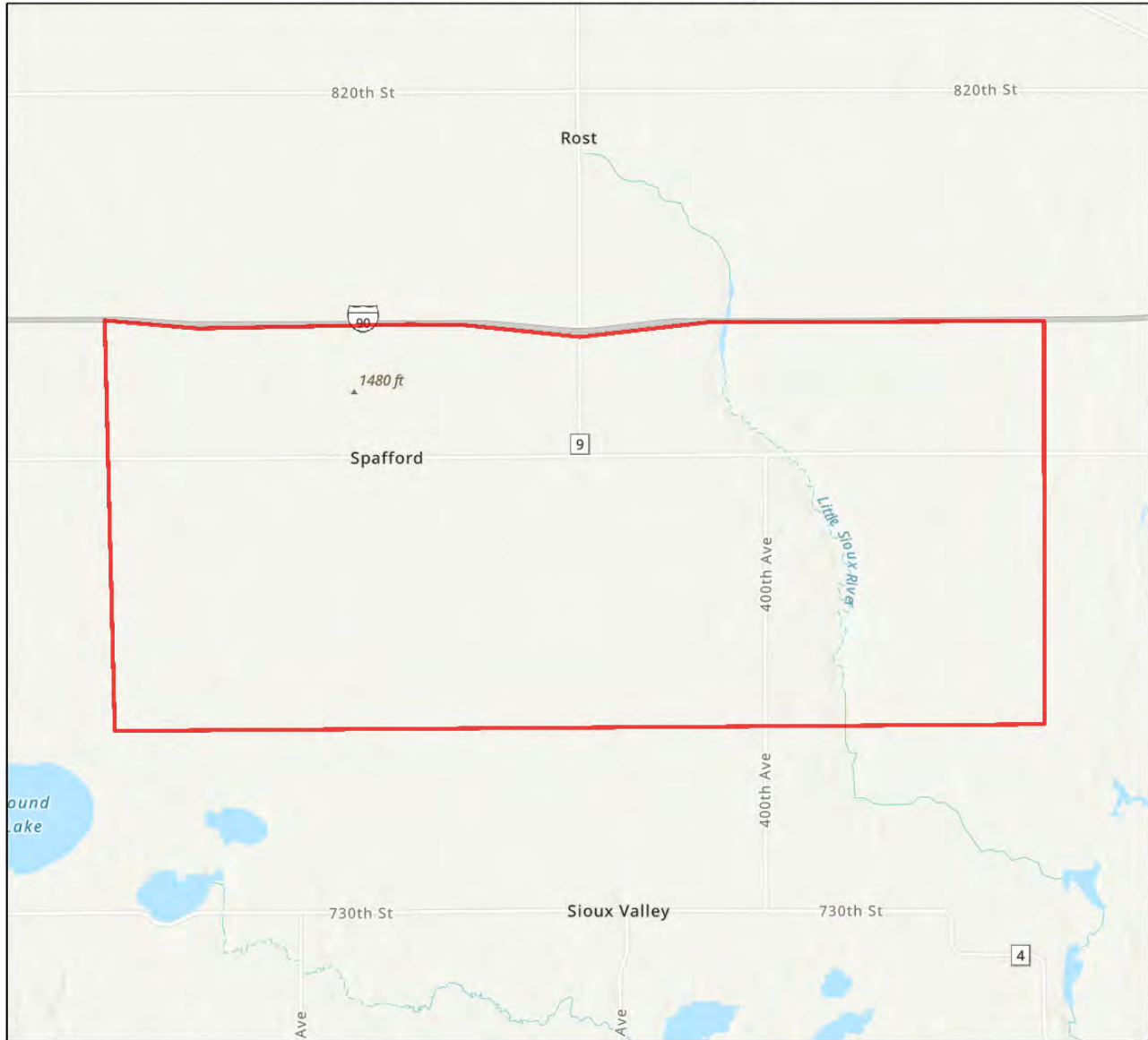
TRS: T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5 +

Earthstar Geographics  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA



# ITC Forks-Rost

## USA Topo Basemap With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 28,419.52

County(s): Jackson

TRS: T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5 +

Esri, NASA, NGA, USGS  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA







August 17, 2023

**VIA Email**

District Headquarters  
U.S. Army Corps of Engineers  
St. Paul District - Regulatory  
332 Minnesota St., Suite E1500  
St. Paul, MN 55101

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota**

To Whom it May Concern:

ITC Midwest (ITC) is proposing to construct a project known as the Forks 161 kV Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

The Project will require a Route Permit from the Minnesota Public Utilities Commission (Commission). Commission approval must be obtained before the Project can be built. ITC plans to submit a Route Permit Application to the Commission in approximately June 2024. As part of this process, ITC has started gathering agency and public input regarding the proposed Project. We would appreciate any input you may have as we prepare the Route Permit Application and work through the Commission's approval process. ITC plans to begin Project construction in the second quarter of 2026.

Please contact ITC if you have information we should consider in evaluating the Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at

[lbroghammer@itctransco.com](mailto:lbroghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosure: Project Overview Map



November 20, 2023

**VIA U.S. Mail**

Catherine Chavers  
Bois Forte Band of Chippewa  
5344 Lake Shore Drive  
Nett Lake, MN 55772

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Catherine Chavers:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades to the transmission system that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage conditions when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

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**Cultural Resources Review:** ITC has engaged Merjent, Inc. (Merjent), an environmental consulting firm based in Minneapolis, to assist with environmental review and permitting for the Project. Merjent's services to the Project include assistance with agency consultations and a cultural resources literature review to assist in Project route identification.

In July 2023, Merjent conducted a preliminary file search for the project boundary. A database search request was submitted to the Minnesota State Historic Preservation Office (SHPO) and the results were compared to information available on the Minnesota Office of the State Archaeologist (OSA Portal). The results of the literature review will be used for Project design planning and ITC proposes to avoid direct impacts to known cultural resources through Project design, if feasible.

ITC respectfully requests your assistance with the identification of any information we should consider in evaluating the proposed Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Jaylen Strong  
Bois Forte Band of Chippewa  
1500 Bois Forte Road  
Tower, MN 55790

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Jaylen Strong:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Kevin Dupuis  
Fond du Lac Band of the Lake Superior Chippewa  
1720 Big Lake Rd  
Cloquet, MN 55720

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Kevin Dupuis:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Evan Schroeder  
Fond du Lac Band of the Lake Superior Chippewa  
1720 Big Lake Rd  
Cloquet, MN 55720

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Evan Schroeder:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Robert Deschampe  
Grand Portage Band of Lake Superior Chippewa  
PO Box 428  
Grand Portage, MN 55605

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Robert Deschampe:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Rob Hull  
Grand Portage Band of Lake Superior Chippewa  
PO Box 428  
Grand Portage, MN 55605

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Rob Hull:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Faron Jackson  
Leech Lake Band of Ojibwe  
190 Sailstar Drive NE  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Faron Jackson:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Amy Burnette  
Leech Lake Band of Ojibwe  
190 Sailstar Drive NE  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Amy Burnette:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

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November 20, 2023

**VIA U.S. Mail**

Brandy Toft  
Leech Lake Band of Ojibwe  
15756 State 371 NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Brandy Toft:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Amanda Wold  
Leech Lake Band of Ojibwe  
15757 State 371 NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Amanda Wold:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Eugene Strowbridge  
Leech Lake Band of Ojibwe  
15758 State 371 NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Eugene Strowbridge:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Robert Larsen  
Lower Sioux Indian Community in the State of Minnesota  
Po Box 308  
Morton, MN 56270

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Robert Larsen:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Cheyenne St. John  
Lower Sioux Indian Community in the State of Minnesota  
Po Box 308  
Morton, MN 56270

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Cheyenne St. John:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Melanie Benjamin  
Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Melanie Benjamin:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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**Cultural Resources Review:** ITC has engaged Merjent, Inc. (Merjent), an environmental consulting firm based in Minneapolis, to assist with environmental review and permitting for the Project. Merjent's services to the Project include assistance with agency consultations and a cultural resources literature review to assist in Project route identification.

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consider in evaluating the proposed Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Charles Lippert  
Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Charles Lippert:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Perry Bunting  
Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Perry Bunting:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

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November 20, 2023

**VIA U.S. Mail**

Terry Kemper  
Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Terry Kemper:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

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November 20, 2023

**VIA U.S. Mail**

Susan Klapel  
Mille Lacs Band of Ojibwe  
43408 Oodena Drive  
Onamia, MN 56359

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Susan Klapel:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Johnny Johnson  
Prairie Island Indian Community  
5636 Sturgeon Lake Road  
Welch, MN 55089

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Johnny Johnson:

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Noah White  
Prairie Island Indian Community  
5636 Sturgeon Lake Road  
Welch, MN 55089

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Noah White:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Darrell Seki  
Red Lake Band of Chippewa Indians  
15484 Migizi Drive  
Red Lake, MN 56671

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Darrell Seki:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Kade Ferris  
Red Lake Band of Chippewa Indians  
PO Box 274  
Red Lake, MN 56671

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Kade Ferris:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Keith Anderson  
Shakopee Mdewaketon Sioux Community  
2330 Sioux Trail NW  
Prior Lake, MN 55372

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Keith Anderson:

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Leonard Wabasha  
Shakopee Mdewaketon Sioux Community  
2330 Sioux Trail NW  
Prior Lake, MN 55372

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Leonard Wabasha:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Kevin Jensvold  
Upper Sioux Community  
PO Box 147  
Granite Falls, MN 56241

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Kevin Jensvold:

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Samantha Odegard  
Upper Sioux Community  
PO Box 147  
Granite Falls, MN 56241

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Samantha Odegard:

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Michael Fairbanks  
White Earth Nation  
35500 Eagle View Road  
Ogema, MN 56569

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Michael Fairbanks:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Jaime Arsenault  
White Earth Nation  
PO Box 418  
White Earth, MN 56591

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Jaime Arsenault:

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Catherine Chavers  
Minnesota Chippewa Tribe  
PO Box 217  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Catherine Chavers:

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Rob Hull  
Minnesota Chippewa Tribe  
PO Box 428  
Grand Portage, MN 55605

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Rob Hull:

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Shannon Geshick  
Minnesota Indian Affairs Council  
161 St Anthony Ave STE 919  
St Paul, MN 55103

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Shannon Geshick:

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*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

November 20, 2023

**VIA U.S. Mail**

Shannon Geshick  
Minnesota Indian Affairs Council  
1819 Bemidji Ave N STE 2  
Bemidji, MN 56601

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

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**Cultural Resources Review:** ITC has engaged Merjent, Inc. (Merjent), an environmental consulting firm based in Minneapolis, to assist with environmental review and permitting for the Project. Merjent's services to the Project include assistance with agency consultations and a cultural resources literature review to assist in Project route identification.

In July 2023, Merjent conducted a preliminary file search for the project boundary. A database search request was submitted to the Minnesota State Historic Preservation Office (SHPO) and the results were compared to information available on the Minnesota Office of the State Archaeologist (OSA Portal). The results of the literature review will be used for Project design planning and ITC proposes to avoid direct impacts to known cultural resources through Project design, if feasible. ITC respectfully requests your assistance with the identification of any information we should

consider in evaluating the proposed Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

December 7, 2023

**VIA U.S. Mail**

Brandy Toft  
Leech Lake Band of Ojibwe  
190 Sailstar Drive NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Brandy Toft:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades to the transmission system that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage conditions when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

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consider in evaluating the proposed Project. If you would like to request a meeting, please contact me at (763) 257-6821 or at [mrothfork@itctransco.com](mailto:mrothfork@itctransco.com), or contact Lori Broghammer at (641) 220-4600 or at [lbrogghammer@itctransco.com](mailto:lbrogghammer@itctransco.com). We would be happy to discuss any questions that you may have about the Project.

Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

December 7, 2023

**VIA U.S. Mail**

Amanda Wold  
Leech Lake Band of Ojibwe  
190 Sailstar Drive NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Amanda Wold:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

The proposed Project is the result of a joint study between ITC, GRE, and Missouri River Energy Services (MRES) to determine long-term reliability and load serving needs for the Worthington area and to identify potential upgrades to the transmission system that may be needed for area reliability. The existing configuration of the transmission system in the Worthington area leaves the system susceptible to low voltage conditions when certain transmission facilities are out of service. The Forks Switching Station and Forks-Rost Transmission Line are components of an overall area plan that will include complementary projects by MRES and GRE to ensure the long-term reliability and resilience in the transmission system. Project route identification, environmental and engineering studies, construction, and operation activities will take place within the Project Study Area (shown in the attached figure).

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Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps

December 7, 2023

**VIA U.S. Mail**

Eugene Strowbridge  
Leech Lake Band of Ojibwe  
190 Sailstar Drive NW  
Cass Lake, MN 56633

**Re: ITC Midwest's Forks 161 kV Switching Station and Forks-Rost 161 kV  
Transmission Line Project  
Jackson County, Minnesota  
Tribal Notification of State Regulated Project**

Dear Eugene Strowbridge:

ITC Midwest LLC (ITC) is proposing to construct the Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile long 161 kV high voltage transmission line from the new Forks Switching Station to a new Rost Substation to be constructed by Great River Energy (GRE), east of the City of Worthington, Minnesota (see attached figure).

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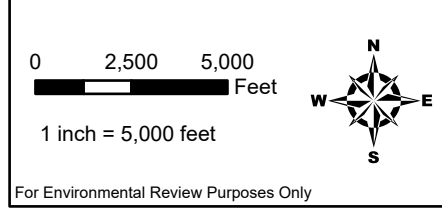
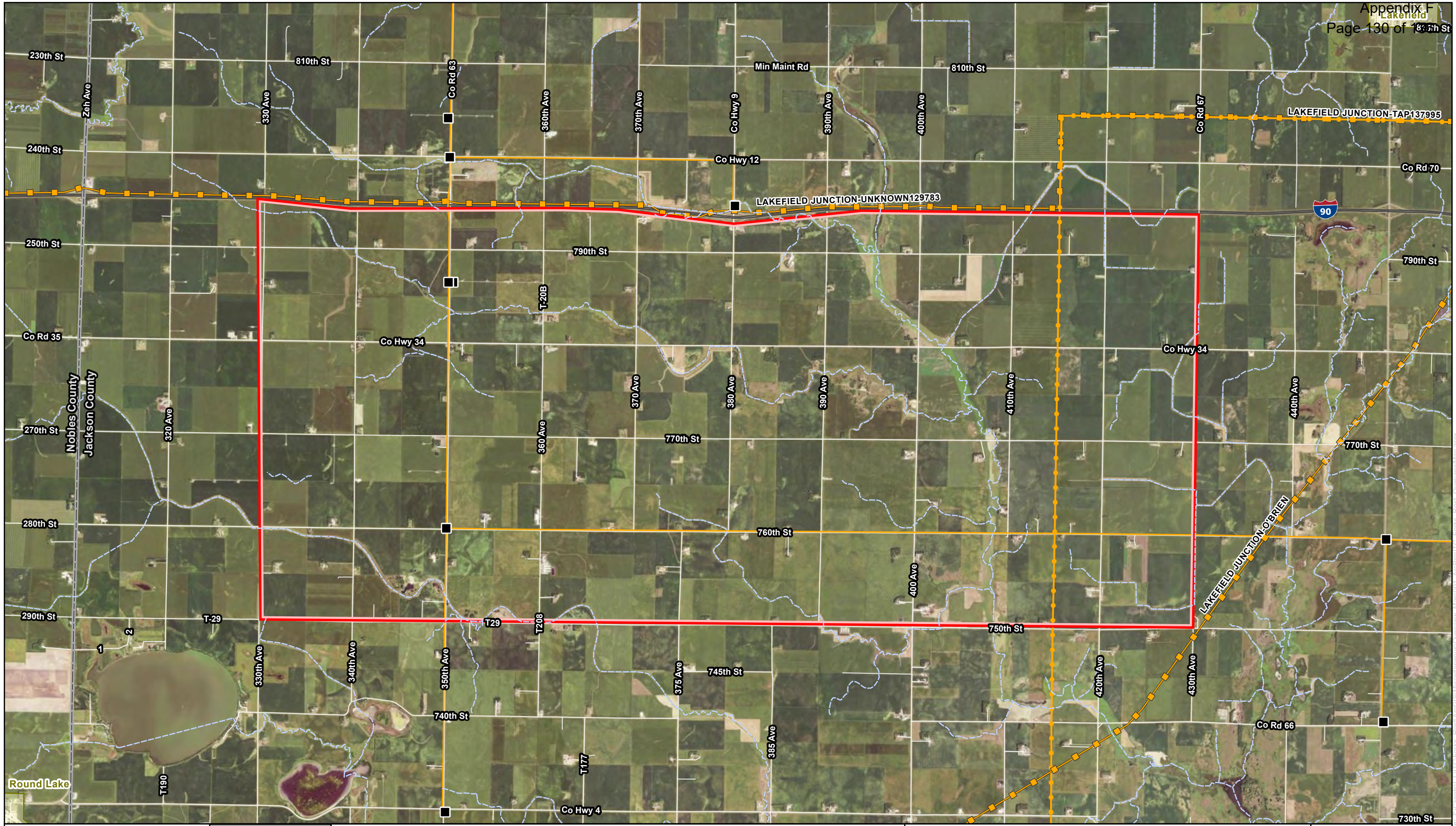
Sincerely,

*Mark Rothfork*

Mark Rothfork, Lead Permitting Specialist  
ITC Midwest

Enclosures    Project Overview Maps





**Forks 161 kV Switching Station and  
Forks-Rost 161 kV Transmission Line Project  
ITC**  
Project Location  
Jackson County, Minnesota

- Project Study Area
- County Boundary
- Municipal Boundary
- ~ NHD Waterbody
- Existing Substation
- Existing Transmission Line
  - ◆— 345 kV
  - ◆— 100-161 kV
  - ◆— Less than 100 kV





## LEECH LAKE BAND OF OJIBWE

### *Tribal Historic Preservation Office*

*Gina M Lemon, Tribal Historic Preservation Officer*

*Anita M Cloud, Tribal Historic Preservation Assistant*

---

November 30, 2023

Via Internet

ITC Midwest LLC  
Attn: Mark Rothfork; Lead Permitting Specialist  
100 East Grand Avenue, Suite 360  
Des Moines, IA 50309

**RE: Construction, 161 kV new switching station and new Forks-Rost 161 kV switching station, the six-mile transmission line to connect the switching stations.**

East of Worthington, MN to Southwest of Lakefield, MN. (Following I-90)  
Jackson County, MN

**LL THPO No. 23-145-NCRI**

Dear, Mark Rothfork,

Thank you for the opportunity to comment on the above referenced project. It has been reviewed pursuant to the responsibilities given the Tribal Historic Preservation Officer (THPO) by the National Historic Preservation Act of 1966, as amended in 1992, and the Procedures of the Advisory Council on Historic Preservation (38CFR800).

**I have reviewed the documentation. After careful consideration of our records, I have determined that the Leech Lake Band of Ojibwe does not have any known recorded sites of religious or culturally identified resources in this area.**

Should any human remains or suspected human remains be encountered, all work shall cease and the following personnel should be notified immediately: County Sheriff's Office and the Office of the State Archaeologist. If any human remains or culturally affiliated objects are inadvertently discovered, this will prompt the process to which the Band will become informed.

Please note the above determination does not "exempt" future projects from Section 106 review. In the event of any other tribe notifying us of concerns for a specific project, we may reenter into the consultation process.

You may contact me at (218) 335-2940 if you have questions regarding our review of this project. Please refer to the LL-THPO Number as stated above in all correspondence with this project.

Respectfully submitted,

*Gina M Lemon*

Tribal Historic Preservation Officer

---

Leech Lake Tribal Historic Preservation Office - Established in 1996

190 Sailstar Drive NE \* Cass Lake, MN 56633

Phone (218) 335-2940 \* Fax (218) 335-2974

[gina.lemon@llojibwe.net](mailto:gina.lemon@llojibwe.net)

**From:** [Byron, Haley \(DNR\)](#)  
**To:** [John Cannon](#)  
**Cc:** [Rothfork, Mark](#); [Broghammer, Lori J.](#); [Warzecha, Cynthia \(DNR\)](#)  
**Subject:** RE: EXTERNAL: Fwd: [EXT] ITC Midwest's Forks 161 kV Switching Station & Forks-Rost Transmission Line Project  
**Date:** Tuesday, September 12, 2023 10:29:02 AM  
**Attachments:** [image003.png](#)  
[image004.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)  
[image006.jpg](#)  
[image010.png](#)  
[Erosion\\_InvasiveSpecies\\_StandardGuidance\\_20230110.pdf](#)

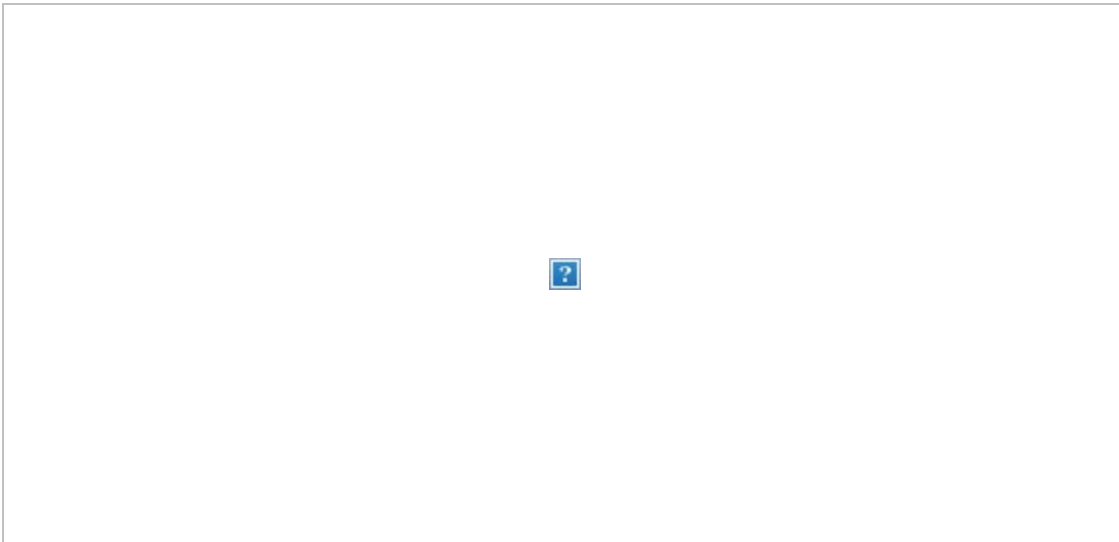
---

Hello John,

Please review the below comments and reach out if you have any questions.

### **US Fish and Wildlife Service Waterfowl Production Area**

There is one USFWS Waterfowl Production Area located within the study area and 10+ to the south and southeast of the area. Please consult with the USFWS regarding these areas and potential impacts.



### **Wildlife Considerations**

Several rare bird species have been observed in close proximity to the study area. Steps to avoid and mitigate impacts to the below species should be included in your construction plan, including flight diverters. Impacts to Trumpeter swans are of particular concern.

MN Status: Special Concern

1. Trumpeter Swan <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ABNJB02030>
  - Collision's with power lines is a major threat leading to Trumpeter Swan losses
2. Forster's Tern <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ABNNM08090>

MN Status: Endangered

1. Henslow's sparrow <https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ABPBXA0030>

### Facility Lighting

We recommend using shielded and downward facing lighting to minimize visual and ecological impacts. We also recommend that projects using LED lighting follow [MnDOT's approved products for luminaries](#), which limit the maximum nominal color temperature for 400K.

**Erosion and Invasive Species Control** - see attachment for guidance.

Best,

### Haley Byron

Regional Environmental Assessment Ecologist | Southern Region EWR

#### Minnesota Department of Natural Resources

117 Rogers Street

Mankato, MN 56001

Office: 507-389-8813

Cell: 507-910-8963

Email: [haley.byron@state.mn.us](mailto:haley.byron@state.mn.us)

[mndnr.gov](http://mndnr.gov)



---

**From:** John Cannon <[john.cannon@merjent.com](mailto:john.cannon@merjent.com)>

**Sent:** Thursday, August 17, 2023 2:53 PM

**To:** Byron, Haley (DNR) <[Haley.Byron@state.mn.us](mailto:Haley.Byron@state.mn.us)>

**Cc:** Rothfork, Mark <[MRothfork@Itctransco.com](mailto:MRothfork@Itctransco.com)>; Broghammer, Lori J.

<[lbroghammer@Itctransco.com](mailto:lbroghammer@Itctransco.com)>; Warzecha, Cynthia (DNR) <[cynthia.warzecha@state.mn.us](mailto:cynthia.warzecha@state.mn.us)>

**Subject:** RE: EXTERNAL: Fwd: [EXT] ITC Midwest's Forks 161 kV Switching Station & Forks-Rost Transmission Line Project

**This message may be from an external email source.**

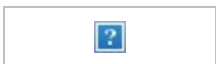
Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

---

Haley – Attached is the study area shapefile for the Forks-Rost Project.

**John Cannon, MS**

612.746.1614 direct  
952.239.5920 mobile  
[john.cannon@merjent.com](mailto:john.cannon@merjent.com)



1 Main Street SE, Suite 300  
Minneapolis, MN 55414  
612.746.3660  
[www.merjent.com](http://www.merjent.com)

---

**From:** Rothfork, Mark <[MRothfork@Itctransco.com](mailto:MRothfork@Itctransco.com)>  
**Sent:** Thursday, August 17, 2023 2:16 PM  
**To:** John Cannon <[john.cannon@merjent.com](mailto:john.cannon@merjent.com)>  
**Subject:** EXTERNAL: Fwd: [EXT] ITC Midwest's Forks 161 kV Switching Station & Forks-Rost Transmission Line Project

**CAUTION:** This email originated from outside of Merjent.

Can you send Haley a shapefile of the study area and cc me and Lori?

Thank you.

~Mark

---

**From:** Byron, Haley (DNR) <[Haley.Byron@state.mn.us](mailto:Haley.Byron@state.mn.us)>  
**Sent:** Thursday, August 17, 2023 1:33:28 PM  
**To:** Rothfork, Mark <[MRothfork@Itctransco.com](mailto:MRothfork@Itctransco.com)>  
**Cc:** Warzecha, Cynthia (DNR) <[cynthia.warzecha@state.mn.us](mailto:cynthia.warzecha@state.mn.us)>  
**Subject:** [EXT] ITC Midwest's Forks 161 kV Switching Station & Forks-Rost Transmission Line Project

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Do not open attachments from unknown senders.  
Do not click on links from unknown senders.  
Contact the ITC Helpdesk with any questions or concerns.

---

Hello Mark,

Thank you for your letter requesting comments regarding the Forks 161 kV Switching Station & Forks-Rost Transmission Line Project. To help with the review please provide a shapefile of the proposed project.

Thank you,

**Haley Byron**

Regional Environmental Assessment Ecologist | Southern Region EWR

**Minnesota Department of Natural Resources**

117 Rogers Street  
Mankato, MN 56001

Office: 507-389-8813

Cell: 507-910-8963

Email: [haley.byron@state.mn.us](mailto:haley.byron@state.mn.us)

[mndnr.gov](http://mndnr.gov)



---

**Notice:** This email and any of its attachments (collectively, the "Communication") may contain: (1) privileged, proprietary, non-public, and/or confidential information protected by law; and/or (2) information pertaining to electric transmission projects, functions, or operations that could have a material effect on the energy market if disclosed to energy market participants. This Communication is for the sole use of the intended recipient(s) and should not be shared with anyone else. Unauthorized use or disclosure of any kind is strictly forbidden. If you received this Communication in error please notify the sender, and permanently delete the original and any copies or printouts. This Communication may also contain "Level 1 - Confidential-CEII" or "Level 2 - Restricted-CEII" information as defined in the ITC CIP-1101 Information Protection Program; if it does, it will be marked as such and contain additional restrictions.

---

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**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT  
332 MINNESOTA STREET, SUITE E1500  
ST. PAUL, MN 55101-1323

08/21/2023

Regulatory File No. MVP-2023-01027-RLG

**THIS IS NOT A PERMIT**

Mark Rothfork  
East Grand Avenue  
Suite 360  
Des Moines, Iowa 50309

To: Mark Rothfork:

We have received your submittal described below. You may contact the Project Manager with questions regarding the evaluation process. The Project Manager may request additional information necessary to evaluate your submittal.

File Number: MVP-2023-01027-RLG

Applicant: Mark Rothfork

Project Name: ITC Midwest Forks - Rost 161 kV Transmission Line Pre-App

Project Location: Section 3 of Township 102 N, Range 36 W, Jackson County, Minnesota (Latitude: 43.6741398877949; Longitude: -95.1541148628624)

Received Date: 08/15/2023

Project Manager: Rachel Gralnek  
(651) 290-5276  
Rachel.Gralnek@usace.army.mil

Additional information about the St. Paul District Regulatory Program can be found on our web site at <http://www.mvp.usace.army.mil/missions/regulatory>.

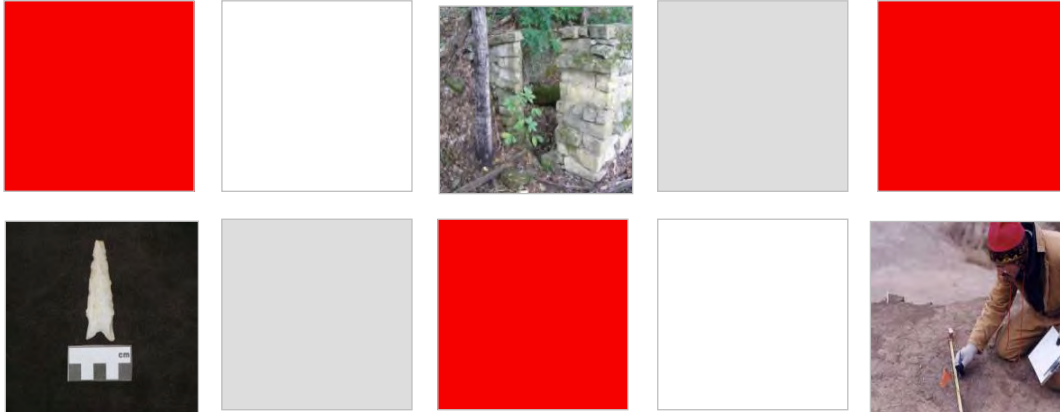
Please note that initiating work in waters of the United States prior to receiving Department of the Army authorization could constitute a violation of Federal law. If you have any questions, please contact the Project Manager.

Thank you.

U.S. Army Corps of Engineers  
St. Paul District  
Regulatory Branch

## **Appendix G**

### **Natural Heritage Information System, USFWS Species List, and Phase Ia Cultural Resources Literature Search**



## **ITC Midwest**

### **Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project Jackson County, Minnesota**

PREPARED BY

Merjent, Inc.  
1 Main Street SE, Suite 300  
Minneapolis, Minnesota 55414

Kevin Mieras

**Kari Krause, MA, RPA  
Principal Investigator**

July 2023



## TRADE SECRET DATA EXCISED

Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project  
Jackson County, Minnesota

---

**EXECUTIVE SUMMARY**

ITC Midwest (ITC) proposes to construct the Forks-Rost 161 kV Transmission Project (Project) in Jackson County, Minnesota. ITC contracted with Merjent, Inc. (Merjent) to conduct a Phase Ia literature review to identify any cultural resources within a 29-square-mile area (Study Area) surrounding the area where the finalized layout will be placed. In July 2023, Merjent conducted the literature review of all archaeological survey reports, archaeological site files, and historic architectural sites within the Study Area using data provided by the Minnesota State Historic Preservation Office and Office of the State Archaeologist, as well as by reviewing nineteenth-century General Land Office maps, historical atlases, and historical aerial photography.

The Phase Ia literature review for the Study Area identified 2 previous cultural resource investigations, 1 previously recorded archaeological site, and 9 recorded architectural structures within the Study Area. Should the Project require compliance with federal or state historic preservation laws, Merjent recommends a Phase I archaeological survey be conducted for the Project. Archaeological work should comply with the *State Archaeologist's Manual for Archaeological Projects in Minnesota* (Anfinson 2011) and the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (National Park Service 1983).

## TRADE SECRET DATA EXCISED

Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project  
Jackson County, Minnesota

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Appendix A      Project Figures

**ABBREVIATIONS AND ACRONYMS**

BCE	Before the Common Era
BLM	Bureau of Land Management
CE	Common Era
GLO	General Land Office
ITC	ITC Midwest
Merjent	Merjent, Inc.
MNDNR	Minnesota Department of Natural Resources
OSA	Office of the State Archaeologist
Project	Forks-Rost 161kV Transmission Project
SHPO	Minnesota State Historic Preservation Office
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
Study Area	29-square-mile area within which the final Project layout will be located

**TRADE SECRET DATA EXCISED**

Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project  
Jackson County, Minnesota

**1.0 PROJECT DESCRIPTION**

ITC Midwest (ITC) proposes to construct the Forks-Rost 161 kV Transmission Project (Project) located in Jackson County, Minnesota (see Figure 1 in Appendix A). Although the Project design has not been finalized, it will be located within the legal locations provided in Table 1.0-1 (Study Area). Merjent, Inc. (Merjent) is assisting ITC with preparation of their Route Permit Application for the Minnesota Public Utilities Commission (MPUC). The MPUC requires consideration of project impacts to cultural and historical resources by following relevant state historic preservation laws, notably the Field Archaeology Act (MS 138.31-42) and the Private Cemeteries Act (MS 307.08). ITC contracted Merjent to conduct a Phase Ia literature review for the Project. The results of the literature review will be used for Project design planning. There are currently no federal or state nexus for the Project.

Township	Range	Sections
102N	37W	13-35
102N	38W	13-16, 21-28, 33-36
101N	37W	1-6
101N	38W	1-4

**1.1 METHODOLOGY**

The literature search included an analysis of protected datasets on file at the Minnesota State Historic Preservation Office (SHPO) and the Minnesota Office of the State Archaeologist (OSA). Merjent archaeologist Kevin Mieras received the results of a request for data regarding known archaeological sites and historic structures within the study area of the Project (Study Area) from SHPO on July 21, 2023. The OSA maintains a secure online dataset of known and suspected archaeological sites, which is regularly updated and referenced (OSA Portal). Mr. Mieras reviewed the OSA Portal files and archived copies of site forms for all known sites within the Study Area.

Merjent also reviewed nineteenth-century General Land Office (GLO) maps and notes on file with the Bureau of Land Management (BLM) (BLM 2023), historical atlases, and aerial photographs from 1938 to 1954 provided on the OSA Portal.

Since geographic information system shapefiles of archaeological survey locations and archaeological site boundaries are not available from SHPO or OSA, Merjent digitized previous site locations based on digital files provided by SHPO and available on the OSA Portal. The results of the literature review are presented in Section 3.0. Finally, Mr. Mieras reviewed background materials on file at Merjent and publicly available data sources available online for information about Jackson County and the ecological setting of the Study Area.

**2.0 ENVIRONMENTAL AND CULTURAL BACKGROUND**

The Study Area is in the Coteau Moraines Subsection of the North Central Glaciated Plains Section of the Prairie Parkland Province (Minnesota Department of Natural Resources [MNDNR] 2023). The Coteau Moraines Province traverses part of a high glacial landform that stretches across southeastern South Dakota, southwestern Minnesota, and northwestern Iowa. The

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subsection contains two distinctive parts consisting of the middle coteau and outer coteau. The Coteau Moraines Subsection is bound by a steep escarpment in the northeast and a transition from shallow wind-blown silt deposits over glacial till to deep loess deposits in the southwest.

## 2.1 TOPOGRAPHY

Topography within the Coteau Moraines Subsection varies between the middle and outer coteau. The middle coteau consists of rolling moraine edges. The outer coteau varies from gently to steeply rolling and hilly. Several streams have created straight, narrow ravines cut through the escarpment along the northwest edge of the subsection (MNDNR 2023). Topography within the Study Area is gently rolling hills.

## 2.2 HYDROLOGY

The Coteau Moraines Subsection is primarily drained to the northeast into the Minnesota River and to the south into the Des Moines River. The middle coteau contains few lakes. The outer coteau contains more lakes and wetlands than the middle coteau due to a poorly developed drainage network (MNDNR 2020). The Project drains directly into Judicial Ditch No. 28, which drains into the Little Sioux River, located just outside the eastern boundary of the Study Area.

## 2.3 GEOLOGY

Bedrock within the Coteau Moraines Subsection consists of cretaceous shale, sandstone, and clay covered by up to 800 feet of glacial till (MNDNR 2020; Morey and Walton 1976).

## 2.4 SOILS

According to Natural Resources Conservation Service (NRCS) soils data, there are 28 different soil units anticipated within the Study Area (NCRS 2023) (see Table 2.4-1). Water covers 19.2 acres (0.1 acre) of the Study Area. Nine of these soils exhibit depth and are well drained and therefore have potential to contain encounter intact archaeological deposits. These soils include Dickinson, Estherville, Terril, Truman, Clarion, Dickman, Swanlake, Storden, and Omsrud. Review of the typical profile of these soil types indicates no potential for deeply buried cultural deposits. Although there is potential to encounter archaeological deposits within these soils, Holliday (2004) states that soil series mapped by the NRCS potentially provide clues but should be recognized as having considerable limitations in archaeological applications. Descriptions of the soil types expected to be encountered within the Study Area are provided below.

Soil Series	Map Unit Symbol(s)	Landscape position	Acres of Study Area	Percent of Study Area
Dickinson	27B/27C	Interfluves on dissected till plains and stream terraces in river valleys	273.7	1.0%
Wadena	39A/39B	Glacial outwash plains	94.0	0.3%
Estherville	41A/41B/41C	Outwash plains, stream terraces, valley trains, and kames on moraines	182.0	0.6%
Canisteo	86	Rims of depressions, depressions, and flats on moraines or till plains	293.0	1.0%
Terril	94B	Toeslopes, footslopes, base slopes, drainageways, and swales on	13.9	<0.1%



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TABLE 2.4-1

## Soil Types Mapped in the Study Area

Soil Series	Map Unit Symbol(s)	Landscape position	Acres of Study Area	Percent of Study Area
		alluvial fans, and treads and risers on stream terraces		
Collinwood	96	Glacial lake plains	3,609.1	12.7%
Truman	101B	Moraines and glacial lake plains	1,378.1	4.8%
Clarion	102B/102B2	Uplands	7,833.0	27.6%
Webster	113	Uplands	580.6	2.0%
Crippin	118	Uplands	821.5	2.9%
Kingston	197	Moraines and glacial lake plains	122.3	0.4%
Lura	211/1914	Ground moraines and glacial lake plains	1,400.4	5.0%
Waldorf	229	Moraines and glacial lake plains	5,197.8	18.3%
Spillville	313	Nearly level flood plains and gently sloping footslopes on uplands	81.7	0.3%
Dickman	327B/327C	Deltas, stream terraces, valley trains, and outwash plains	103.8	0.3%
Delft	336	Missing	331.9	1.2%
Biscay	392	Glacial outwash plains, till plains, flood plains, valley trains, and stream terraces	4.1	<0.1%
Zook	664	Flood plains and stream terraces in river valleys and drainages on uplands	468.5	1.6%
Spicer-Lura Complex	813	Glacial lake plains, ground moraines, and loess-mantled uplands	3,501.8	12.3%
Clarion-Swanlake	887C/887D	Ground moraines, till plains, and uplands	25.5	0.1%
Clarion-Storden Complex	921C2	Glacial and ground moraines.	138.4	0.5%
Omsrud-Storden Complex	960D2	Ground moraines	43.6	0.2%
Udorthents-Pits Complex	1030	N/A	153.3	0.5%
Glencoe	1051	Closed depressions on moraines	5.5	<0.1%
Coland	1833	Floodplains and alluvial fans in river valleys and upland drainageways in dissected till plains	266.6	.9%
Lakefield	1907	Glacial lake plains	51.9	0.2%
Klossner	L13A	Depressions on moraines, till plains, lake plans, flood plains, and seeps	0.6	<0.1%
Nicollet	L85A	Till plains and moraines	1,402.9	4.9%
Water	W	N/A	19.2	0.1%

## 2.5 FLORA AND FAUNA

Few remnants of presettlement vegetation remain within the Coteau Moraines Subsection as agriculture is currently the predominant land use. Presettlement vegetation consisted of mostly tallgrass prairie. Wet prairies and forests were restricted to stream margins. Edible plants within

the subsection included acorns, ground plum, and prairie turnip in the uplands with cattails, water lilies, and limited wild rice within lacustrine areas.

Presettlement fauna were dominated by bison and occasional elk. White-tailed deer and small animals were abundant along river valleys. Wetlands and lakes within the outer coteau contain various species of waterfowl, aquatic mammals, and fish (MNDNR 2020; Gibbon et al. 2002).

## **2.6 CULTURAL AND HISTORICAL OVERVIEW**

Culturally, the Project is within the Minnesota Archaeological sub-region 2s (Prairie Lakes Region South). The Prairie Lakes Region South covers most of southwestern Minnesota and extends into southeastern South Dakota and Northwestern Iowa. Within Minnesota, the sub-region includes all or part of Lac qui Parle, Yellow Medicine, Lincoln, Lyon, Murray, Nobles, Redwood, Cottonwood, Jackson, Brown, Watonwan, Martin, Blue Earth, and Faribault counties (Gibbon et al. 2002).

### **2.6.1 Precontact Period (10,900 BCE–1,650 CE)**

The first inhabitants of Minnesota are known as Paleoindians (10,900 to 7,500 years Before the Common Era [BCE]). These people were highly nomadic hunter-gatherers, moving in small bands in search of food and other subsistence resources; however, in the Late Glacial and Early Holocene forests of Minnesota, Paleoindians likely relied more on gathering and the hunting of a variety of smaller animals. Paleoindian sites are small, relatively ephemeral, and commonly identified with the recovery of distinctive spear points that occur across much of North America (Gibbon et al. 2002).

The Paleoindian peoples were followed by Archaic Tradition hunter-gatherers. At the end of the Ice Age, around 10,000 years BCE, the climate became warmer and drier, which led to major changes in plant and animal communities. Spruce forests followed the retreating glacial ice northward and were replaced by a new landscape comprised of extensive lakes and rivers. Many large-game species became extinct. Archaic Tradition hunters-gatherers (7,500 to 500 BCE) adapted to this new environment, shifting their focus to smaller game such as deer and elk, the abundant fish and shellfish in the numerous lakes and rivers, and wild plants such as nuts and berries (Gibbon et al. 2002).

The Archaic peoples appear to have been less nomadic than the Paleoindians and lived in smaller household groups. Archaic sites are identified by large notched and stemmed projectile points. Immense sedimentation during the early part of the Archaic, corresponding with the Early and Middle Holocene periods, resulted in many Archaic Tradition sites being deeply buried under river valley deposits; therefore, these sites are not usually evident in surficial contexts (Gibbon et al. 2002).

The Woodland Tradition followed the Archaic Tradition. In Minnesota, the Woodland culture is separated into two periods: the earlier Initial Woodland period (ca. 500 BCE to 500 years into the Common Era [CE]), and the later Terminal Woodland period (500 to 1650 CE) (Gibbon et al. 2002).

The frequent surficial expression of Woodland site locations, coupled with burial mounds that frequently mark their place, has resulted in more frequent documentation and excavation of Woodland sites. Due to this higher frequency of identification, many Woodland sites have also been grouped into specific regional archaeological cultures (Gibbon et al. 2002; Gibbon 2012).

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The Initial Woodland period is primarily marked by the emergence of precontact ceramic traditions and burial mounds. Regional archaeological cultures of the Initial Woodland period include Howard Lake, Malmo, Elk Lake, and Laurel (Gibbon et al. 2002; Gibbon 2012).

The Terminal Woodland period has been defined throughout eastern and central Minnesota, the Red River Valley, and portions of the Dakotas (Gibbon 2012). During this period, populations began to increase, which in turn led to an increase in the size and number of precontact sites. Burial mounds became more prevalent and the cultural material artifacts began shifting to smaller, unnotched triangular projectile points and thinner ceramic vessels that were more globular in shape. Agriculture and wild rice harvests also increased (Gibbon et al. 2002; Gibbon 2012).

In the northern portion of the state, ceramic types and burial practices indicate specific regional archaeological cultures, including Kathio, Blackduck, and Psinomani. In the southern portion of the state, primarily comprised of deciduous forests and prairie, some cultures adopted the cultivation of maize and the construction of effigy burial mounds (Gibbon et al. 2002; Gibbon 2012). By the end of the Initial Woodland, maize horticulture had spread to the northern portion of the state (Boyd and Surette 2010)

Around approximately 1000 CE, Mississippian populations from Cahokia, near St. Louis, Missouri, began to extend their influence northward into the Upper Mississippi River Valley and evidence suggests that there were attempts at colonization. Archaeologists tend to regard some southern Minnesota Terminal Woodland cultures as the northern expression of a “Mississippian” lifeway, distinguished by distinctive ceramic styles, larger and more diverse artifact assemblages, and evidence of maize production. In southern Minnesota, three Mississippian complexes have been identified: Silvernale, Oneota, and Plains Village (Gibbon et al. 2002). It was the Mississippian peoples in the south, and the Terminal Woodland peoples in the north, who had contact with the first Europeans to explore Minnesota in the mid-seventeenth century (Gibbon et al. 2002; Gibbon 2012).

### **2.6.2 Contact Period (1650–1837 CE)**

The Contact Period includes American Indian and Euro-American contexts. The OSA subdivides the American Indian context into “Indeterminate” or “Eastern Dakota,” and the Euro-American context into “Indeterminate,” “French,” “British,” and “Initial US” (Gibbon 2012). This section focusses on developing a cultural context and temporal framework for sites relevant to the Project.

Because the Project occurs on traditional Dakota lands, a brief description of the Dakota is warranted. DeMallie (2001) states that Dakota and Lakota (also known as Sioux) tribes share common language, history, social organization, and culture. They were first mentioned in 1640 (Thwaites 1898:18:231) and at that time occupied the area between Mille Lacs and the Missouri River and south into central Iowa. Three divisions were distinguished by the early nineteenth century: the Santee, Yankton and Yanktonai (Dakota), and Teton (Lakota), which mirrored geographical, linguistic, and cultural distinctions. Following government administrators, anthropologists grouped all three divisions under the designation “Dakota” (for example, Dorsey 1897; Deloria 1944; Holder 1970). Researchers tend to minimize the use of the term “Sioux” for two reasons: 1) it had a foreign origin in an Ojibwa ethnonym, and 2) it was said to mean “snake” and therefore has pejorative connotations (DeMallie 2001).

Oral histories and various linguistic reconstructions are similar regarding the origins of the Tribe. Linguistic studies place the Proto-Dakota west of Lake Michigan in southern Wisconsin, southeastern Minnesota, northwestern Iowa, and northern Illinois (Munson 1975). Dakota

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traditions recorded by Nicollet in 1839 indicate an origin near the northern lakes east of the Mississippi prior to moving westward—initially by the Teton, then the Yankton and Yanktonai, and lastly the Santee (DeMallie 1976). A tradition of the Mdewakanton group of Santee states that their ancestors left the lakes around the headwaters of the upper Mississippi and moved to the region of the Minnesota River because bison were more plentiful (Commissioner of Indian Affairs 1849:1006). Oral traditions also state that the Assiniboine split off from a band of Yanktonai (Riggs 1893).

Conventional archaeological methods are unable to answer questions regarding Dakota origins at this time. Generally, sites identified with the precontact Dakota on the northeastern fringe of the plains are lumped into the Woodland Tradition in Minnesota as are early contact sites (Eggen 1952; Winchell 1911).

In the heavily forested regions within Dakota territory, deer were the principal game; however, the plains Dakota made their livelihood hunting bison (DeMallie 2001). In the mid-seventeenth century, the eastern Dakota groups hunted bison in the grassland-forest savannah east of the Mississippi River. War with other groups, notably the Illinois, Fox, and other Central Algonquian tribes, all of whom had access to guns and who hunted bison. This competition for resources likely caused the Dakota to hunt west of the Mississippi River. Also, by the mid-seventeenth century, the Ojibwe began to move west from Sault Sainte Marie to regions they inhabited at the time of Euro-American contact. Initially the Dakota and Ojibwe warred, but eventually came to peaceful terms (for the most part) and the Dakota allowed the Ojibwe to hunt in their territory and act as middlemen in trade with the French (DeMallie 2001).

By the early eighteenth century, traders had built several posts and forts within Dakota territory, including one at Duluth and Fort l'Huillier on the Blue Earth River, a tributary of the Minnesota River (DeMallie 2001). The fort on the Blue Earth River was seen as an unwelcome incursion into the territory of the Eastern Dakota and they retaliated by robbing two French traders and fired on the post. The western Dakota groups denied any responsibility, which demonstrates the autonomy between villages. Fort l'Huillier was abandoned in 1702, and the Dakota lacked direct contact with the French for the next 20 years (DeMallie 2001).

During this time, the Dakota depended on Fox and Ojibwe as intermediaries for trade. First in 1714 and again in 1721, the Fox made peace with the Dakota, not only for trade purposes, but also as an alliance against the Ojibwe who were expanding southwest from Lake Superior (Edmunds and Peyser 1993). The French negotiated a peace between the Ojibwe and Dakota with the result of undermining the alliance between the Dakota and Fox, although with the unintended result of also undermining the peace with the Ojibwe due to the opening of direct trade (Hickerson 1962).

In the 1730s, Pierra Gaultier de Varennes sieur de la Verendrye financed his search for the western sea by trading with the Native Americans and built posts west and north of Lake Superior. La Verendrye allied himself with the Ojibwe and Cree and, in 1734, his eldest son accompanied a Cree war party against the Dakota (DeMallie 2001). This action precipitated hostilities by the Dakota against the French. By 1736, several Frenchmen—including la Verendrye's youngest son, a Jesuit missionary, and 20 voyageurs—were killed, scalped, and decapitated, with their heads placed on beaver skins.

Also, by 1736, most of the Dakota lived west of the Mississippi River. That year the number of Dakota living east of the Mississippi was 300 compared with 2,000 Dakota on the prairies. Although warfare with the Ojibwe had forced the Dakota to abandon their villages around Leech

Lake and Mille Lacs, this did not result in an end in hostilities. While Ojibwe traditions recount many victories against the Dakota, most of the Dakota had already located to the Mississippi and Minnesota River valleys due to the availability of bison and the advantages of trade with the French (DeMallie 2001). A 1697 map, with additions in 1699 and 1702, depicts 22 Dakota villages in the upper Mississippi River region (DeMallie 2001).

The Dakota of the east lived in small, scattered villages, each of which was composed of five or six families (Radisson 1961). In addition to these small villages, there were larger ones that they returned to annually, which housed up to 7,000 people (Radisson 1961). Radisson (1961) describes some of the lodges as being covered with mats and some with skins and says lodges were rounded and constructed with long poles. Other accounts indicate that the Dakota of the west lived in tipis that they carried with them whenever they relocated (Neill 1890). There is no mention of Dakota utilization of dogs or horses during this period.

When the Dakota returned to their villages in the spring, they used cache pits to contain surplus wild rice. Radisson (1961) writes that they sowed corn, but that the harvest was small. The wild rice afforded them nourishment throughout the year. Conversely, the Jesuit Relations mention in 1642 that the Dakota harvested corn, but in 1670–1672 it was stated that they did not till land (Thwaites 1898:23:225, 1899:55:169). During the summer, the Dakota gathered for communal bison hunts, which were extremely important since these hunts provided surplus meat to be dried for winter use and hides (De Mallie 2001). Hennepin (1903) reported that sometimes 100 to 120 bison were killed in a single hunt. Because a single hunter or small group could frighten the bison herd away, hunts were strictly controlled by the chiefs for the communal good. Anyone who hunted before the bison were surrounded was liable for punishment by specially appointed police. Hennepin (1903) described these police as carrying clubs, overturning lodges of offenders, and confiscating their food.

Following the communal bison hunt, the Dakota of the east would return to their villages in the lake county for the wild rice harvest season, part of which, as noted above, was stored in underground cache pits (Radisson 1961; Hennepin 1903). Corn and various other roots, fruits, and berries were gathered and eaten while fresh (Hennepin 1961). Le Sueur provided additional detail in that the Dakota of the west hunted extensively, utilizing the prairies between the upper Mississippi and the Missouri Rivers where canoes were not needed. They practiced no horticulture, did not gather wild rice, and had no fixed villages. All their travel was by foot (Wedel 1974).

DeMallie (2001) writes that the Dakota placed their dead either on scaffolds or buried them in the ground. Oftentimes the bones from the scaffold burial were collected, re-buried in the ground, and surrounded by a ring of stones. DeMallie (2001) also reports that occasionally the bones of the dead were preserved, honored, and carried on war expeditions.

The first mention of the Dakota of the west was in 1679–1680. Hennepin (1961) was told by the Dakota of the east that 50 to 75 miles above present-day Minneapolis lived the Nations Tintonha (Inhabitants of the Meadows).

By the late seventeenth and eighteenth centuries, the image that develops from the literature regarding the Dakota is one of small village groups bonded by common language and customs (DeMallie 2001). Dakota villages were bands that traveled around independently of each other and the dispersion of the Dakota of the east into many small villages likely related to the need for each group to use the resources of the area most efficiently, particularly the wild rice.

Gates (1965) states that the Dakota had acquired numerous horses by 1774 and used them for both transportation and pack horses. The acquisition of the horse was an integral innovation that fit into the nomadic bison-hunting economy and intensified earlier subsistence patterns (Wissler 1914). Additionally, the Dakota developed cultural traits that ultimately became central to Plains culture, including the intertribal pipe adoption ceremony and the Sun Dance (Parks 1993).

Following the acquisition of the horse, the westward expansion of the Dakota continued in the early 1800s. The Teton, allied with the Cheyenne and Arapaho, pressed westward, driving the Kiowa and the Crow from the Black Hills area and claiming it as their own (DeMallie 1980). This was the period in which the classic western Dakota culture developed.

After the Louisiana Purchase in 1803 by the United States, the establishment of formal relations with the tribes became integral to the government's need to explore and exploit the new territory. During their trip up the Missouri River, Lewis and Clark met with the Yankton, Yanktonai, and Teton tribes and presented peace medals and U.S. flags to their chiefs, affirming their status and power (DeMallie 2001). In 1805, Lt. Zebulon M. Pike traveled up the Mississippi and signed the first treaty with the Dakota. Under the terms of the treaty, the Mdewakonton ceded to the United States two areas of land near the Mississippi River for the construction of military posts, one of which was at the confluence of the Minnesota and Mississippi Rivers where Fort Saint Anthony (later Fort Snelling) was built in 1819.

The Dakota were divided during the War of 1812 with the eastern Dakota siding with the British and the western Dakota siding with the United States. After the war concluded, in 1815, representatives of several tribes were invited to Portage des Sioux where they signed treaties of peace and friendship with the United States. These treaties were noteworthy in that they specified that the Native American signers acknowledged themselves and their tribes to be under the sole protection of the U.S. government—the first extension of federal authority over the Dakota (Kappler 1904–1941).

An 1825 military expedition led by General Henry Atkinson and Indian Agent Benjamin O'Fallon up the Missouri River signed four more treaties with the Yankton, Yanktonai, and Teton (Kappler, 1904–1941). These treaties specified that the Dakota acknowledged living within the United States, recognized its supremacy, and claimed its protection. The treaties also gave the United States the right to regulate all trade and intercourse with the Dakota.

Other treaties had more focused purposes. The 1830 treaty jointly signed by the Santee, Yankton, Sauk, and Fox, Omaha, Iowa, Otoe, and Missouri tribes at Prairie du Chien (Kappler 1904–1941) ostensibly was to end intertribal warfare. In actuality, the Dakota, Sauk, and Fox surrendered two 20-mile-wide strips of land separating their territories from each other. Also significant, this treaty was the first stating that the Dakota were to obtain annuities from the United States payable over a 10-year period in money or goods. Other similar treaties followed in 1836 and 1837, further eroding Santee and Yankton lands with the promise of annuities (Kappler 1904–1941). The non-deliverance of the annuities, resulting in the starvation of the Dakota confined to small reservations, led directly to the 1862 Dakota War.

### **3.0 LITERATURE REVIEW RESULTS**

In July 2023, Merjent conducted a Phase Ia literature review for the Project Study Area. Merjent reviewed archaeological site forms from the OSA Portal and cultural resource reports provided by SHPO. Additionally, nineteenth-century GLO maps and historic aerial photography were reviewed. The results of the Phase Ia literature review are provided below.

### 3.1 PREVIOUS SURVEYS

The results of the SHPO data request and files research indicate that two Phase I investigations have been conducted within the Study Area (Table 3.1-1 and see Figures 1 and 2 in Appendix A). These investigations were conducted in support of a bridge replacement and waterline installation. The survey report for MULT-09-34 was missing from the SHPO files. Therefore, the survey locations associated with this project are not depicted on Figure 1.

Trade Secret Begins	TABLE 3.1-1	Trade Secret Ends
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### 3.2 PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

There is one previously recorded archaeological site in the Study Area (Table 3.2-1 and see Figures 1 and 2 in Appendix A). The site consists of a prehistoric lithic scatter that remains unevaluated for listing to the National Register of Historic Places (NRHP). According to the MnModel (Phase 4) Survey Implementation Model (Minnesota Department of Transportation 2020), the Study Area is within a mosaic of area of “Unknown Site Potential/Poorly Surveyed” and “Low Site Potential/Well Surveyed.” The overall density of previously documented sites in the Study Area is low and potentially reflects the lack of previous survey.

Trade Secret Begins	TABLE 3.2-1	Trade Secret Ends
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According to the Unrecorded Historic Cemeteries layer (Vermeer and Terrell 2011) provided on the OSA Portal, there are three unrecorded cemeteries located within Study Area (Table 3.2-2 and see Figures 1 and 2 in Appendix A). Review of topographic maps and modern aerial imagery depicts platted cemeteries located within the boundaries of each unrecorded historic cemetery, as depicted in the OSA Portal. Although the platted cemeteries are likely the same cemetery as those from Vermeer and Terrell (2011), it is currently unknown if they are in fact the same cemeteries and/or if the historical cemeteries are entirely contained within the modern platted locations.

Trade Secret Begins	TABLE 3.2-2	Trade Secret Ends
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### 3.3 PREVIOUSLY RECORDED ARCHITECTURAL STRUCTURES

Results of the SHPO data request indicate there are 9 recorded architectural structures with the Study Area (Table 3.3-1 and see Figures 1 and 2 in Appendix A). These structures include two town halls, two bridges, one church, and five structures associated with a single historic farmstead. All 9 structures remain unevaluated for listing to the NRHP.

TABLE 3.3-1

Trade Secret Begins

Trade Secret Ends

### 3.4 HISTORICAL MAP REVIEW

Merjent reviewed the 1858-1860 GLO maps and notes on file with the BLM (2023), aerial photographs taken between 1938 and 1954 that are on file with the OSA, modern aerial imagery from Google Earth, and historical plat maps from 1916 (W.W. Hixson & Company 1916). The GLO maps depict no modern features within the Study Area (see Figure 3 in Appendix A). No improvements or cultural features are mentioned in the associated survey notes (BLM 2023).

Review of aerial photographs spanning from 1938 to 2022 show the built environment of the Study Area as relatively unchanged. The 1938 aerial photographs show the cemeteries listed in Table 3.2-1 above and the present-day road system already constructed. The majority of the farmsteads in the 1938 aerial photographs are present in modern aerial imagery.

Review of the W.W. Hixson Atlas from 1916 shows the dozens of structures in the Study Area (see Figure 4 in Appendix A). The majority of the structures depicted in the atlas correlate with structures identified in modern aerial imagery. The locations of structures that are no longer extant may indicate the presence of historic archaeological sites.



#### 4.0 SUMMARY AND RECOMMENDATIONS

The Phase Ia literature review for the Study Area identified 2 previous cultural resource investigations, 9 recorded architectural properties, and 1 previously recorded archaeological site within the Study Area. The results of the literature review will be used for Project design planning. It is recommended that ITC avoid direct impacts to known cultural resources and cemeteries through Project design, if feasible.

Merjent understands that the Project is under the jurisdiction of the Minnesota PUC and applicable state and local laws. Should the Project require compliance with federal or state historic preservation laws, Merjent recommends Phase I archaeological survey where direct impacts are proposed and an above ground historic architecture inventory be conducted for the Project where the project could result in viewshed impacts to the structures. Archaeological work should comply with the *State Archaeologist's Manual for Archaeological Projects in Minnesota* (Anfinson 2011) and the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (National Park Service 1983).

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## TRADE SECRET DATA EXCISED

Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project  
Jackson County, Minnesota

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## TRADE SECRET DATA EXCISED

Phase Ia Literature Review for the Forks-Rost 161 kV Transmission Project  
Jackson County, Minnesota

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**APPENDIX A**

**Project Figures**

The following Project Figures are excised in their entirety

Figures 1.1 through 1.4;  
Figures 2.1 through 2.72;  
Figures 3.1 through 3.4; and  
Figures 4.1 through 4.4



## Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

**Project Name:** ITC Forks-Rost

**Project Proposer:** ITC Midwest

**Project Type:** Utilities, Transmission (electric, cable, phone)

**Project Type Activities:** ;

**TRS:** T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5, T101 R37 S6, T101 R38 S1, T101 R38 S2, T101 R38 S3, T101 R38 S4, T101 R38 S5, T101 R38 S9 +

**County(s):** Jackson

**DNR Admin Region(s):** South

**Reason Requested:** PUC Site or Route Application

**Project Description:** The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 6-mile-long ...

**Existing Land Uses:** Agricultural

**Landcover / Habitat Impacted:** Agricultural

**Waterbodies Affected:** TBD

**Groundwater Resources Affected:** TBD

**Previous Natural Heritage Review:** No

**Previous Habitat Assessments / Surveys:** No

### SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
<b>Project Details</b>	No Comments	No Further Review Required
<b>Ecologically Significant Area</b>	Comments	Local Conservation Value - Comment Protected Wetlands: Calcareous Fens
<b>State-Listed Endangered or Threatened Species</b>	No Comments	No Further Review Required
<b>State-Listed Species of Special Concern</b>	No Comments	No Further Review Required
<b>Federally Listed Species</b>	No Records	Visit IPaC For Federal Review



Minnesota Department of Natural Resources  
Division of Ecological & Water Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155-4025

July 27, 2023

Project ID: MCE #2023-00566

Mandy Bohnenblust  
Merjent, Inc.  
1 Main Street SE, Suite 300  
Minneapolis, MN 55414

RE: Automated Natural Heritage Review of the proposed ITC Forks-Rost  
See Cover Page for location and project details.

Dear Mandy Bohnenblust,

As requested, the above project has been reviewed for potential effects to rare features. Based on this review, the following rare features may be adversely affected by the proposed project:

*Ecologically Significant Area*

- The Minnesota Biological Survey (MBS) has identified one or more Sites of Biodiversity Significance within or adjacent to the project boundary. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Factors taken into account during the ranking process include the number of rare species documented within the site, the quality of the native plant communities in the site, the size of the site, and the context of the site within the landscape.

Areas with Potential Local Conservation Value - The proposed project may impact one or more areas that have local conservation value. These areas are ranked as Below in the MBS Sites of Biodiversity Significance layer, and are retained in the layer as negative data. These areas do not meet the minimum biodiversity threshold for statewide significance but may have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat.

- One or more calcareous fens have been documented in the vicinity of the proposed project. A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. Calcareous fens are fragile and may be impacted by stormwater runoff, any activity within the fen, or any activity that affects groundwater hydrology including groundwater pumping, contamination, or discharge). For more information regarding calcareous fens, please see the [Calcareous Fen Fact Sheet](#). To



minimize stormwater impacts, please refer to the Minnesota Pollution Control Agency's [General Principles for Erosion Prevention and Sediment Control](#) in the Minnesota Stormwater Manual. Please note that calcareous fens are "Special Waters" and a [buffer zone](#) may be required.

Depending on the distance to the calcareous fen(s), additional guidance may be provided below if you indicated that potential project activities include wetland impacts or groundwater impacts. If you did not correctly identify wetland or groundwater impacts as part of your project, this impact analysis may be incorrect.

*State-Listed Endangered or Threatened Species*

No state-listed endangered or threatened species have been documented in the vicinity of the project.

*State-Listed Species of Special Concern*

No state-listed species of special concern have been documented in the vicinity of the project.

*Federally Listed Species*

The Natural Heritage Information System does not contain any records for federally listed species within one mile of the proposed project. Please note, however, that not all federally listed species are tracked within the NHIS. To ensure compliance with federal law, please conduct a federal regulatory review using the U.S. Fish and Wildlife Service's online [Information for Planning and Consultation \(IPaC\) tool](#).

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and the project description provided on the cover page. If project details change or construction has not occurred within one year, please resubmit the project for review.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. For information on the environmental review process or other natural resource concerns, you may contact your [DNR Regional Environmental Assessment Ecologist](#).

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

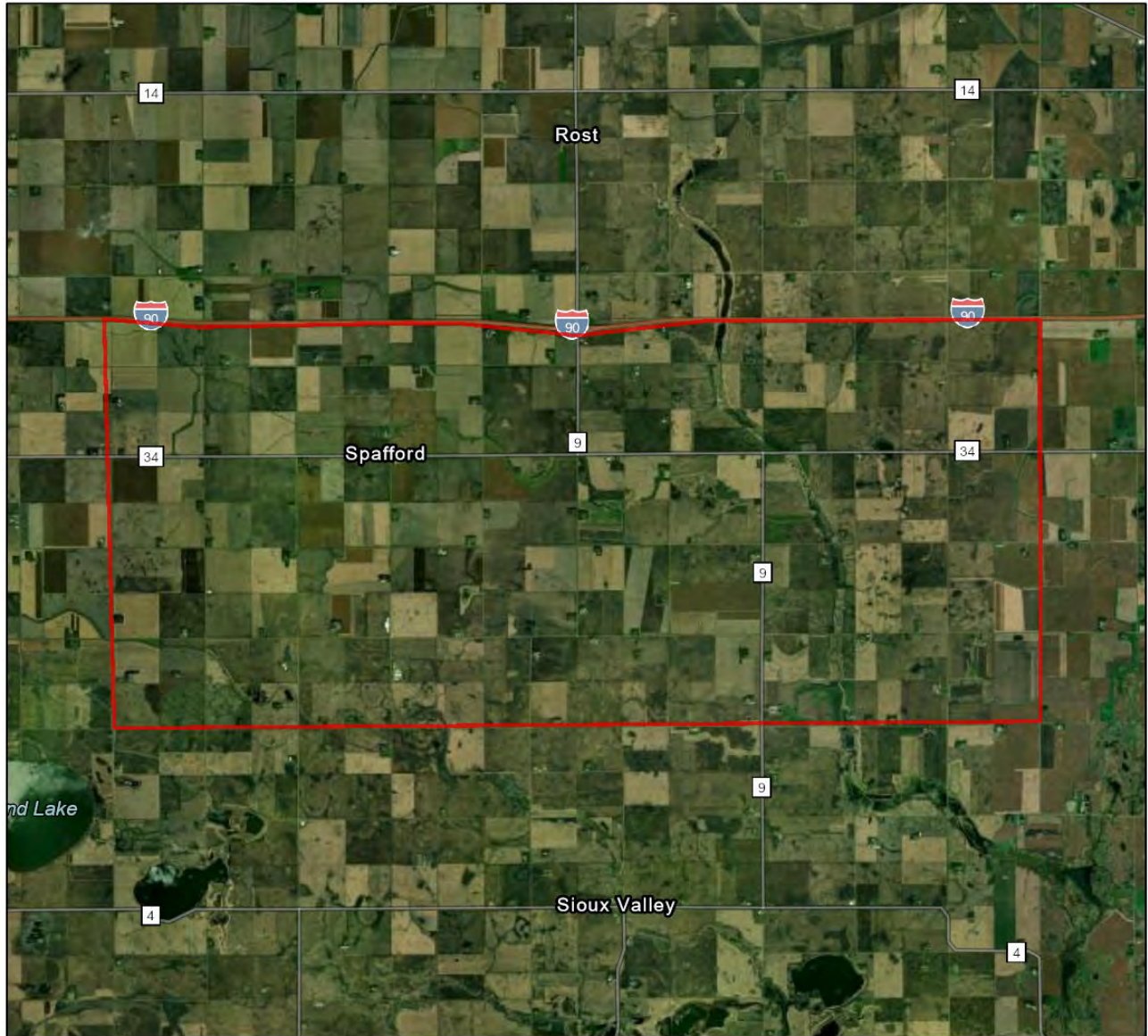
Sincerely,

*Jim Drake* Jim Drake  
Natural Heritage Review Specialist  
[James.F.Drake@state.mn.us](mailto:James.F.Drake@state.mn.us)

Links: USFWS Information for Planning and Consultation (IPaC) tool  
[Information for Planning and Consultation \(IPaC\) tool](#)  
DNR Regional Environmental Assessment Ecologist Contact Info  
[https://www.dnr.state.mn.us/eco/ereview/erp\\_regioncontacts.html](https://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html)

# ITC Forks-Rost

## Aerial Imagery With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 28,419.52

County(s): Jackson

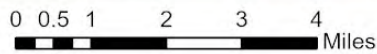
TRS: T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5 +

Earthstar Geographics  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA



# ITC Forks-Rost

## USA Topo Basemap With Locator Map



 Project Boundary

Project Type: Utilities, Transmission (electric, cable, phone)

Project Size (acres): 28,419.52

County(s): Jackson

TRS: T101 R37 S1, T101 R37 S2, T101 R37 S3, T101 R37 S4, T101 R37 S5 +

Esri, NASA, NGA, USGS  
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, USDA





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:  
Project Code: 2023-0109355  
Project Name: Forks-Rost

July 26, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

### Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS IPaC system by completing the same process used to receive the enclosed list.

### Consultation Technical Assistance

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

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We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of "no effect" or "may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species' biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a "Not Likely to Adversely Affect" (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a "May Affect" determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for "May Affect" determinations unless otherwise indicated in your output letter.

**Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review.** If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

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3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### **Northern Long-Eared Bats**

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

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**Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

*Please note:* On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's [northern long-eared bat website](#).

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the



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mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

##### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

##### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

#### Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

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## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East  
Bloomington, MN 55425-1659  
(952) 858-0793

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07/26/2023

## PROJECT SUMMARY

Project Code: 2023-0109355  
Project Name: Forks-Rost  
Project Type: Transmission Line - New Constr - Above Ground  
Project Description: Electric Transmission  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.6045035,-95.3153757,1247509,14z>



Counties: Jackson County, Minnesota

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## FLOWERING PLANTS

NAME	STATUS
Prairie Bush-clover <i>Lespedeza leptostachya</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4458">https://ecos.fws.gov/ecp/species/4458</a>	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1669">https://ecos.fws.gov/ecp/species/1669</a>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
JACKSON COUNTY WATERFOWL PRODUCTION AREA OF MN <a href="https://www.fws.gov/refuges/profiles/index.cfm?id=32587">https://www.fws.gov/refuges/profiles/index.cfm?id=32587</a>	80.493

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## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31

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NAME	BREEDING SEASON
<p><b>Black Tern</b> <i>Chlidonias niger</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a></p>	Breeds May 15 to Aug 20
<p><b>Bobolink</b> <i>Dolichonyx oryzivorus</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 20 to Jul 31
<p><b>Chimney Swift</b> <i>Chaetura pelagica</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p><b>Franklin's Gull</b> <i>Leucophaeus pipixcan</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p><b>Hudsonian Godwit</b> <i>Limosa haemastica</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p><b>Lesser Yellowlegs</b> <i>Tringa flavipes</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds elsewhere
<p><b>Marbled Godwit</b> <i>Limosa fedoa</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a></p>	Breeds May 1 to Jul 31
<p><b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p><b>Ruddy Turnstone</b> <i>Arenaria interpres morinella</i>                      This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p><b>Short-billed Dowitcher</b> <i>Limnodromus griseus</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds elsewhere
<p><b>Willet</b> <i>Tringa semipalmata</i>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 5



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## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

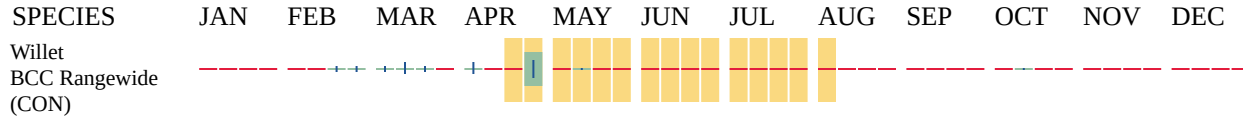
### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe



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Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

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The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1Ax](#)
- [PFO1/EM1Ax](#)
- [PSS1Cx](#)
- [PFO1/EM1A](#)
- [PSS1Ax](#)
- [PFO1C](#)
- [PFO1A](#)
- [PSS1C](#)
- [PFO1Cx](#)

### FRESHWATER EMERGENT WETLAND

- [PEM1Ad](#)
- [PEM1B](#)
- [PEM1C](#)
- [PEM1Cx](#)
- [PEM1Af](#)
- [PEM1A](#)
- [PEM1Ax](#)

### FRESHWATER POND

- [PUBKx](#)
  - [PUBF](#)
  - [PABFx](#)
  - [PABF](#)
  - [PUBHx](#)
  - [PUBFx](#)
  - [PUBH](#)
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RIVERINE

- [R5UBFx](#)
  - [R2UBG](#)
  - [R2UBHx](#)
  - [R4SBC](#)
  - [R4SBCx](#)
  - [R5UBH](#)
  - [R2UBGx](#)
  - [R2UBH](#)
-

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## IPAC USER CONTACT INFORMATION

Agency: Merjent Inc.  
Name: Mandy Bohnenblust  
Address: 1 Main St SE, Suite 300  
City: Minneapolis  
State: MN  
Zip: 55414  
Email: mandy.bohnenblust@merjent.com  
Phone: 6127463677

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## **Appendix H**

### **Open House Materials**

## PROJECT PROFILE

# Forks – Rost (Jackson County) 161 kV Transmission Line Project

## PROJECT OVERVIEW

ITC Midwest is planning to build a new 161 kV (161,000 volt) electric transmission line that travels between ITC Midwest's proposed Forks Substation and the proposed Rost Substation that will be built by Great River Energy in Jackson County. The proposed line is approximately 8.7 miles long. The construction of ITC Midwest's proposed Forks Substation is also part of the project.

The route for the transmission line may change and the final route will be determined by the Minnesota Public Utilities Commission (PUC). (Please see map of the proposed route in Jackson County on the back.)

### ***Why is this line needed?***

The Forks – Rost 161 kV line is a reliability-driven project that will improve transmission system reliability in the Jackson and Nobles County, Minnesota areas. The project was the outcome of a joint area reliability study between Great River Energy, Missouri River Energy Services and ITC Midwest.

**The Forks – Rost project will provide numerous benefits and drive value for electric consumers locally and regionally. When completed, this transmission line will:**

- Increase transmission capacity to **improve system reliability**
- Enhance grid resilience to better **withstand extreme weather**
- **Better serve current and future needs** through increased system capacity
- **Reduce electric system congestion** and improve grid efficiency

### ***Whose approval is required to build this line?***

ITC Midwest will submit a route permit application to the PUC. After the application is submitted, the PUC and Department of Commerce, Energy Environmental Review and Analysis (DOC EERA) staff will facilitate public meetings and provide other opportunities for input from the public and regulatory agencies. The DOC EERA will prepare an environmental assessment for the project. Construction cannot begin until a route permit is granted by the PUC.

### ***What is being done to ensure this line will be safe?***

This line will be designed to meet and even exceed the National Electrical Safety Code (NESC), the nationally-recognized design standard in the United States. Among other things, these codes require construction to meet clearance requirements and withstand extreme weather conditions. As the line owner, ITC Midwest will make sure that the line is clear of trees and other vegetation.



**FOR THE GREATER GRID.**

**ITC MIDWEST** 123 Fifth Street SE, Cedar Rapids, IA 52401  
Locations: Albert Lea, Des Moines, Dubuque, Iowa City, Lakefield, Perry  
**877.ITC.ITC9** (877.482.4829) | [www.itc-holdings.com](http://www.itc-holdings.com)

## PROJECT PROFILE

## Forks – Rost ( Jackson County) 161 kV Transmission Line Project

### **What is ITC Midwest doing to minimize impact on landowners and current land uses?**

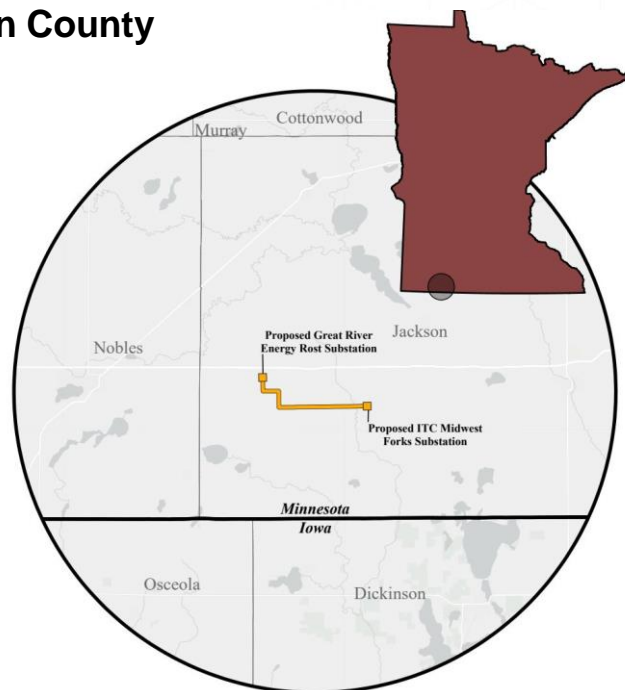
ITC Midwest seeks to minimize the impact of the project on existing land uses. ITC Midwest will follow the routing criteria set forth in Minnesota Rules 7850.4100 through 7850.4400 in designing ITC Midwest's proposed route. ITC Midwest is committed to protecting the environment and will fully compensate landowners for any damages that occur during the construction process. To minimize the footprint of the line, ITC Midwest plans to use steel monopoles.

### **How will ITC Midwest work with landowners?**

Landowner outreach will begin at our open houses where ITC Midwest representatives will discuss explain the process and their rights. ITC Midwest representative will work with landowners to secure voluntary easements upon receiving the route permit from the PUC.

Landowners are compensated for permitting ITC Midwest to secure an easement on their property. ITC Midwest understands and appreciates the impact that new line construction has on landowners and pledges to treat *all* landowners with the utmost respect during this important process.

### **Forks – Rost project proposed route corridor route in Jackson County**



### **Project Contacts**

If you have questions, you can contact ITC Midwest using our toll-free customer line at 1-877-482-4829. Once construction begins, Ryan DeSotel and Chris Davidson will be ITC Midwest's project leads.

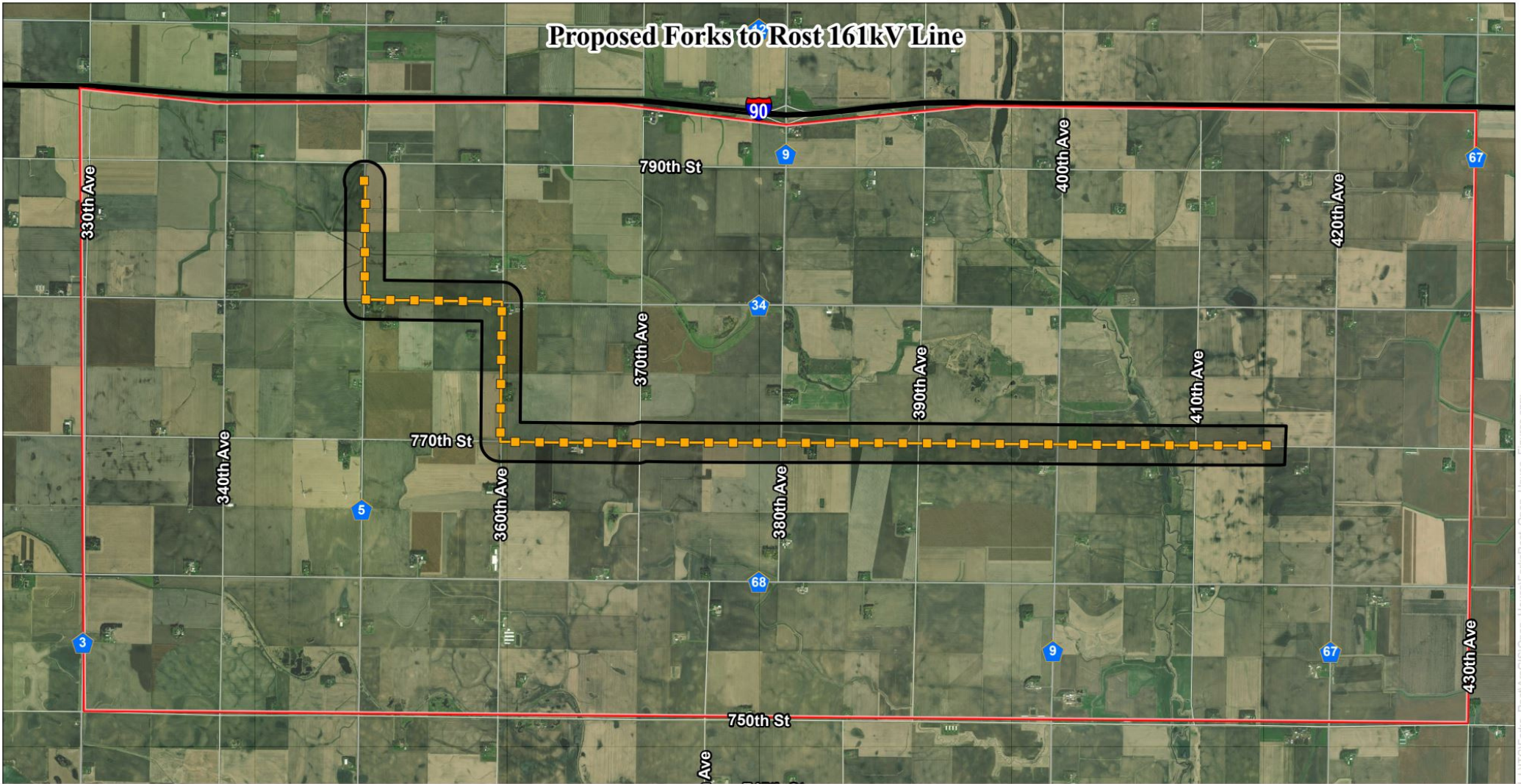


**Ryan DeSotel**  
Project Manager  
(319) 297-6796  
[RDeSotel@itctransco.com](mailto:RDeSotel@itctransco.com)



**Chris Davidson**  
Field Supervisor  
(920) 306-0577  
[CDavidson@itctransco.com](mailto:CDavidson@itctransco.com)

### Proposed Forks to Rost 161kV Line





**FOR THE  
GREATER GRID.**

**JOIN ITC MIDWEST TO LEARN MORE  
ABOUT THIS RELIABILITY INITIATIVE**

ITC Midwest is providing an opportunity for you to ask questions and provide comments about the proposed Forks - Rost 161 kilovolt (kV) Electric Transmission Line Project.

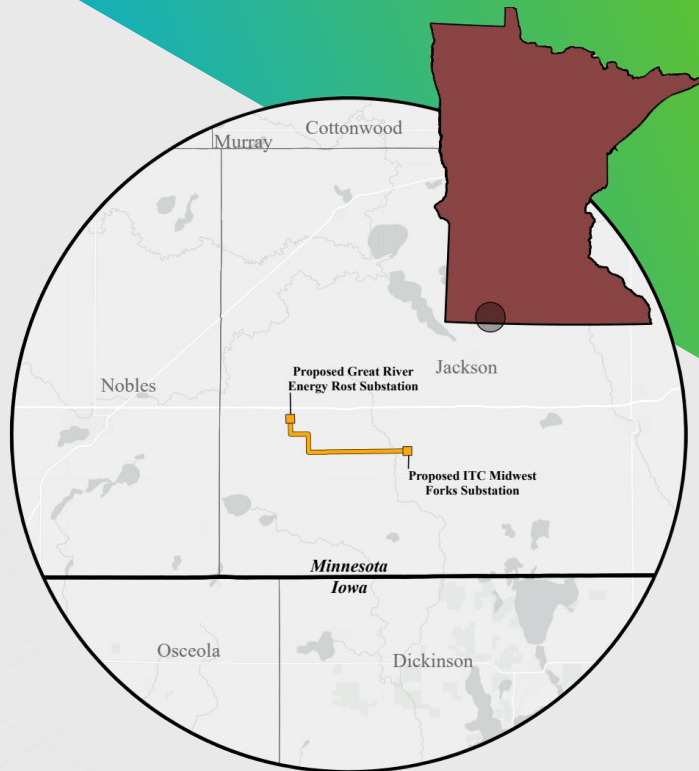
## **OPEN HOUSE**

**Wednesday, January 10, 2024**

**3:30 – 6:00 p.m.**

(Make up date : Tuesday, January 16)

**Lakefield Multi-Purpose Center**  
112 Main Street  
Lakefield, MN



Note: Map is for illustrative purposes and is not indicative of a proposed or suggested route.

## **ITC Midwest**

20789 780th Avenue  
Albert Lea, MN 56007



**FOR THE  
GREATER GRID.**



**FOR THE  
GREATER GRID.**

**THANKS FOR ATTENDING!**

**ITC Midwest is providing an opportunity for you to ask questions and provide comments about the proposed Forks - Rost 161 kilovolt (kV) Electric Transmission Line Project.**

Please fill out the information below and mail back by January 31, 2024.

Name \_\_\_\_\_

Property Information \_\_\_\_\_

Township Range & Section \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**FOR THE  
GREATER GRID.**

**ITC Midwest**  
123 5th Street SE  
Cedar Rapids, IA 52401



Name	Address	Phone
Dem Riley	33762 760 <sup>TH</sup> ST Round Lake	
Dennis Pozson	80611 4900 <sup>TH</sup> AVE	
Dwain Brown	30603 4300 <sup>TH</sup> AVE	
Jim Schubert (Post Township)	39553 820 <sup>TH</sup> ST.	
Rob Toomey	GRE	763-445-5996
Matt Hagelin	GRE	(612)254-5053
Roger Puck		
Terry Post		
SOHN WALKER III POST TWP CHAIR	42549 800 ST.	507-841-0085
Craig Stude	82750 830 <sup>TH</sup> AVE	501-360-7683
Curt Stude	182007 370 <sup>TH</sup> AVE	360-7684

Name	Address	Phone
Ms H Madden	Federated REA	
ANN ERILEY		
Brian Post	Lekefield	
Gene Muntoppa	Breuster	

**Appendix I**  
**Affected Landowner List**

### Forks-Rost Corridor Landowners

Owner	C/O	Address	City, State, Zip Code
Adam Onken		35153 780th St	Round Lake, MN 56167
Arnold Kazemba Credit Trust, et al	C/O James Kazemba	35408 760th St	Round Lake, MN 56167
Behrends Farms LLC	C/O James Behrends	24598 State Hwy 264	Brewster, MN 56119
Brenda Rosin Separte Share Trust		1673 Thomas Dr	East Troy, WI 53120-2606
Brian Post Separate Share Trust		43646 760Th St	Lakefield, MN 56150
Carolyn Synerholm	C/O Northwestern Farm Mgmt. Co.	301 South O'Connell St	Marshall, MN 56258
Charles & Gayle Schmidt		36292 780th St	Round Lake, MN 56167
Cheryle L Wilson Mn Trust		34444 320th St	Ruthven, IA 51358
Dale & Jan Knips Trusts		38185 760th St	Lakefield, MN 56150
Dale & Mary Hesemann Revocable Living Trusts		79250 380th Ave	Lakefield, MN 56150
Darwin & Jody Soleta		84837 380th Ave	Okabena, MN 56161
Dennis & Barbara Christoffer		PO Box 511	Lakefield, MN 56150
Duane Voss Revocable Living Trust		38247 770th St	Lakefield, MN 56150
Dylan & Alisa Majerus		36051 780th St	Round Lake, MN 56167
Dylan Majerus		36051 780th St	Round Lake, MN 56167
Freking Family Farms Inc		Po Box 244	Jackson, MN 56143
Gerald & Gwenlyn Fleace		35131 780th St	Round Lake, MN 56167
Great River Energy		12300 Elm Creek Blvd	Maple Grove, MN 55369
Harlan & Sandra Rademacher		Po Box 133	Lakefield, MN 56150
James & Kimberly Kazemba and Shirley Kazemba Rev Int Trust		35408 760th St	Round Lake, MN 56167
James Kazemba		35408 760th St	Round Lake, MN 56167
Janet K Fischer Revocable Living Trust		607 Milwaukee St	Lakefield, MN 56150
Jerry & Nancy Ackermann		39750 820th St	Lakefield, MN 56150
Jerry Beck Trust		39358 270th St	Worthington, MN 56187
Jim Vanderveen		77964 350th Ave	Round Lake, MN 56167
John Post		36574 Co Hwy 35	Worthington, MN 56187
Kenneth & Margaret Hesemann Trusts		78381 390th Ave	Lakefield, MN 56150
Kevin & Dana Kay Schmid		32804 780Th St	Worthington, MN 56187
Leon & Holly Rozeboom and Jordan Rozeboom Rev Trust		823 Crooked Tree Ln	Dakota Dunes, SD 57049
LHS Investors Group LLP		1362 Springfield Pkwy	Jackson, MN 56143
Lisa Severance		21686 Fellows Ave	Rushmore, MN 56168

**Forks-Rost Corridor Landowners**

<b>Owner</b>	<b>C/O</b>	<b>Address</b>	<b>City, State, Zip Code</b>
Mark & Darcy Murphy		36870 770th St	Round Lake, MN 56167
Mark & Stacie Soleta		38629 790th St	Lakefield, MN 56150
Michael & Ann Trust		303 Hickory Dr	Tahlequah, OK 74464
Naomi Lubben		35280 790th St	Worthington, MN 56187
Paul & Karlyne Ackerman Revocable Living Trusts		40703 770th St	Lakefield, MN 56150
Peter Riley, et al	C/O Michael Riley	31060 820th St	Brewster, MN 56119
Robert & Connie Untiedt		41817 770th St	Lakefield, MN 56150
Thomas Dekoster, et al		200 4th Ave Se	Lemars, IA 51031
Timothy & Sherri S Baumgarn		36375 770th St	Round Lake, MN 56167
Victor & Darlene Gruber Trust et al		520 2nd St Court	West Fargo, ND 58078
Wade Brunk		77884 350th Ave	Round Lake, MN 56167

**Appendix J**  
**Agricultural Impact Mitigation Plan**

# **FORKS 161 kV SWITCHING STATION AND FORKS-ROST 161 kV TRANSMISSION LINE PROJECT**



**ITC Midwest LLC**

## **Agricultural Impact Mitigation Plan**

**Docket Number  
ET6675/TL-24-232**

Prepared by:



September 2024

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### DEFINITIONS

Agricultural Land	Land that is actively managed for cropland, hayland, or pasture, and land in government set-aside programs.
Certifying Agent	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.2.
Cropland	Land actively managed for growing row crops, small grains, or hay.
Decertified or Decertification	Loss of Organic Certification.
Easement	The agreement(s) and/or interest in privately owned Agricultural Land held by ITC Midwest by virtue of which it has the right to construct, operate and maintain the transmission line together with such other rights and obligations as may be set forth in such agreement.
Final Clean-up	Transmission line activity that occurs after the power line has been constructed. Final Clean-up activities may include: removal of construction debris, de-compaction of soil as required, installation of permanent erosion control structures, final grading, and restoration of fences and required reseeding. Once Final Clean-up is finished, Landowner will be contacted to settle all damage issues and will be provided a form to sign acknowledging final construction settlement.
Inspector	Full-time on-site inspector retained by ITC Midwest to verify compliance with requirements of this AIMP during construction of the transmission line. The Inspector will have demonstrated experience with transmission line construction on Agricultural Land.
ITC Midwest	ITC Midwest LLC, a Michigan limited liability company. May also include agents and contractors of ITC Midwest, where appropriate.
Landowner	Person(s), or their representatives, holding legal title to Agricultural Land on the transmission line route from whom ITC Midwest is seeking, or has obtained, a temporary or permanent Easement. "Landowner" includes Tenant, if any.
Non-Agricultural Land	Any land that is not "Agricultural Land" as defined above.
Prohibited Substance	As defined by the National Organic Program Standards, Federal Regulations 7 CFR Part 205.600 through 7 CFR 205.605 using the criteria provided in 7 USC 6517 and 7 USC 6518.
Project	Proposed 161 kilovolt transmission line from new Forks Switching Station to new Rost Substation in Jackson County, Minnesota
Proposed Route	<u>"Route" means the location of a high voltage transmission line between two end points. The route may have a variable width of up to 1.25 miles. (Minnesota Statute 216E.01)</u>
Right-of-Way	The Agricultural Land included in permanent and temporary Easements which ITC Midwest acquires for the purpose of constructing, operating and maintaining the transmission line. Also "ROW."
Subsoil	Soil that is not Topsoil and located immediately below Topsoil.

Tenant	Any person(s) lawfully renting or sharing land for agricultural production which makes up the "Right-of-Way" as defined in this AIMP.
Tile	Artificial subsurface drainage system.
Topsoil	The uppermost horizon (layer) of the soil, typically with the darkest color and highest content of organic matter.

## 1.0 INTRODUCTION

ITC Midwest LLC (ITC Midwest) developed this Agricultural Impact Mitigation Plan (AIMP) with the Minnesota Department of Agriculture (MDA) in compliance with Minnesota Statutes Section 216E.10, subdivision 3(b). The AIMP identifies measures ITC Midwest will take during construction of its Forks 161 kilovolt (kV) Switching Station and Forks-Rost 161 kV Transmission Line Project (Project) to avoid, minimize, mitigate, repair, or provide compensation for impacts on Agricultural Land.

The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 8.5 mile long 161 kV high voltage transmission line from the new Forks Switching Station to the new Rost Substation to be permitted separately and constructed by Great River Energy, east of the City of Worthington, Minnesota. The AIMP and its provisions will be implemented during construction and restoration activities that ITC Midwest undertakes for the Project prior to filing notice of completion of construction with the Minnesota Public Utilities Commission (Commission).

ITC Midwest has asked the Commission to approve a Proposed Route with a width of 1,500 feet (750 feet on either side of the proposed transmission centerline). At a minimum, the Project will have a Right-of-Way (ROW) that is 100 feet wide (typically 50 feet on each side of the transmission centerline).

Capitalized words and other defined terms have the meanings given to them in this AIMP. Use of "Landowner" in this AIMP may be construed to read "Landowner and/or Tenant."

This AIMP and its construction standards and policies apply only to construction activities occurring on privately-owned Agricultural Land. If agricultural drain Tiles are encountered, whether on Non-Agricultural Land or Agricultural Land, ITC Midwest will implement construction standards relating to the repair of Tile on Agricultural Lands discussed further in this AIMP.

No organic farms have been identified along or adjacent to the Proposed Route. If that changes prior to construction of the Project, portions of this AIMP will be updated to identify standards and policies as they apply to Organic Agricultural Land, and those portions of the AIMP will apply only to the types of lands defined in the National Organic Program Rules (7 C.F.R. Parts 205.100; 205.101, and 205.202).

Construction standards and policies identified in this AIMP can be modified through terms in an easement or other agreement between ITC Midwest and the Landowner, as appropriate. In such cases, the Easement or other agreement will control.

## 2.0 GENERALLY

ITC Midwest will negotiate in good faith with each Landowner to secure an agreement containing the conditions or provisions necessary to implement the provisions of this AIMP. The mitigative actions set forth in this AIMP are subject to negotiation and approval or change by Landowner so long as such changes are negotiated with and acceptable to ITC Midwest. Mitigative actions will be executed by qualified contractors retained by ITC Midwest, unless otherwise specified or agreed upon by the Landowner. ITC Midwest and the Landowner may agree that certain activities will be performed by Landowner. ITC Midwest maintains a damage claim policy outlining

compensation policies for damage to property, including but not limited to crop damages, and will provide a copy of this policy to the Landowner during Easement acquisition negotiations.

Unless otherwise specified in this AIMP or in an easement or other agreement negotiated between ITC Midwest and Landowner, construction standards and policies or mitigative actions will be implemented within 90 days after completion of Final Clean-up activities on Agricultural Land. Weather conditions or other circumstances identified by mutual agreement between Landowner and ITC Midwest may delay implementation of mitigative actions after Final Clean-up. Where practicable, ITC Midwest may make temporary repairs. These temporary repairs may be made to minimize additional property damage or interference with the Landowner's access to the subject Agricultural Land.

ITC Midwest or its contractors will implement the construction standards and policies or mitigative actions identified within this AIMP so long as such activities do not conflict with any applicable Federal or State rules, regulations, permits, licenses, approvals, or conditions obtained by ITC Midwest for the Project. Should any activity within this AIMP be determined to be unenforceable due to Federal or State rules, regulations, permits, licenses, approvals, or conditions, ITC Midwest will inform the Landowner and will identify a reasonable alternative activity.

Prior to ROW preparation for, or construction of, the Project, ITC Midwest will make a good faith effort to provide each Landowner with contact information, including a phone number and address, that can be used to contact ITC Midwest regarding any impacts to Agricultural Land or other construction-related concerns or questions. ITC Midwest will provide updated information to the Landowner within a reasonable time of any change to ITC Midwest contacts.

### **3.0 CONSTRUCTION STANDARDS**

#### **3.1 MITIGATIVE ACTIONS**

ITC Midwest will reasonably restore and/or compensate the Landowner, as appropriate, for damages caused by ITC Midwest as a result of Project construction, and as outlined in this plan. ITC Midwest will decide whether to restore land and/or compensate the Landowner after a discussion with the Landowner.

#### **3.2 ADVANCE NOTICE OF ACCESS**

ITC Midwest will make good faith efforts to provide notice to the Landowner in advance of the commencement of construction activities on Agricultural Land. Notice may include personal contact, email, letter, or telephone contact.

#### **3.3 ITC MIDWEST AGRICULTURAL INSPECTOR**

ITC Midwest's Agricultural Inspector will:

1. Be a full-time member of ITC Midwest's inspection team.
2. Be responsible for verifying ITC Midwest's compliance with the provisions of this AIMP during construction.

3. Work collaboratively with other members of ITC Midwest's construction team and land agents in achieving compliance with this AIMP.
4. Observe construction activities on Agricultural Land on a regular basis.
5. Have the authority to stop construction activities that are determined to be out of compliance with the provisions of this AIMP.
6. Document instances of noncompliance and work with construction personnel to identify and implement appropriate corrective actions as needed.
7. Provide construction personnel with training on provisions of this AIMP before construction begins.
8. Provide construction personnel with field training on specific topics as needed.

### **3.4 POLE PLACEMENT AND TEMPORARY ACCESS ROUTES**

During the design of the Project, ITC Midwest's engineering, land, and permitting staff will seek input from Landowner, as practicable, to identify pole placement locations and to address issues that arise regarding poles. Prior to construction, the land agents will review the staked pole locations with the Landowner when requested to do so by the Landowner.

ITC Midwest will discuss the location of temporary access routes to be used for construction purposes with the Landowner.

- A. Temporary access routes will be designed so as to not impede proper drainage and will be built to mitigate soil erosion on or near the temporary access routes.
- B. After Final Clean-up, temporary access routes may be left intact through mutual agreement of the Landowner and ITC Midwest unless otherwise restricted by Federal, State, or local regulations.
- C. If a temporary access route is to be removed, the Agricultural Land upon which the temporary access route is constructed will be returned to its previous use and restored to reasonably equivalent condition as existed prior to construction.

### **3.5 SWITCHING STATION CONSTRUCTION**

The Project will require construction of the new Forks Switching Station. During construction, ITC Midwest will segregate Topsoil that must be removed for groundwork. At ITC Midwest's sole discretion, excess Topsoil may be made available to a Landowner who wishes to use this Topsoil on their property in an upland location. If the Topsoil is made available to a Landowner in other areas of the Project, it will be provided "as is" and the Landowner, not ITC Midwest, will be responsible for verifying that the quality of the Topsoil meets the Landowner's farming requirements. The Landowner is solely responsible for obtaining any required local, state, or federal permits or permissions that may be necessary for the placement of Topsoil on his or her property.

### 3.6 AGRICULTURAL TILE

ITC Midwest will contact an affected Landowner for their knowledge of Tile locations prior to installation of the transmission line. ITC Midwest will attempt to identify Tile if the Landowner does not know if Tile is located at the proposed pole location. Tile that is damaged, cut, or removed as a result of ITC Midwest's location efforts will be promptly repaired. The repair will be reported to the Inspector.

If Tile is damaged by Project construction, the Tile will be repaired with materials of the same quality as that which was damaged. If Tiles on or adjacent to the transmission line construction area are adversely affected by construction, ITC Midwest will take such actions as are necessary to restore the Tile function, including the relocation, reconfiguration, and replacement of the existing Tile. ITC Midwest will correct Tile repairs, as needed, after completion of the transmission line construction, provided the repairs were made by ITC Midwest or their agents or designees.

The affected Landowner may elect to negotiate a fair settlement with ITC Midwest for the Landowner to undertake the responsibility for repair, relocation, reconfiguration, or replacement of damaged Tile. In the event the Landowner chooses to undertake the responsibility for repair, relocation, reconfiguration, or replacement of the damaged Tile, ITC Midwest will have no further liability for the identified damaged Tile.

The following standards and policies apply to the Tile repairs completed by ITC Midwest:

1. Tiles will be repaired with materials of the same or reasonably comparable quality as that which were damaged.
2. If water is flowing through a damaged Tile, temporary repairs will be promptly installed and maintained until such time that permanent repairs can be made.
3. Before completing permanent Tile repairs in an area where a Landowner or ITC Midwest has identified a potential concern arising from Project construction, Tiles will be examined within the work area to check for Tile that might have been damaged by construction equipment. If Tiles are found to be damaged, they will be repaired so they operate as well after construction as before construction began.
4. ITC Midwest will make efforts to complete permanent Tile repairs within a reasonable timeframe after Final Clean-up, taking into account weather and soil conditions.
5. Following completion of Final Clean-up and damage settlement, ITC Midwest will be responsible for correcting and repairing Tile breaks, or other damages to Tile systems that are discovered on the Right-of-Way to the extent that such breaks are the result of Project construction. These damages are usually discovered after the first significant rain event. ITC Midwest will provide the Landowner with contact information should Tile damage issues be identified after Final Clean-up. ITC Midwest will not be responsible for Tile repairs performed by the Landowner.

ITC Midwest will be responsible for installing additional Tile or other drainage measures, including adding Topsoil, as necessary to properly drain wet areas along the Right-of-Way (ROW) caused by the construction of the Project.

### **3.7 TOPSOIL SEGREGATION**

In order to protect and preserve the Topsoil during Project construction, ITC Midwest will separate the Topsoil from the other subsoil materials when all earthmoving activities, excavation, or trenching are taking place. There may be limited situations where excavated subsoil will be temporarily stored on adjacent, undisturbed Topsoil. In these situations, subsoil will be returned to the excavation with as little disturbance of the underlying Topsoil as practicable. During the excavation backfill process, the subsoil will be backfilled into the excavations first and compacted as necessary, followed by Topsoil replaced to the approximate locations from which it was removed.

### **3.8 SOIL COMPACTION/RUTTING**

Compaction will be alleviated as practicable on cropland traversed by construction equipment. ITC Midwest will work with the Landowner to alleviate compaction during suitable weather conditions in a mutually agreeable manner.

ITC Midwest will repair damage incurred due to compaction, ruts, erosion, and/or washing of soil caused by electric line construction. If, by mutual agreement, the Landowner repairs such damage, ITC Midwest will reimburse the Landowner for the reasonable cost of labor and the use of equipment to repair damage incurred due to compaction, ruts, erosion, and/or washing of soil caused by electric line construction. ITC Midwest will make such payments within a reasonable period of time following final clean up and after receiving a statement substantiating the Landowner's repair costs.

After Final Clean-up, ITC Midwest will pay for the reasonable cost of repairs to the Landowner's equipment if the equipment is damaged during repair of compaction, ruts, erosion, and/or washing of soil by materials or debris ITC Midwest left on the ROW during construction.

### **3.9 EXCESS SOIL AND ROCKS**

Excess soil and rock will be removed from the site unless otherwise requested by the Landowner. After Final Clean-up and restoration of Agricultural Lands, ITC Midwest will make good faith efforts to obtain written acknowledgement of completion of such activities from the Landowner.

### **3.10 CONSTRUCTION DEBRIS**

ITC Midwest will remove construction-related debris and material that is not an integral part of the transmission line from the Landowner's property at ITC Midwest's cost. Such material may include excess construction materials or litter generated by the construction crews.

### **3.11 PROCEDURES FOR DETERMINATION OF DAMAGES AND COMPENSATION**

ITC Midwest will maintain a procedure for processing Landowner claims for construction-related damages, including but not limited to crop damages. The procedure is intended to standardize and minimize Landowner concerns regarding the recovery of damages, to provide a degree of

certainty and predictability for Landowner and ITC Midwest, and to foster good relationships among ITC Midwest and Landowner over the long term. A copy of the procedure will be provided to Landowner during easement acquisition negotiations.

Damage claim negotiations between ITC Midwest and any affected Landowner will be voluntary in nature. ITC Midwest will offer to compensate Landowners according to the terms of ITC Midwest's damage claim policy in effect at the time the easement is executed and recorded. The compensation offered is only an offer to settle, and the offer shall not be introduced in any proceeding brought by the Landowner to establish the amount of damages ITC Midwest must pay.

### **3.12 NOXIOUS WEED CONTROL**

When requested, ITC Midwest will work with neighboring Landowners to determine adequate noxious weed control measures on lands owned by ITC Midwest for the Forks Switching Station. The intent of such noxious weed control measures is to prevent the spread of noxious weeds onto adjacent Agricultural Land. Any noxious weed control spraying will be in accordance with State of Minnesota regulations.

### **3.13 SOIL CONSERVATION PRACTICES**

Soil conservation practices such as terraces and grassed waterways that are damaged by the transmission line's construction will be restored to their pre-construction condition as near as possible. ITC Midwest will attempt to work with the Landowner to identify and document the pre-construction conditions of these features.

### **3.14 IRRIGATION**

The Proposed Route does not intersect an operational spray irrigation system. If an irrigation system is installed across or adjacent to the Proposed Route prior to Project construction, ITC Midwest will work with the Landowner to establish an acceptable amount of time the irrigation system may be out of service.



**Appendix K**  
**Vegetation Management Plan**

# **FORKS 161 kV SWITCHING STATION AND FORKS-ROST 161 kV TRANSMISSION LINE PROJECT**



**ITC Midwest LLC**

**Vegetation Management Plan**

**Docket Number  
ET6675/TL-24-232**

Prepared by:



September 2024

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## **1.0 INTRODUCTION**

ITC Midwest LLC (ITC Midwest) is applying to the Minnesota Public Utilities Commission (Commission) for a Route Permit to construct a new 161 kilovolt (kV) transmission line (the Project) from the new Forks Switching Station to the new Rost Substation in Jackson County, Minnesota. The Project will include the construction of the new Forks Switching Station southwest of the City of Lakefield, Minnesota, and a new approximately 8.5 mile long 161 kV high voltage transmission line from the new Forks Switching Station to the new Rost Substation to be permitted separately and constructed by Great River Energy, east of the City of Worthington, Minnesota. The Project is located entirely in Jackson County, Minnesota in Ewington and Rost Townships.

## **2.0 PLAN OVERVIEW**

ITC Midwest has developed this Vegetation Management Plan (VMP) for the Project to address an anticipated Route Permit condition from the Commission for the Project related to vegetation management.

The primary goal of this VMP is to construct the Project and maintain the Project right-of-way (ROW) in a manner that ensures a safe and reliable transmission line. In addition to the primary goal stated above, this VMP also addresses the following goals:

- Develop and maintain cooperative relationships with landowners along the ROW to accommodate reasonable requests and preferences related to ROW vegetation management.
- Comply with applicable requirements in federal, state, and local permits, licenses, and/or easements.
- Limit the introduction and spread of noxious weeds and invasive species (NWIS) due to the Project.

This VMP reflects vegetation management practices that are consistent with applicable North American Electric Reliability Corporation (NERC) requirements, as well as requirements set by the Commission. This VMP also incorporates, where applicable, the Minnesota Department of Commerce's Generic Vegetation Establishment and Management Plan Guidance.

## **3.0 SITE DESCRIPTION**

### **3.1 EXISTING CONDITIONS**

ITC Midwest has asked the Commission to approve a Proposed Route with a width of 1,500 feet (750 feet on either side of the proposed transmission centerline). At a minimum, the Project will have a ROW that is 100 feet wide (typically 50 feet on each side of the transmission centerline).

The Proposed Route includes open agricultural areas, scattered small, forested areas, rural residential development, and hydrologic features, including streams, wetlands, and small ponds. Surface elevations within the Proposed Route range from 1,406 to 1,489 feet above sea level. Slopes vary throughout the Proposed Route, but the terrain is predominantly flat.

## **3.2 PROJECT COMPONENTS.**

### **3.2.1 Transmission Line Right-of-Way**

Once a Route Permit is issued, ITC Midwest land agents will work directly with individual landowners to acquire the necessary easements for the Project. At a minimum, the Project will require a total ROW of 100 feet wide (typically 50 feet on each side of the transmission centerline).

### **3.2.2 Temporary Construction Areas**

Temporary construction areas can include wire stringing areas, off ROW access routes, and laydown yards. Leases or easements will be acquired for these areas, if necessary.

## **4.0 RIGHT-OF-WAY PREPARATION AND CONSTRUCTION**

### **4.1 LANDOWNER NOTIFICATION**

Landowners will be notified prior to clearing activities, as required by applicable permit conditions. Among other things, the notification letter will inform landowners:

- The ROW will be staked indicating the extent of clearing activities.
- Landowners can request to keep any of the trees and materials. Requested wood will be cut to no less than 8-foot segments. Requested whole trees, trunks, wood chips or mulch will be placed just outside of the ROW in an upland area and at a location on the Landowners' property for the materials to be hauled away by the Landowner.
- All unwanted woody materials will be removed from the landowner's property.
- Herbicides to prevent regrowth of woody vegetation may be used, the method of application, and the opportunity for them to request that no herbicides be used.

### **4.2 INITIAL RIGHT-OF-WAY CLEARING**

It is the standard practice of ITC Midwest to remove all woody vegetation within the right-of-way for the construction of new high voltage transmission lines. Such vegetation may interfere with or restrict safe construction of the transmission line. Cleared rights-of-way provide for safer working conditions and necessary access for large construction equipment including trucks, cranes, and boom lifts. A cleared ROW also minimizes conflicts for stringing operations. Vegetation will be limited to the permanent ROW, temporary ROW, danger trees off ROW, and off-ROW access.

To the extent the Project schedule allows, vegetation clearing will be conducted on firm or frozen ground to minimize rutting and soil erosion. If schedules or weather do not allow for work on firm ground, construction mats will be used as necessary to prevent rutting and erosion.

Mechanical equipment such as feller bunchers or brush cutters may be used for clearing. In areas where clearing with large equipment is not viable, clearing will be done with hand tools such as chain saws.

Vegetation within the ROW will be cut at or slightly above the ground surface depending on terrain. Any tree stumps or surface roots in managed turf grasses will be ground to slightly below grade and the hole backfilled with dirt and seeded with a similar turf grass mixture. Any stumps outside of managed turf grass areas will typically be cut or ground such that no more than two inches remain above grade depending on terrain. ITC does not typically grub stumps or roots to minimize soil impacts and erosion potential.

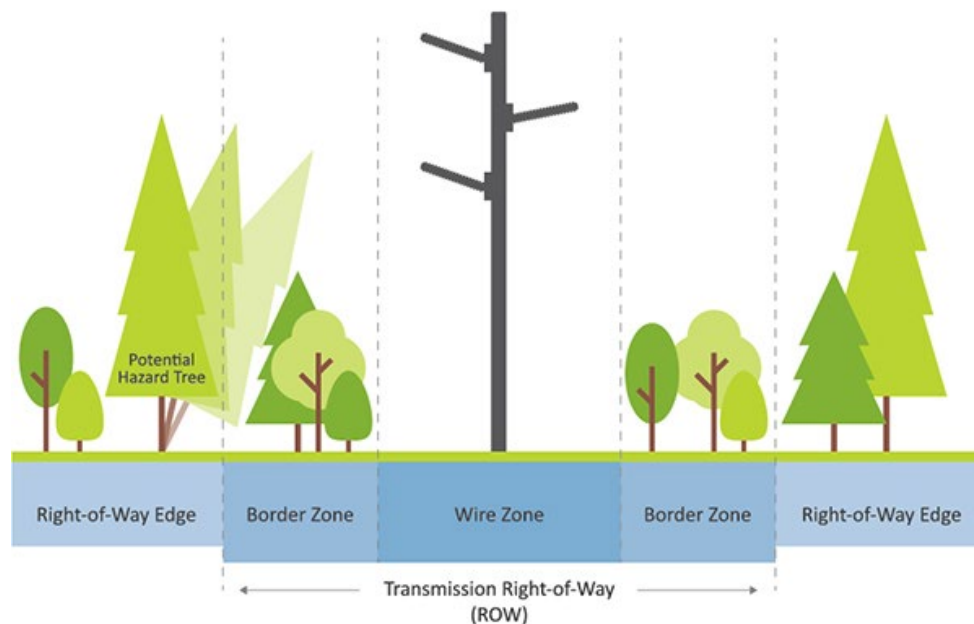
Trees, trunks and/or limbs cut on private property are typically cut to approximately 8-foot lengths unless the landowner requests longer lengths.

Trees (>6 inches diameter at breast height (dbh) or >20 feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands.

All materials a landowner has requested to keep will be stacked outside the ROW in an upland area for the Landowner to haul away at their expense. All materials a landowner does not wish to keep will be stacked inside the ROW for further processing and disposal.

Any materials a landowner does not wish to keep will be removed from their property. These unwanted materials may be placed in a composting site, or disposed of at landfill.

**Figure 4.2-1 – Standard Vegetation Management Practices**



### 4.3 BEST MANAGEMENT PRACTICES

All work will comply with the Stormwater Pollution Prevention Plan (SWPPP) developed to comply with the Minnesota Pollution Control Agency's (MPCA) Construction Stormwater permit. The SWPPP will define best management practices (BMPs) for erosion and sedimentation prevention and mitigation. Due to entanglement issues with small animals, use of erosion control blanket

shall be limited to 'bionetting' or 'natural netting' types and specifically not products containing plastic mesh netting or other plastic components.

## **5.0 HERBICIDES**

Landowners within the Project ROW will be notified at least 14 days in advance if herbicides will be used on the ROW. The notice will indicate what herbicides will be used and the methods of application (e.g., broadcast, selective spot treatment, or basal treatment).

Herbicides may be used during vegetation removal or maintenance to control the re-sprout of stumps of incompatible species or to control invasive or noxious weed species. If a landowner prohibits their use, herbicides will not be used on that landowner's property. ITC Midwest will consult with agencies regarding the use of herbicides in areas of their permit authority. Herbicides will not be used within 75 feet of the vegetative buffer zone of waterbody crossings, unless approved prior to use. Herbicides will be used in accordance with the manufacturer specifications and all applicable federal and state regulations. Herbicides used in or near wetlands and waterbodies must be designated for use in wet areas as identified by manufacturer specifications and allowed by federal or state regulations.

## **6.0 NOXIOUS WEEDS AND INVASIVE SPECIES CONTROL**

During all phases of Project activities including clearing, construction, operation and maintenance, the Project will minimize the introduction and spread of noxious weeds and invasive species (NWIS) along the ROW by implementing BMPs that discourage the spread of identified species, and routine cleaning of equipment to remove dirt and plant debris. The goal is to prevent new infestations on the ROW as a result of construction activities. It is important to note that there may be NWIS already existing on private parcels along the ROW. While this does not preclude the Project from responsibility for managing the spread of invasive species, this ability may be limited by pre-existing conditions.

ITC Midwest has identified the following mitigation measures to be implemented that should prevent the introduction of NWIS on lands disturbed by construction activities. The methods discussed in this section relate only to construction and restoration activities and not vegetation maintenance activities.

- To prevent the introduction and spread of NWIS into the project area from offsite locations, equipment will be cleaned prior to arrival onsite. Visible dirt must be removed from all equipment using high pressure compressed air blowers or brushing.
- The contractor(s) must maintain record of cleaning for each piece of equipment used onsite. This information will be available upon request.
- Non-compliance with equipment cleaning requirements may warrant a stop work order to be issued. Construction activity could then recommence only after project equipment has been removed from the site, and adequately cleaned.
- Only weed-free materials (e.g., straw bales, bio-rolls, mulch) will be used in erosion control and only weed-free seed will be used during revegetation.

- Equipment and clothing will be inspected for invasive materials.
- Collected invasive materials will be secured and disposed of at an offsite location to avoid dispersal.
- Minimally disturbed areas will be allowed to restore naturally with landowner approval.
- Major infestation areas may be treated with multiple methods, such as the recommended herbicides (if approved by the landowner) and/or by mechanical methods such as mowing or burning. The contractor will be required to obtain the necessary permits and/or certifications for the use of applicable herbicides.

At this time, no prairies or Minnesota Department of Natural Resources (MnDNR) lands are expected to be crossed. In the event any prairie crossings are identified, ITC Midwest will work with the MnDNR to ensure that any mitigation or minimization measures are developed before construction in that area.

## **7.0 REVEGETATION AND RESTORATION**

Once construction ceases, the ROW will be inspected to identify areas impacted by Project activities. Typical impacts might include rutting, soil compaction, soil exposure, and damage to native vegetation, all to varying degrees. Areas of minimal disturbance will be allowed to regenerate naturally with landowner approval. Such areas may include those where erosion is limited to dispersed areas and surrounding existing vegetation provides control of sediments; existing vegetation is matted down due to vehicle traffic; or areas where drilling spoils are raked into existing vegetation. These areas will be identified at the time of restoration.

All conditions as specified in local, state, and federal permits and private landowner agreements for final restoration and cleanup will be met. Revegetation and restoration of disturbed areas associated with Project activities are intended to protect wetland and water resources from issues associated with sedimentation, to protect wildlife habitat, and reduce the movement of NWIS species within the ROW.

Restoration activities may, as needed, include:

- Collection and disposal of all work-related debris and trash.
- Discing or grading to repair rutting.
- Regrading areas disturbed by construction or clearing to reflect pre-construction topography.
- Applying temporary cover and/or temporary seed to minimize erosion potential to the extent practicable.
- Permanent seeding of non-agricultural areas disturbed by transmission line structures or other facilities to prevent runoff.
- Unless timber, slash or chips have been requested by the landowner, all residual vegetation materials will be removed and properly disposed of off-site.



- Trees (>4 inches diameter at breast height (dbh) or >20 feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands.
- Brush within a wetland may be cut with a brush mower or similar device as long as material from outside the wetland is not brought into the wetland. If sufficient brush is present such that debris will exceed 4 inches, sufficient brush will be hauled out for processing in an upland area.
- Wood chips will not be placed in wetlands, and wood chips placed in uplands will not exceed 1 inch in depth.
- Within wetlands, all construction matting will be removed and vegetation will be allowed to regenerate naturally.

### **7.1 TEMPORARY REVEGETATION AND RESTORATION**

Temporary revegetation will be implemented to quickly establish vegetative cover with the primary purposes of minimizing soil erosion and reducing the potential for the establishment of noxious weeds. The temporary seed mix is considered a cover crop, is made up of annual grasses, has rapid germination, and provides a quick ground cover. This seed mix is not intended to provide multi-year cover. Unless specifically requested by landowners or land management agencies, ITC Midwest does not plan to establish temporary vegetation on cultivated land or in areas of open water.

Temporary seeding of cover crop will occur in locations where unfrozen, bare soil surface conditions and ruts will not be permanently restored within 14 days of completion of active work (seven days for an area draining to a discharge point on the Project that is within one mile of a special or impaired water and flows to that special or impaired water). Temporary restoration activities will include the repair of rutted surfaces and an even broadcast-seeding of the temporary cover-crop seed mix at a rate of 80 lbs./acre. No mulch is to be applied in wetland areas.

Temporary vegetation must be placed in accordance with the SWPPP or in consultation with ITC Midwest. Temporary vegetation establishment may be expected to be successful between April 1 and September 30. Establishment of temporary vegetation is unlikely to be successful outside of this time window. Temporary use of mulch to stabilize soils should be applied outside of the April 1 through September 30 window.

Straw or wood chip mulch (less than or equal to 1 inch depth) may be used to help stabilize areas or bare soils in uplands only during the establishment of temporary vegetation or during the period between October 1 and April 1 (winter). The contractor will apply mulch during the establishment of temporary vegetation as requested by the landowner, specified in licenses or permits, or as requested by ITC Midwest.

Mulch, free of soil material and derived from onsite sources, may be used to protect areas where bare soils have been exposed due to tree clearing and construction activities. In winter situations, wood chips or other appropriate BMPs such as erosion control blankets may be used to provide protection for bare soils exposed due to construction activities where out-of-season seeding is not applicable.

Mulch derived from onsite locations may be spread up to 1 inch deep in upland areas to provide ground protection along access paths. Upon abandonment of access routes, mulch is to be spread evenly to a depth no greater than one inch. Mulch is not to be used within wetlands. Straw mulch used on the Project sites will consist of state certified weed-free material. Straw mulch may be used outside of the seeding window as a temporary erosion control measure, followed by temporary or permanent seeding at the earliest possible time after the April 1 seeding date. The contractor will be responsible for locating and documenting the source of certified weed-free mulch. Copies of the applicable documentation must be made available upon request to the applicable agencies. Straw mulch will be applied as previously described.

## **7.2 PERMANENT REVEGETATION AND RESTORATION**

Appropriate vegetative cover of the ROW will be required along the entire length of the ROW. Since this project does not require major grading activities, in many cases natural revegetation by early successional native species following tree clearing is expected to occur. In areas where native species voluntarily revegetate the ROW, active restoration may not be required. Monthly monitoring during the first year, and adaptive management will be required to ensure that NWIS are controlled, that desirable native plant species become the dominant vegetation communities in natural areas, and that bare soils are quickly stabilized to reduce erosion. In areas of minimal disturbance, vegetation will be allowed to regenerate naturally.

Where standing water is not present, and where surrounding vegetation is dominated by abundant native species, the seeding of bare soils, using the temporary cover-crop seed mix may be sufficient for cover while native species revegetate the area. ITC Midwest may consult with the appropriate agencies during the construction period to assess application of techniques in specific locations. Permanent seed mixes will include native seed varieties commonly found and/or available from local seed distributors. The permanent seed mixes are designed to augment the natural colonization of the ROW by local, native seed sources.

On private agricultural lands, ITC Midwest's land agents will work with landowners to develop appropriate measures for reseeding of disturbed lands. Unless requested by the landowner, a native area vegetation seed mix will be used.

## **8.0 SEEDING METHODS AND TIMING**

Revegetation and restoration of disturbed areas associated with construction activities are intended to protect wetland and water resources from issues associated with sedimentation, to protect wildlife habitat, and reduce the movement of NWIS species within the ROW. Oversight for the implementation of revegetation and restoration procedures will be provided by ITC Midwest.

Seed used will be purchased on a Pure Live Seed (PLS) basis for seeding revegetation areas. Seed tags will identify:

- Purity;
- Germination;
- Date tested;
- Total weight and PLS weight;
- Weed seed content; and
- Seed supplier's name and business information.

Seed will be used within 12 months of testing as required by applicable state rules and regulations. The seed tags on the seed sacks will also certify that the seed is “noxious weed free.” Seed rates used on the project will be based on PLS rate, not actual weight. The species components of individual mixes are subject to availability at the time of purchase. Grass species may be substituted with alternative native or non-invasive species that are included in Natural Resource Conservation Service guidelines and subject to approval by ITC Midwest.

Seed tags must be collected by the contractor and provided to ITC Midwest during seeding activities. The tags will be reviewed by ITC Midwest or its agent prior to use to ensure that the seed mix complies with specifications described herein. Legume seed (where specified) will be treated with inoculants specific to the species and in accordance with the manufacturer’s recommended rate, appropriate for the seeding method (broadcast, drill, or hydroseeding).

Seedbed preparation and seeding are to occur immediately following completion of construction activities and site cleanup in any given location. Where applicable, soil will be tilled to a minimum depth of four inches with a disc, field cultivator, or chisel plow to prepare the seedbed, breaking up large clumps and firming the soil surface. Prior to seeding, prepared beds should be sufficiently soft to allow for seed penetration and mulch anchoring, while sufficiently firm to provide surface soil stability. Seeding and mulching should occur parallel to ground contours as practicable.

In order to minimize ground disturbance along the entire ROW, forested areas will be cleared, but roots and stumps will be left in place where feasible and practicable. Within areas of cleared forest, it may not be practical to access large areas of ground with seeding and seedbed preparation equipment. In these areas, smaller vehicles may be required to perform tasks such as smoothing ruts, preparing seedbeds with small rakes, and surface packing after seeding. The contractor will work with ITC Midwest to develop strategies to work around stumps. Fertilizers and other soil amendments are not recommended and will only be applied as requested by and agreed to with landowners.

## **8.1 SEEDING METHODS**

Drilled seed will be sown at a depth of 0.25 inches. Seeding equipment will be able to accommodate and uniformly distribute different sizes of seed at the required depth. Seeding mechanisms will be able to evenly distribute different seed types at the rates specified. Seedbed soil is to be suitably firmed immediately following seed drilling. Within cleared areas, it is assumed that seed drilling will be limited by the presence of stumps and roots left in place to retain the soil surface.

Broadcast seeding will occur as specified in the seed mixes. Seed is to be uniformly distributed by a mechanical, hand-operated seeder, or in small seeding areas, by hand. Following seeding, the surface is to be raked with a cultipacker, harrow, or hand rake. The bed is to be firmed as appropriate to site conditions.

Hydroseeding will occur as specified in the seed mixes. Seed will be applied in a broadcast, hydromulch slurry. The hydromulch seed mix will allow the contractor to see where application has taken place, ensuring uniform coverage of the seeding area. The hydroseeder must provide for continuous agitation of slurry and provide for a uniform flow of slurry. Hydroseed slurry is not to be held in the tank for more than one hour prior to application.

## 8.2 SEED MIXES

ITC Midwest will strive to use seed mixes which are native to Minnesota. Seed mixes are based on regionally appropriate state seed mixes that are recommended by the Minnesota Board of Soil and Water Resources (BWSR) and the Minnesota Department of Transportation (MnDOT). The mixes in Table 1 are reflective of the Project location, with road ROWs for the entirety of the route. ITC Midwest will work with landowners to identify the preferred seed mixes to be used on exposed soils on their property.

<b>Seeding Area</b>	<b>Seed Mix Name (State Seed Code)</b>	<b>Purpose</b>	<b>Rate (Pure Live Seed ["PLS"])</b>
General	Cover Crop: Winter Wheat (WW) or Oats (O)	Short term stabilization for spring and summer (O) and fall (WW)	100 lbs/ac.
Small areas (less than one acre)	Patch Mix (PM)	Reseeding small areas (<1acre) due to disturbance, maintenance, utility work, etc. Also for 2-5 year soil stabilization.	30 lbs/ac.
Private turf	Residential Turfgrass (RT)	Boulevards and other urban roadsides where low-maintenance and salt-tolerant turfgrass is needed.	200 lbs/ac.
Mesic General Roadside	Mesic Inslope (MI)	Inslopes within 15 feet of shoulder and medians ≤55 feet wide; roads with <30,000 cars per day	65 lbs/ac.
Sandy General Roadside	Sandy Inslope (SI)	Inslopes within 15 feet of shoulder and medians ≤55 feet wide; areas with sandy soils.	65 lbs/ac.
Wet Roadside Ditches	Wet Ditch (WD)	Wet ditches and some stormwater plantings; sites with wet soils mowed once per year or less. Meets pollinator habitat requirements.	20 lbs/ac.
Upland Roadside Native Vegetation	Southern Shortgrass Roadside (SSR)	Inslopes and medians when native vegetation is required; sites with dry soils mowed twice per year or less. Meets pollinator habitat requirements.	26 lbs/ac.
Mesic Roadside Native Vegetation	Southern Tallgrass Roadside (STR)	Backslopes and dry ditch bottoms; sites with moderate moisture mowed once per year or less. Meets pollinator habitat requirements.	26 lbs/ac.*

## 8.3 EROSION CONTROL

State certified weed-free straw mulch will be applied to disturbed, non-cultivated upland areas if requested by landowners or land managers. The contractor will be responsible for acquiring certified weed-free straw mulch from approved sources and copies of applicable documentation

must be provided to ITC Midwest. Mulch will be required on disturbed, exposed soils on all slopes greater than five percent, and on dry, sandy soils prone to erosion by wind or rain.

Straw mulch will be applied at a rate of two tons per acre in upland areas unless otherwise specified in permit conditions. Mulch will be uniformly distributed by mechanical blower or by hand in areas where vehicular access is limited. Mulch stalks are to be a minimum of eight inches long in order to facilitate adequate anchoring. Mulch will be crimped to a depth of two to three inches using a mulch anchoring device where accessible. In areas where stumps and slash limit access by vehicles, mulch may be applied by hand at the specified rate and anchored in place by a liquid tackifier approved by ITC Midwest.

#### **8.4 TIMING**

Seeding periods for application of the native area vegetation seed mix and the wet meadow seed mix are limited to April 1 to June 30, during spring, or when soil temperatures have fallen below 55 degrees Fahrenheit in the fall. Outside of these time windows, temporary seed mixes, applied according to temporary cover-crop seed mix specifications are to be used. Prior to installation of native seed mixes, the seedbed should be mowed and prepared for final seeding.

Seeding of the ROW is to occur within seven days of final cleanup/grading activities during the growing season (April-September). Where seeding is not possible within 48 hours, temporary stabilization using erosion control matting or mulch is required. Dormant seeding may be used after soil temperatures have fallen below 55 degrees Fahrenheit. Lower temperatures prevent seed from germinating. Dormant seeding will only be allowed using seed drills and is not permitted when soil is frozen or when snow is present. If dormant seeding is performed, temporary erosion control measures will be installed within seven days of seeding. Erosion control measures will consist of anchored straw mulch at a rate of two tons per acre, anchored hydromulch at a rate of two tons per acre, or erosion control blankets.

#### **9.0 MONITORING**

ITC Midwest will monitor and control NWIS within the ROW through the construction of the Project. During Project construction, ITC Midwest will inspect and provide information regarding infestations of NWIS along the ROW to the appropriate agencies. ITC Midwest will meet easement and lease conditions and obligations and will continue to work with landowners and the appropriate agencies to achieve standards set forth in easement or lease agreements during construction and subsequent maintenance activities.

As part of the construction of the Project and the related restoration and revegetation activities, ITC Midwest will monitor areas where seeding and erosion control measures have been implemented and will follow-up with reseeding measures where vegetative cover by the specified seed mix, or revegetation by the local, native seed source is inadequate to provide long term stability and sustainable native plant communities.

## 10.0 OPERATIONS AND MAINTENANCE

### 10.1 ROUTINE INSPECTIONS

ITC Midwest will conduct aerial and/or ground visual inspections of the ROW to ensure a safe and reliable corridor and to ensure access for maintenance activities or emergencies. Maintenance work will be based on the findings of those inspections.

### 10.2 ROUTINE MAINTENANCE

ITC Midwest will periodically clear vegetation from the existing ROW to maintain a safe and apparent corridor, and to allow access for maintenance activities or emergencies. Clearing typically includes brushing equipment traveling down the ROW, which may consist of tracked or rubber-tired equipment to cut brush and trees, hand-held saws or other manual methods. Small cuttings will be left in place, non-merchantable timber or slash will be disposed of where it originates, hauled off-site, or chipped and evenly spread on the ROW.

Project-specific maintenance techniques and mitigation measures include:

- If the surface is unstable such that rutting, soil compaction, or soil mixing may occur, low ground-pressure equipment will be used or maintenance equipment will be operated from weed-free mats or temporary timber corduroy that will be removed upon completion of the work.
- Vegetation management requirements stipulated in any MnDNR, MnDOT, or local governmental unit licenses or permits will be followed.
- All extra work areas (such as staging areas and additional spoil storage areas) will be located outside of wetland boundaries, where topographic conditions permit. If topographic conditions do not permit, an alternate location or matting will be used to minimize impacts.

Due to the typically unstable nature of soils in wetlands, and to preserve wetland hydrology and function, special practices are necessary for some operation and maintenance activities as follows:

- If the surface is unstable such that rutting, soil compaction, or soil mixing may occur, low ground-pressure equipment will be used or maintenance equipment will be operated from weed-free mats or temporary timber corduroy that will be removed upon completion of the work.
- Wetlands generally revegetate naturally. If no standing water is present, temporary cover crop as specified may be planted at a rate of 80 pounds per acre. No fertilizer or lime will be applied in wetlands.

### 10.3 EMERGENCIES

It may be necessary for ITC Midwest to cut, trim or remove vegetations due to damage caused by weather events or accidents. Such work is typically done to facilitate restoring services on the line. Staff will attempt to notify the landowner prior to entering the property.