



# **Montana-Dakota Utilities Co. 230kV Transmission Line – Morton County Project**

## ***As-Built Inspection Report***

***Docket Number: PU-21-151***

Prepared for North Dakota Public Service Commission

May 2023

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As-Built Inspection Report  
Montana-Dakota Utilities Co.

# As-Built Inspection Report

May 2023

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Appendix A Photo Log and Observation Maps

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# 1 Executive Summary

The North Dakota Public Service Commission (PSC) retained Barr Engineering Co. (Barr) to complete site inspections for the construction of the Montana-Dakota Utilities Co. 230kV Transmission Line project in Morton County, North Dakota, constructed by the Montana-Dakota Utilities Company (MDU). The purpose of the inspections is to ensure the project is constructed in compliance with siting laws and rules and the applicable PSC Orders for the project.

A pre-construction conference call was held for the Project on 14 January 2022. Barr attended the call and reviewed project documents to become familiar with the Project and PSC Orders for the Project. Construction involving soil disturbance began 21 June 2022. A Topsoil Removal Inspection Report was previously submitted to the PSC.

As-built inspections were conducted on 12 May 2022. The power line route was inspected, and reclamation and fertilization were observed to be done according to Natural Resources Conservation Service (NRCS) recommendations. The right of way was clear of waste, and disturbed ground around new power poles appeared to be graded and seeded to match previous conditions as close as was practicable. Overall, project construction appears to be in compliance with the applicable siting laws, rules, and PSC orders.

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## 2 Background and Scope

### 2.1 Introduction

The Montana-Dakota Utilities Co 230kV Transmission line is a 230-kilovolt transmission line originating at the R.M. Heskett plant located near Mandan, North Dakota and ending at the existing substation approximately one mile north of the R.M. Heskett plant.

The transmission line for the project is designed to carry 230-kilovolt electrical power to the existing substation. The Project is under the jurisdiction of the North Dakota PSC, which issued its Findings of Fact, Conclusions of Law, and Order in Case No. PU-21-150 on 28 July 2021, granting Certificates of Corridor Compatibility No. 223, and Route Permit No. 233 for the Project.

### 2.2 Regulatory Purpose and Need

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) charges the Public Service Commission with determining that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of citizens of North Dakota. Inspections during construction ensure that such projects are built in compliance with the siting laws (North Dakota Century Code Chapter 49-22) and rules (North Dakota Administrative Code Article 69-06) and the applicable Commission Orders.

### 2.3 Scope of Work

The North Dakota Public Service Commission retained Barr Engineering Co. to perform as-built inspections of the Project. Barr's scope of work was to complete and document an on-site as-built inspection upon completion of the construction phase of the project to verify the project was constructed in compliance with the siting laws, rules, and applicable Commission Orders and to verify the topsoil was replaced and covered as required in compliance with the Commission's Order. This report contains site visit observations and a summary of findings and issues that should be addressed for the Project to be considered complete and in full compliance.

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## 3 Findings of Site Inspection

### 3.1 Methods

Andrew Unbehaun, Project Manager/Field Inspector for Barr, visited the Project site on 12 May 2023 to conduct as-built inspections. Daniel Albrecht, project manager for MDU, accompanied Barr staff on the visit. Mr. Albrecht oversaw construction and reclamation activities during construction of the project.

The site was visually inspected by driving to access points identified by Mr. Albrecht, then walking the portion of the Project right-of-way (ROW) where construction activities had been conducted. Contractor equipment had been removed from the site prior to the site inspection. Completed restoration was observed. Digital photographs were taken at observation points at regular intervals along the pipeline route. Geographic coordinates were recorded at observation points using a handheld Global Navigation Satellite System (GLONASS) device (iPhone 11; <5m accuracy; WGS84 datum).

### 3.2 On-Site Inspection Observations

Mr. Unbehaun met with Mr. Albrecht at the R.M Heskett station parking lot. Mr. Albrecht and Mr. Unbehaun then proceeded to the Project construction area. The topsoil replacement appeared to be in compliance with NRCS guidelines (See Appendix A).

The contractors appear to have done a satisfactory job replacing subsoil and topsoil, reclaiming, and constructing the project to meet all siting laws, rules, and Commission Orders. There was one location at which a hole had been started for a power pole before an underground line was discovered at which point that hole was filled and topsoil replaced. This area had been reseeded during construction and reclamation according to Mr. Albrecht, however the reseeded area was not growing as expected. Mr. Albrecht stated he would have the area cleared and reseeded. Work areas visited during the inspection were free of debris and waste, and fences and gates had been repaired or replaced.

## 4 Issues to Resolve and Recommendations

As-built inspection of the North System Pipeline project verified that the project is constructed in compliance with the siting laws, rules, and applicable Commission Orders. There is one issue with seeding in the filled hole that MDU stated they would correct. Barr makes the following recommendations for post construction monitoring and observance:

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Issues	Recommendations
<b>Seeding</b>	Clear and re-seed area around reclaimed hole that was filled
<b>Monitor Topsoil</b>	Routinely monitor areas around new power poles for soil settling and noxious weed growth.
<b>Additional potential issues</b>	Refer to project Storm Water Pollution Prevention Plan (SWPPP) for additional postconstruction recommendations

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## 5 Signatures

The services performed by Barr staff for this project have been conducted in a manner consistent with the technical skill and degree of care exercised by professionals currently practicing in this discipline under similar time and budget constraints. Findings and recommendations represent our professional judgement and are based on available information and accepted practices. No warranty is implied or expressed beyond this.



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Andrew Unbehau, Project Manager

05/23/2023

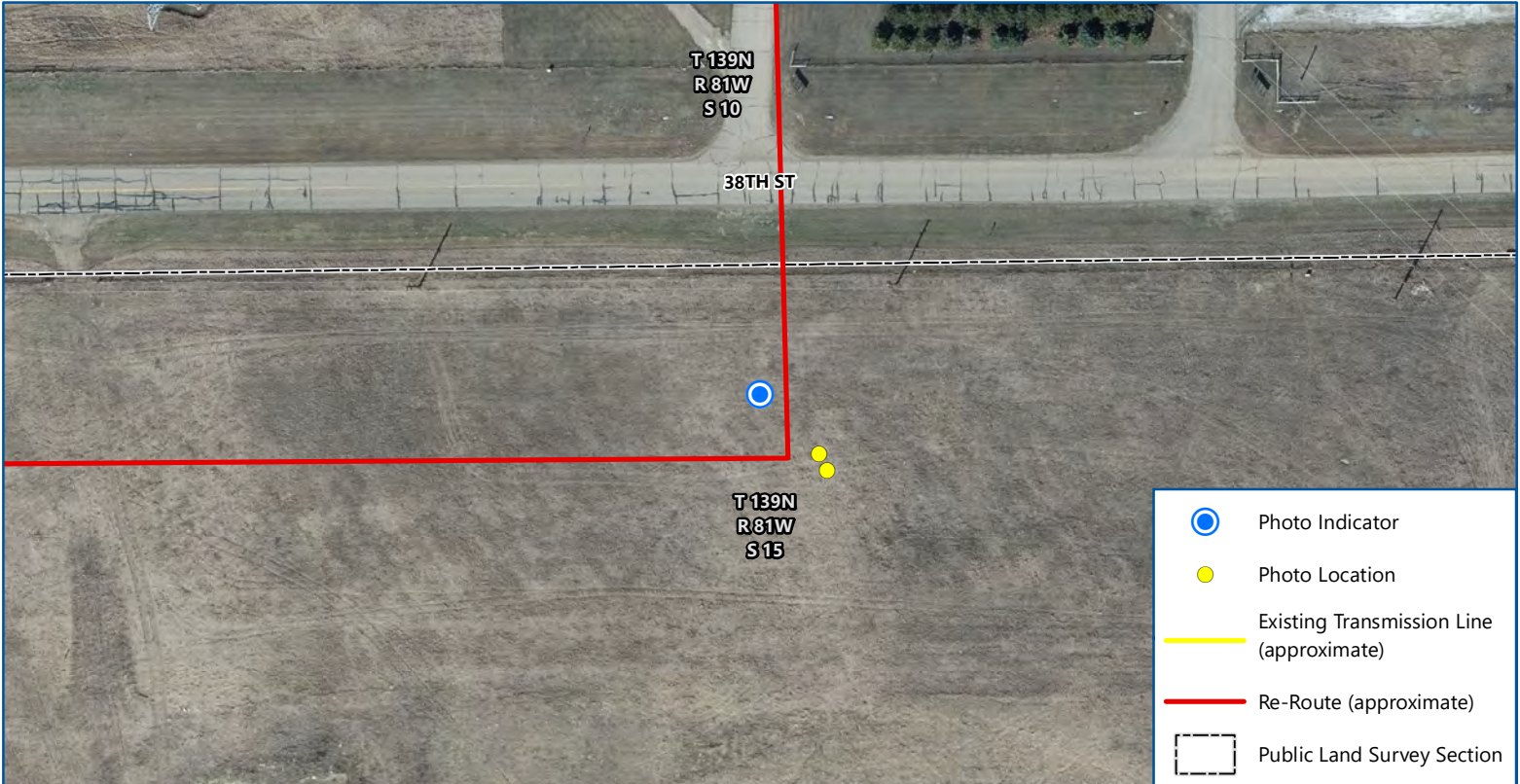
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Date

## Appendices

## **Appendix A**

### **Photo Log and Observation Maps**



Map 1 of 15

**MDU 230KV  
TRANSMISSION LINE**

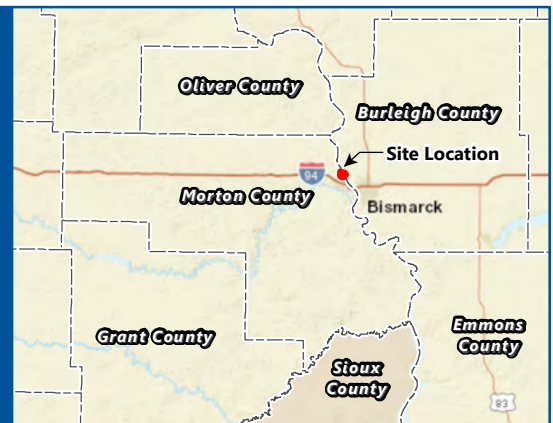
North Dakota Public Service Commission  
Mountrail County, North Dakota

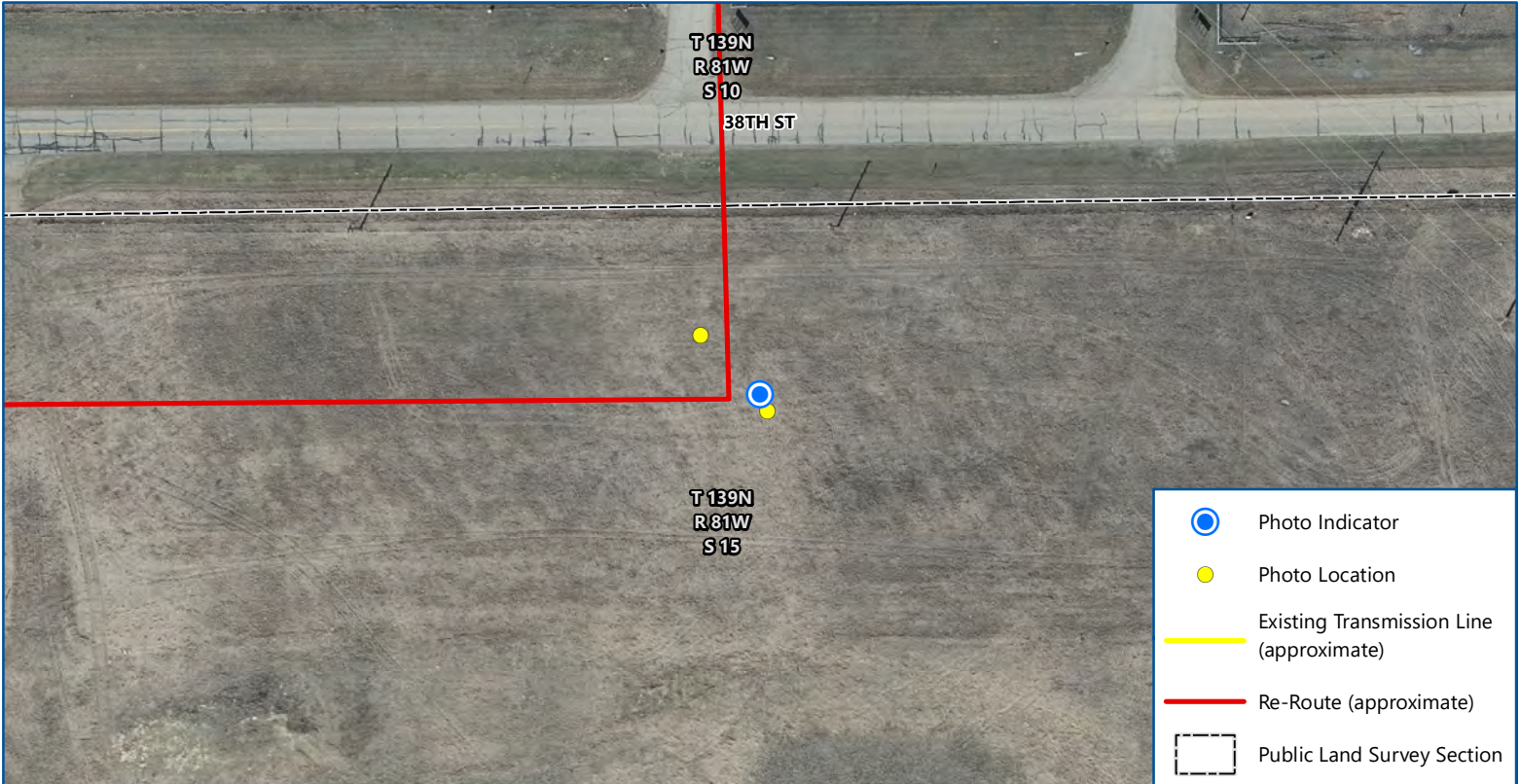







Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: East  
Comment: Tower 1. Topsoil replaced,  
regrowth beginning.

Latitude: -100.883951  
Longitude: 46.86457  
Coordinates are in the WGS84 datum.





-  Photo Indicator
-  Photo Location
-  Existing Transmission Line (approximate)
-  Re-Route (approximate)
-  Public Land Survey Section

Map 2 of 15

**MDU 230KV  
TRANSMISSION LINE**

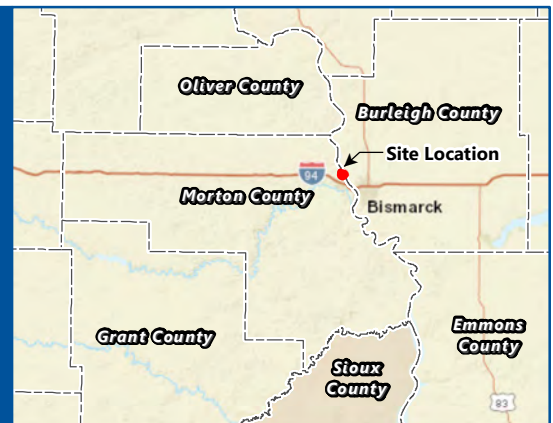
North Dakota Public Service Commission  
Mountrail County, North Dakota

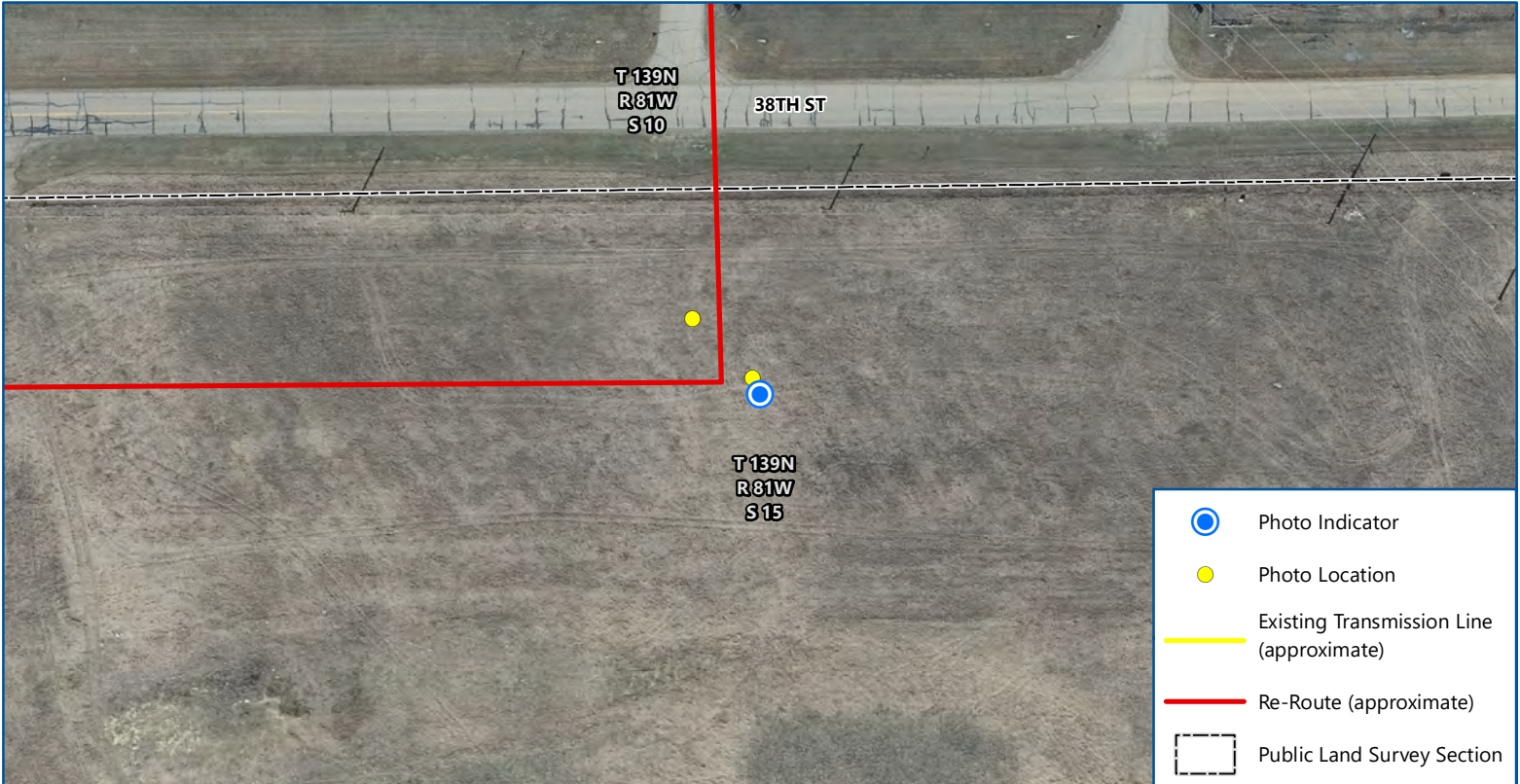


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: East  
Comment: Tower 2. Topsoil replaced,  
regrowth beginning

Latitude: -100.883824  
Longitude: 46.864484  
Coordinates are in the WGS84 datum.





Map 3 of 15

**MDU 230KV  
TRANSMISSION LINE**

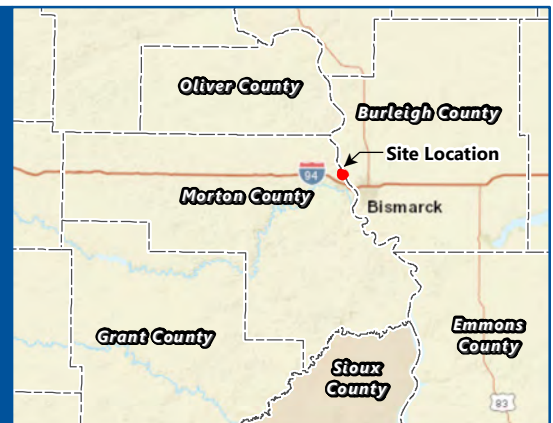
North Dakota Public Service Commission  
Mountrail County, North Dakota

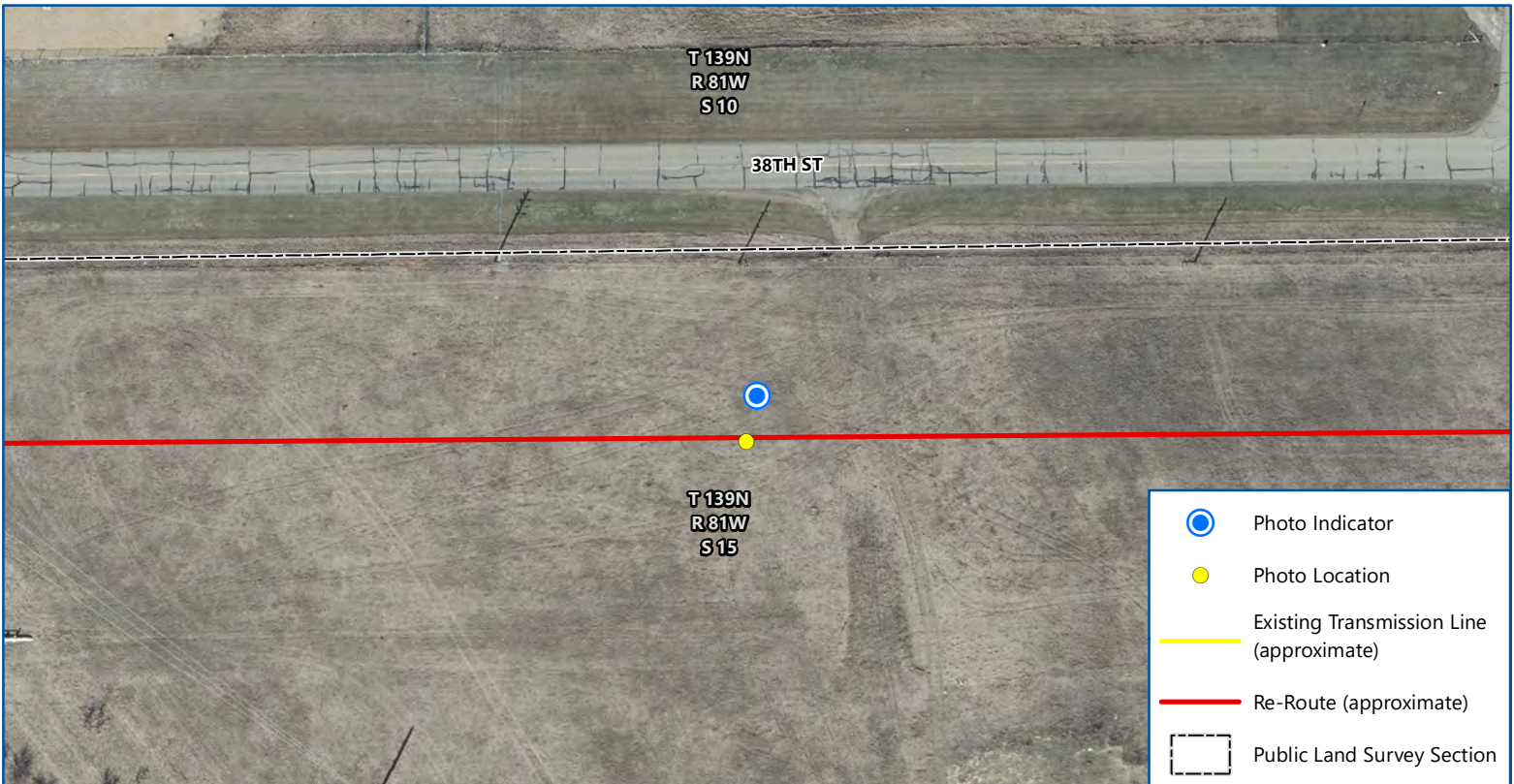







Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: East  
Comment: Tower 3. Topsoil replaced,  
regrowth beginning

Latitude: -100.883807  
Longitude: 46.864459  
Coordinates are in the WGS84 datum.





-  Photo Indicator
-  Photo Location
-  Existing Transmission Line (approximate)
-  Re-Route (approximate)
-  Public Land Survey Section

Map 4 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota

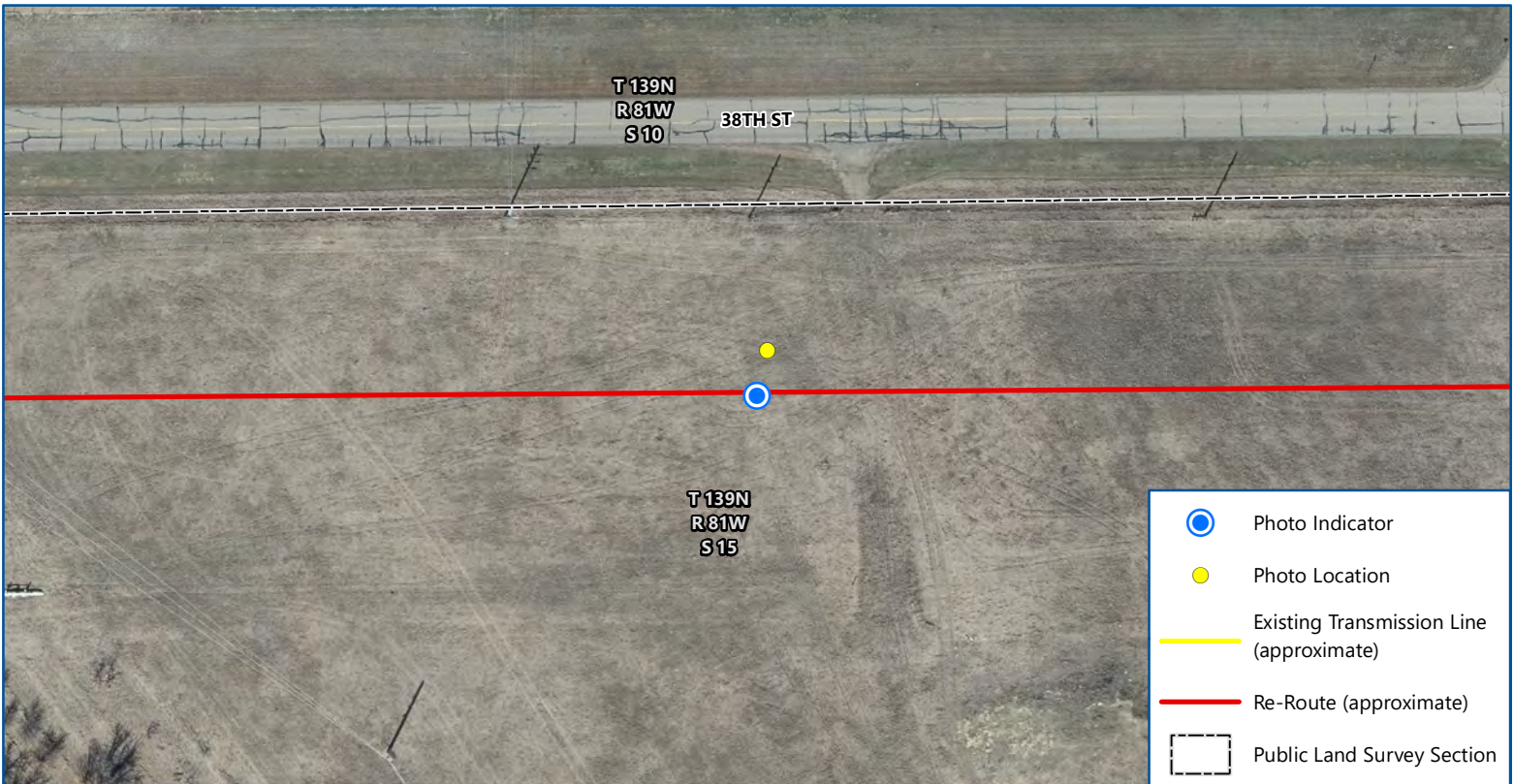


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: West  
Comment: Tower 4. Topsoil replaced,  
regrowth beginning

Latitude: -100.885618  
Longitude: 46.864523  
Coordinates are in the WGS84 datum.





Map 5 of 15

**MDU 230KV  
TRANSMISSION LINE**

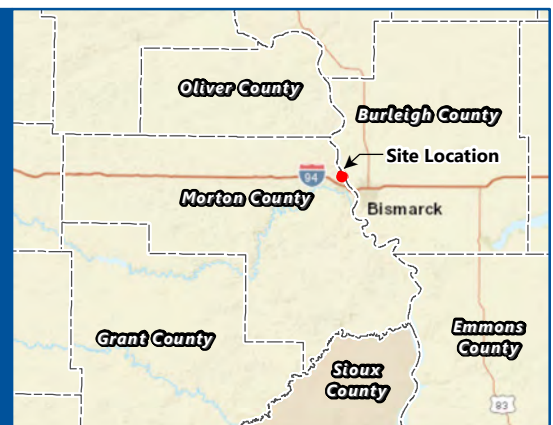
North Dakota Public Service Commission  
Mountrail County, North Dakota

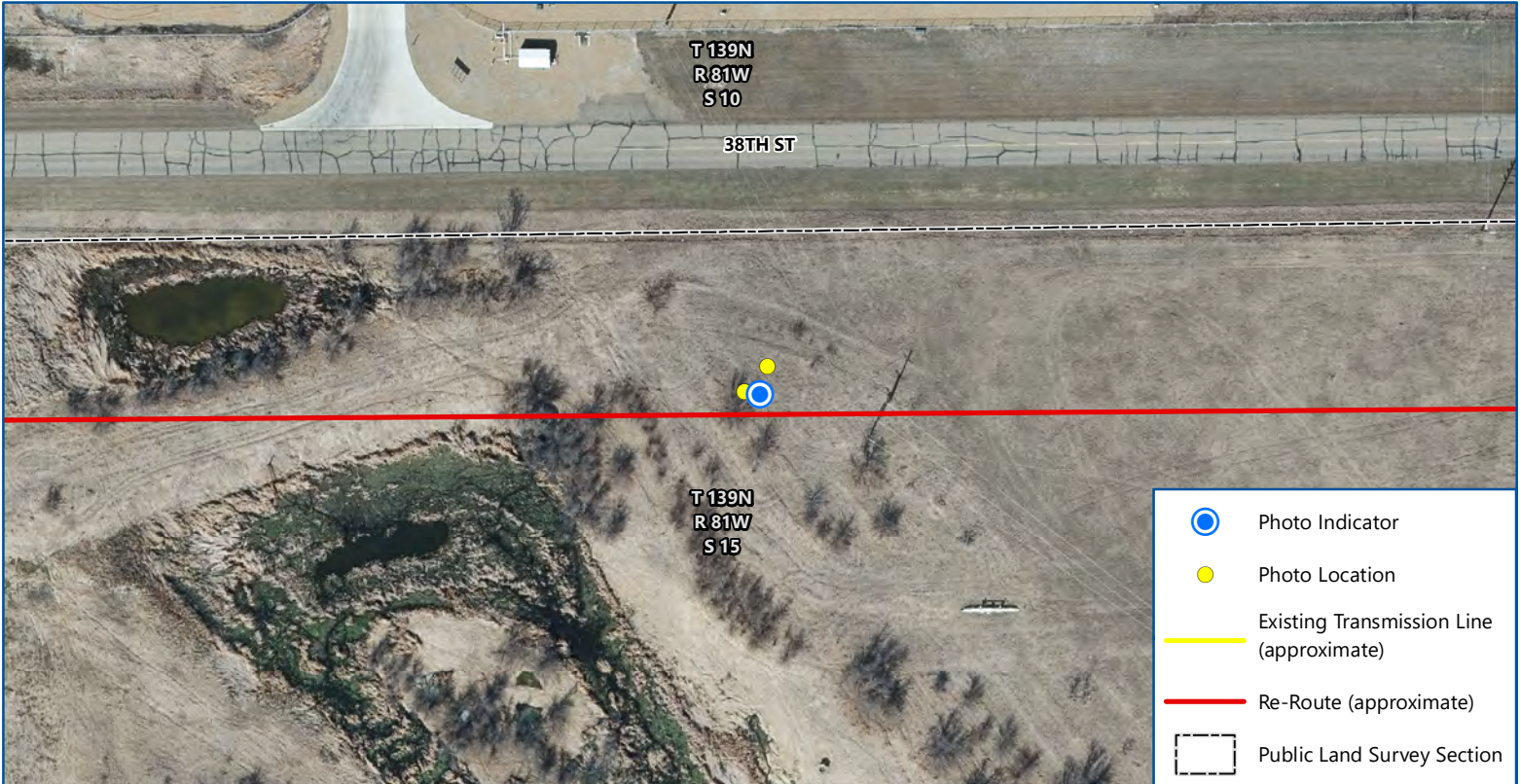


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: Northeast  
Comment: Tower 5. Topsoil replaced,  
regrowth beginning

Latitude: -100.88564  
Longitude: 46.864456  
Coordinates are in the WGS84 datum.





Map 6 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota



Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023

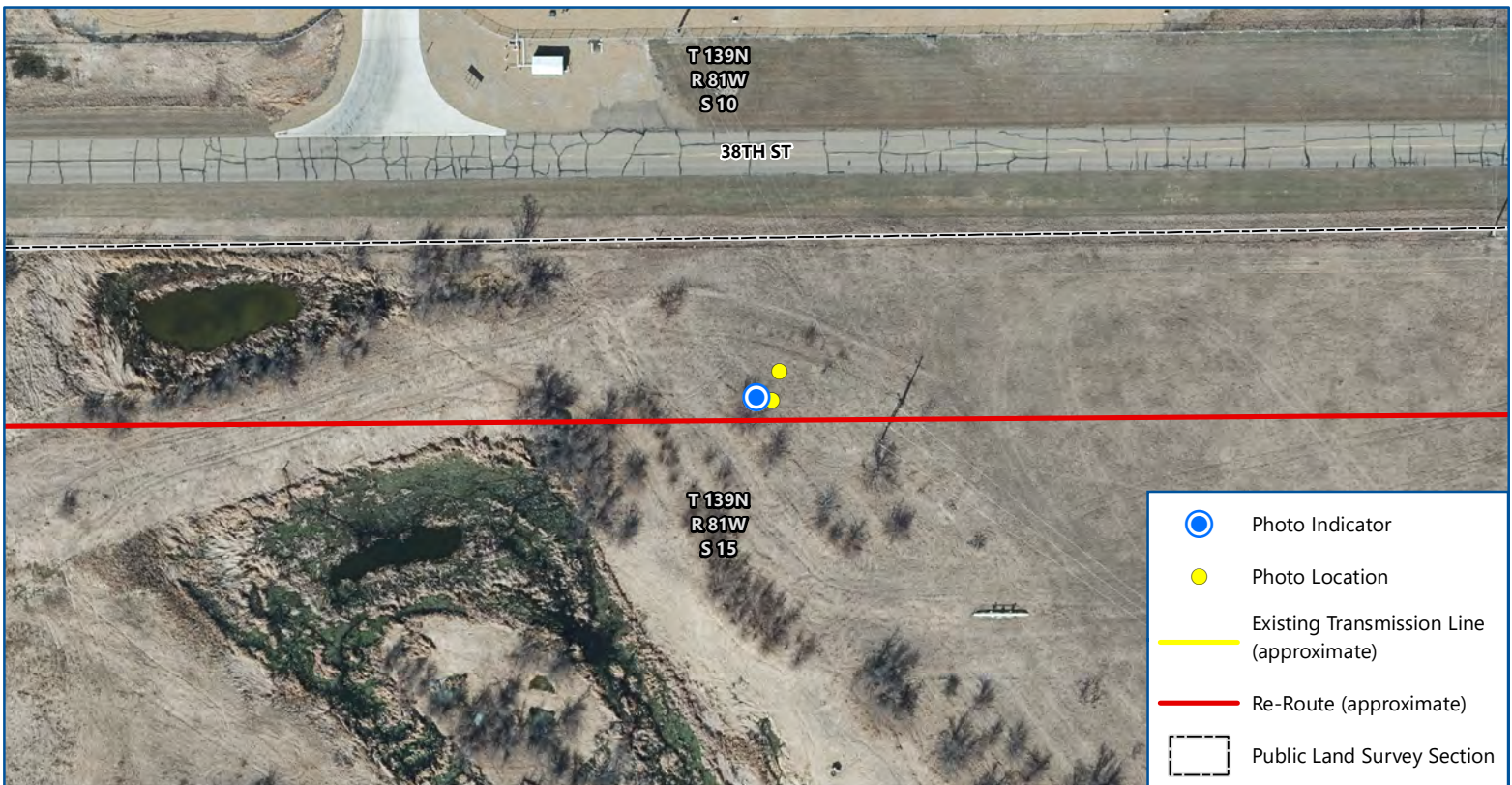
Photo Direction: North

Comment: Preliminary tower site. Tower was moved due to underground utilities. Top soil replaced, seeding not evident.

Latitude: -100.887725

Longitude: 46.864474





- Photo Indicator
- Photo Location
- Existing Transmission Line (approximate)
- Re-Route (approximate)
- Public Land Survey Section

Map 7 of 15

**MDU 230KV  
TRANSMISSION LINE**

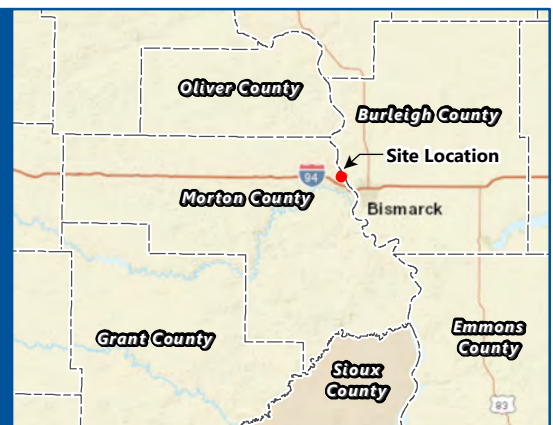
North Dakota Public Service Commission  
Mountrail County, North Dakota

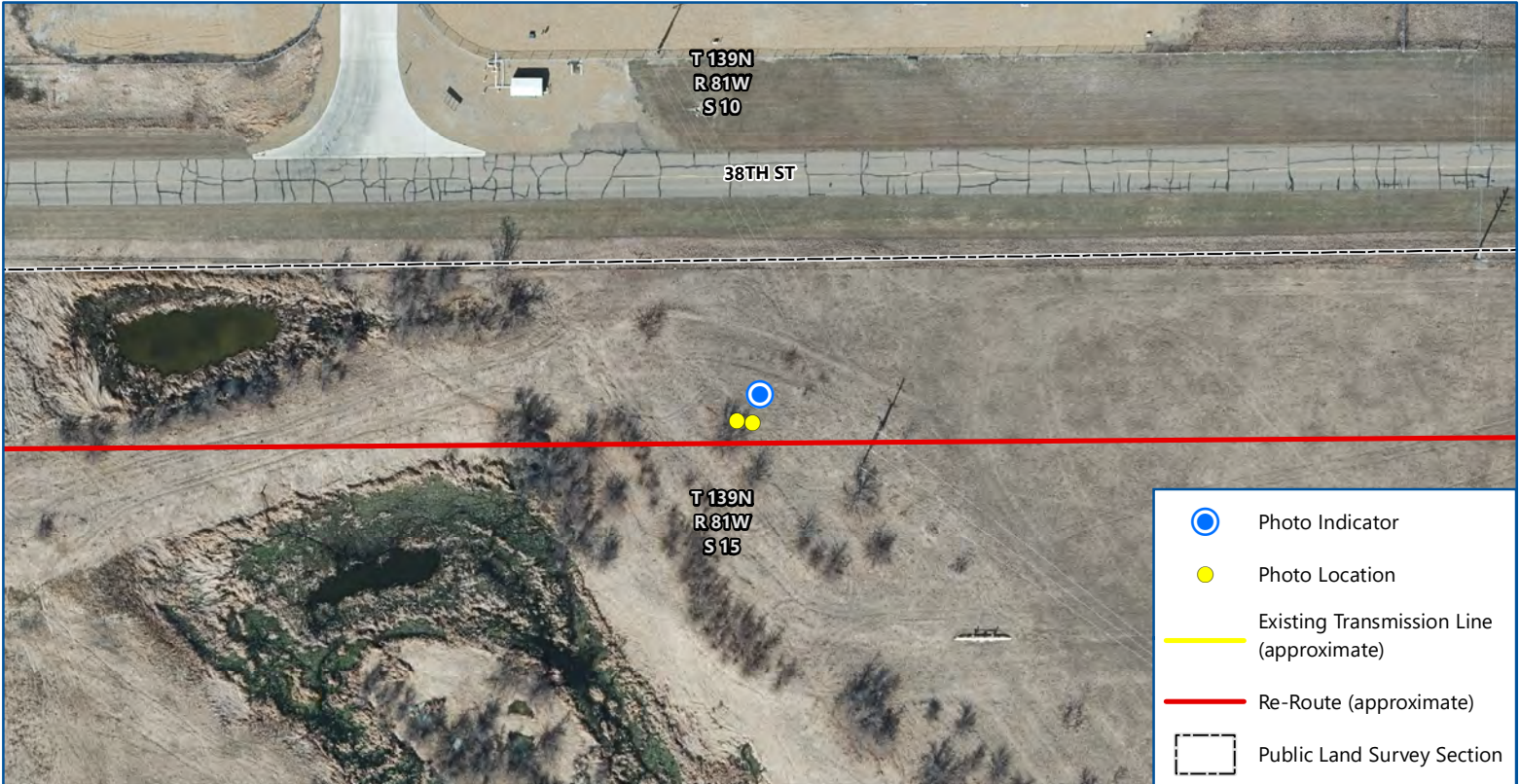







Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: South  
Comment: Tower 6. Topsoil replaced,  
regrowth beginning

Latitude: -100.887757  
Longitude: 46.864477  
Coordinates are in the WGS84 datum.





-  Photo Indicator
-  Photo Location
-  Existing Transmission Line (approximate)
-  Re-Route (approximate)
-  Public Land Survey Section

Map 8 of 15

**MDU 230KV  
TRANSMISSION LINE**

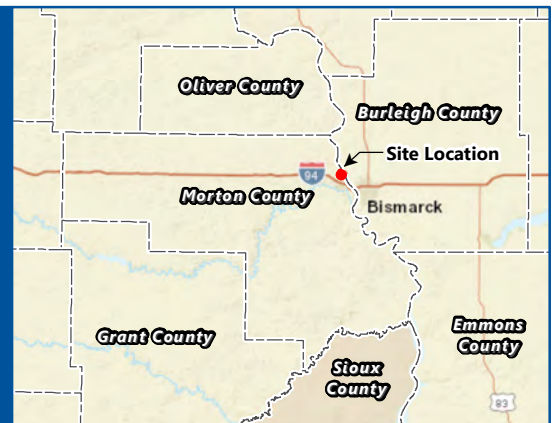
North Dakota Public Service Commission  
Mountrail County, North Dakota

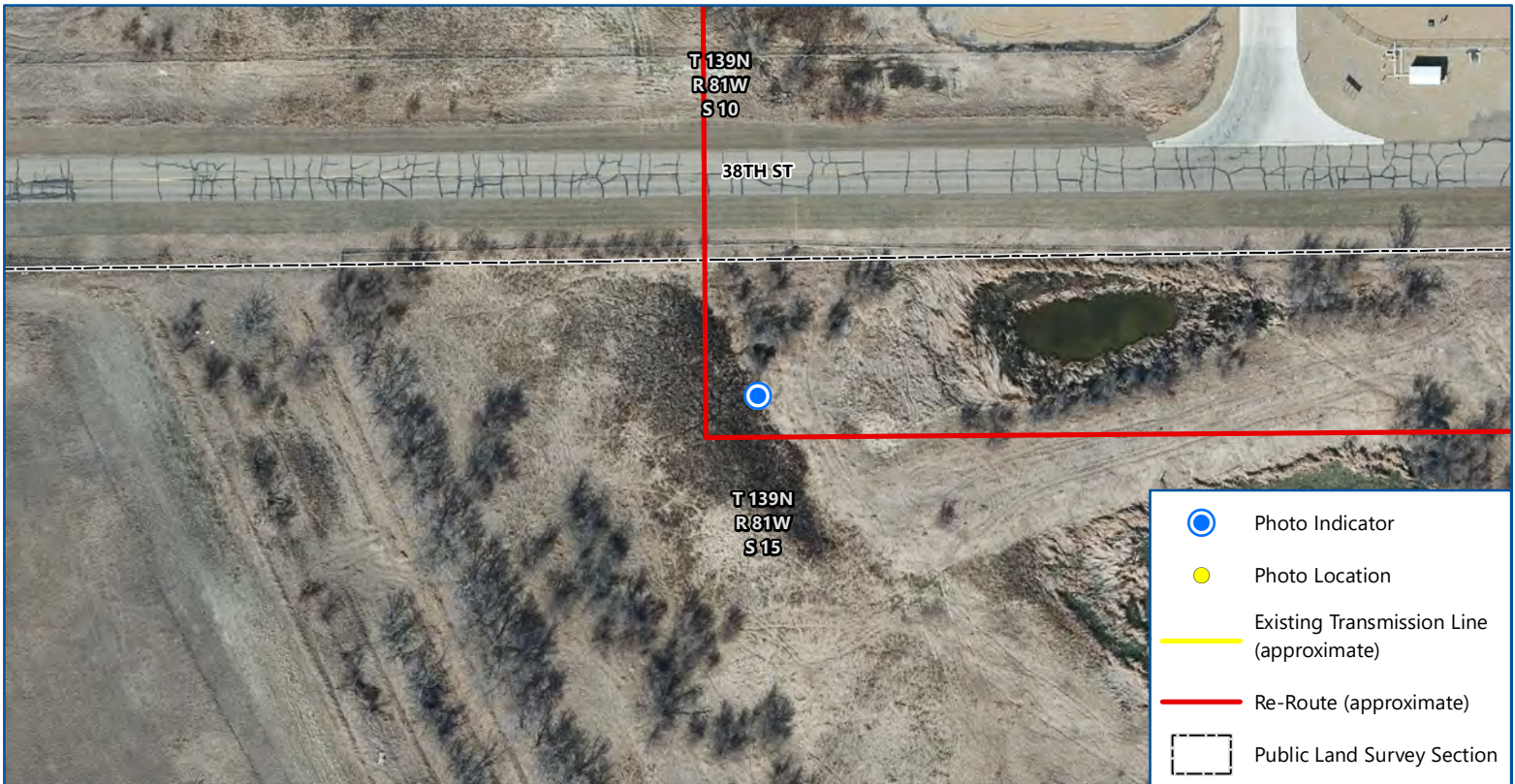


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: Southwest  
Comment: Tower 7

Latitude: -100.887708  
Longitude: 46.864515  
Coordinates are in the WGS84 datum.





Map 9 of 15

**MDU 230KV  
TRANSMISSION LINE**

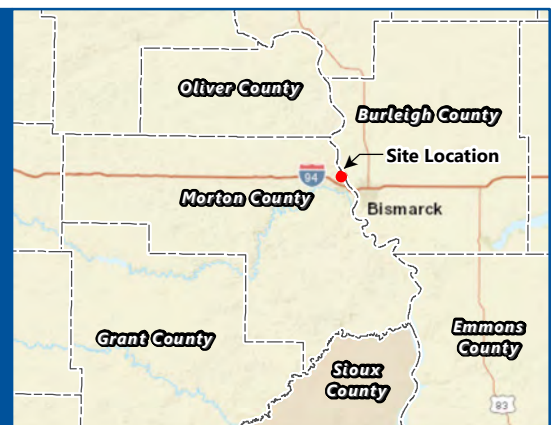
North Dakota Public Service Commission  
Mountrail County, North Dakota

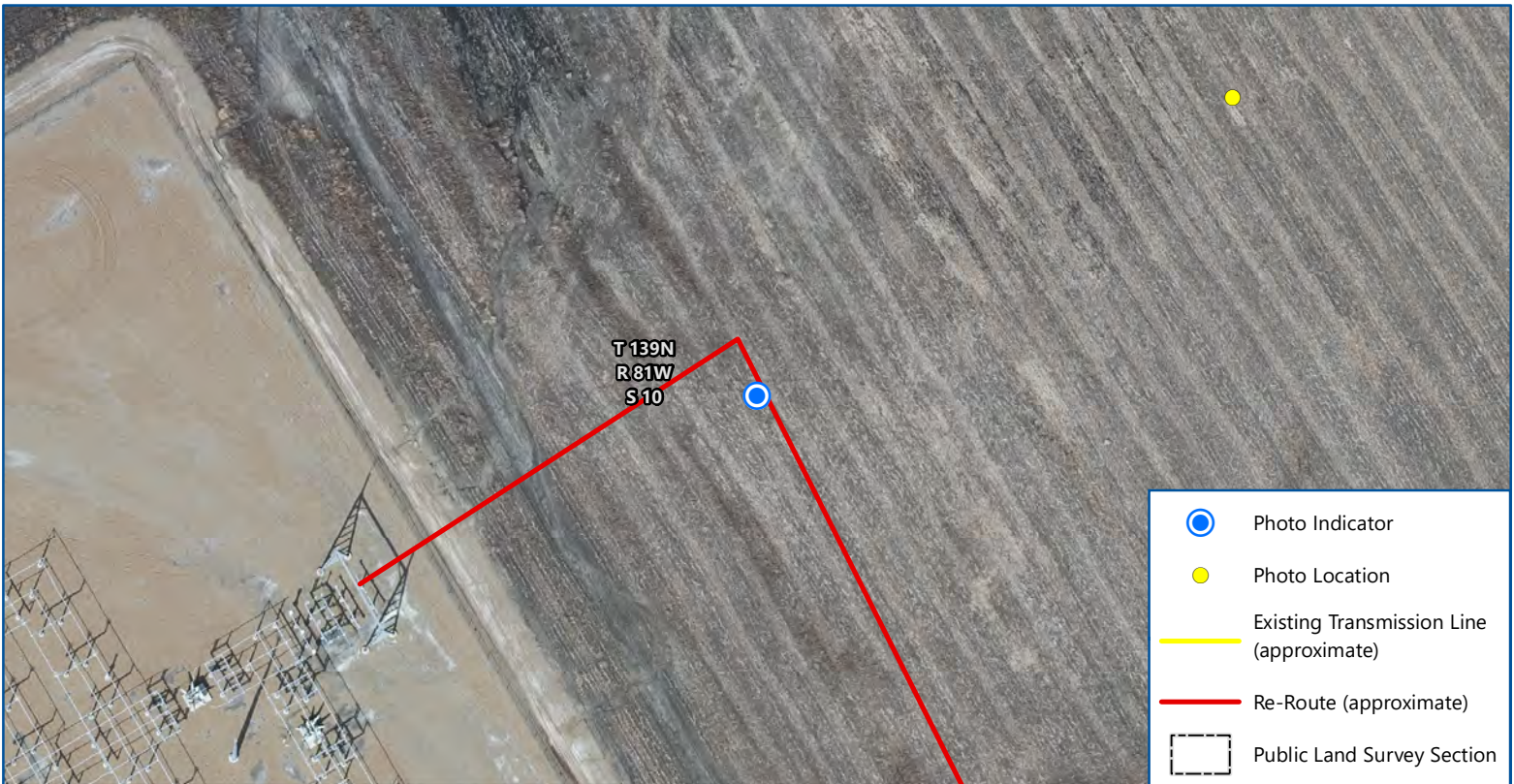


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: West  
Comment: Towers 8, 9, 10. Underwater, inaccessible. Topsoil replacement evident.

Latitude: -100.88964  
Longitude: 46.864488  
Coordinates are in the WGS84 datum.





Map 10 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota



Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023

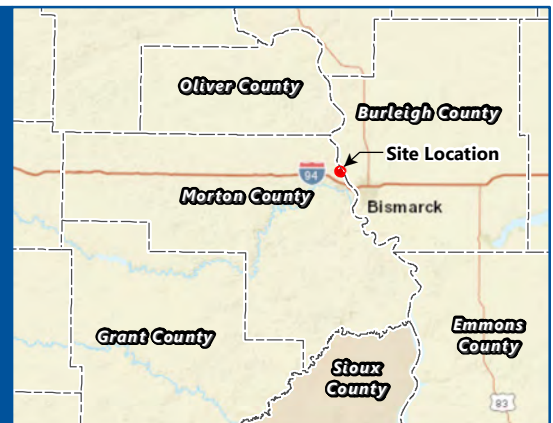
Photo Direction: East

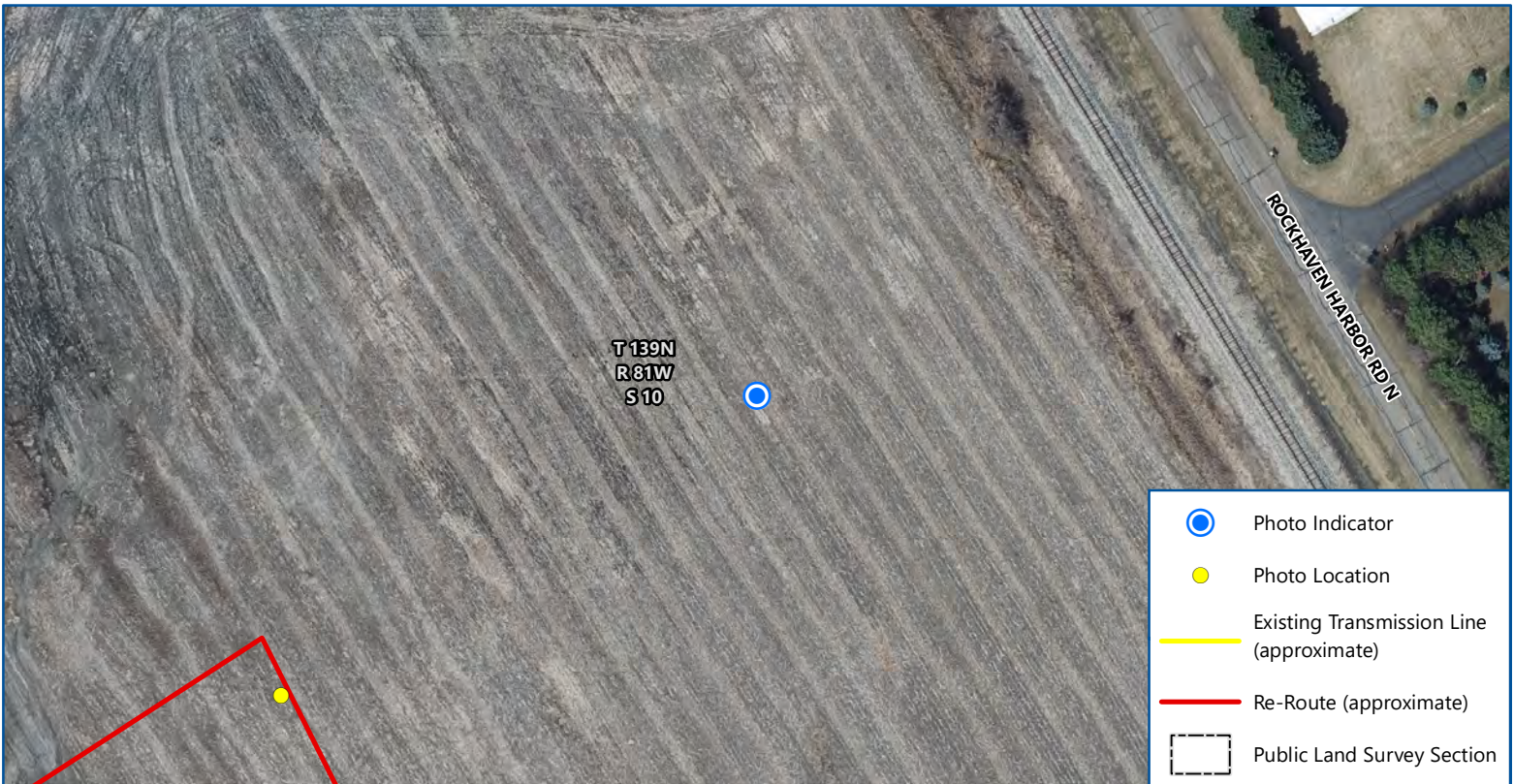
Comment: Towers east of transmission station. Agricultural field.

Latitude: -100.893447

Longitude: 46.875509

Coordinates are in the WGS84 datum.





Map 11 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota

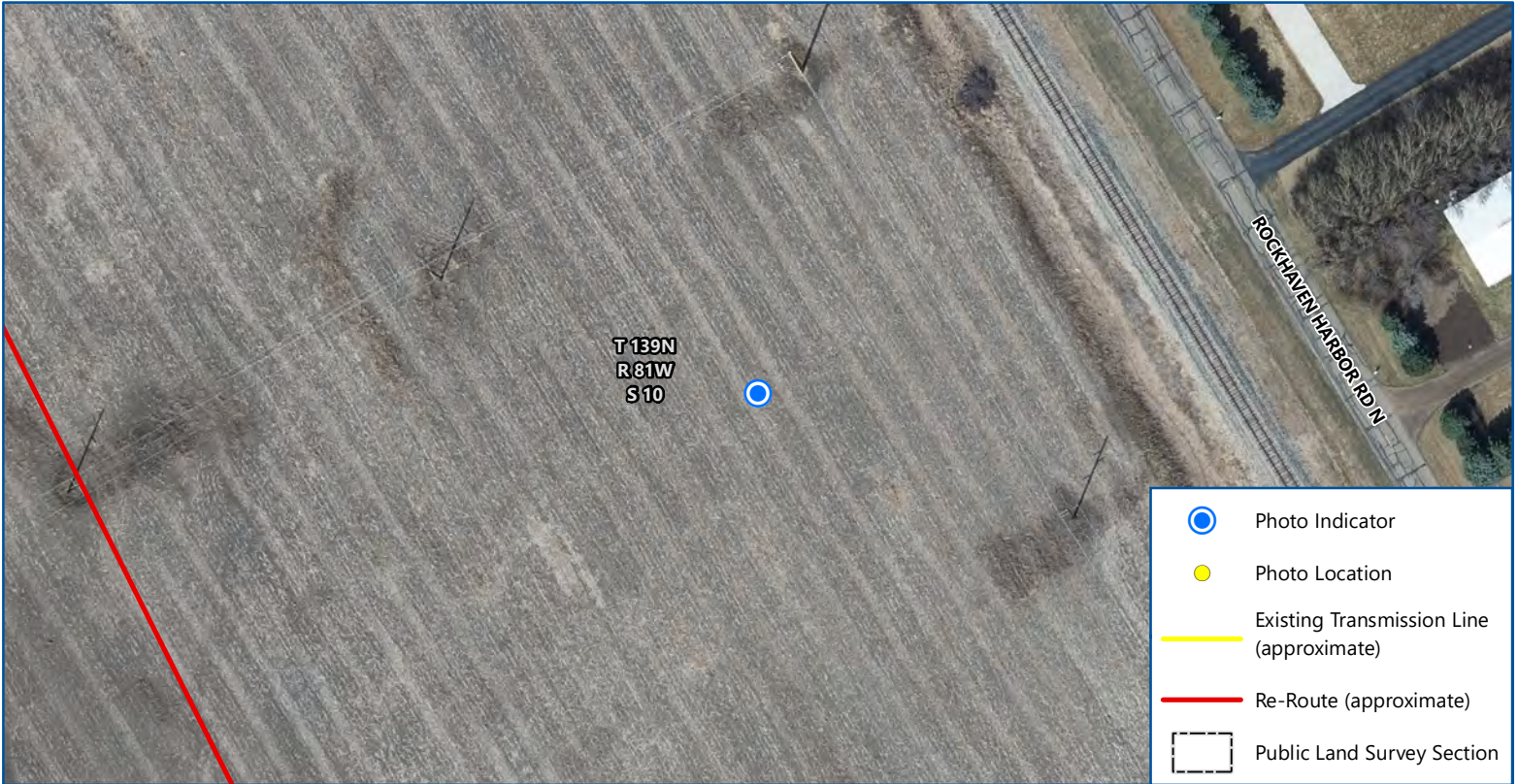


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: East  
Comment: Three towers northeast corner of the line. Agricultural field.

Latitude: -100.892428  
Longitude: 46.875953  
Coordinates are in the WGS84 datum.





Map 12 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota

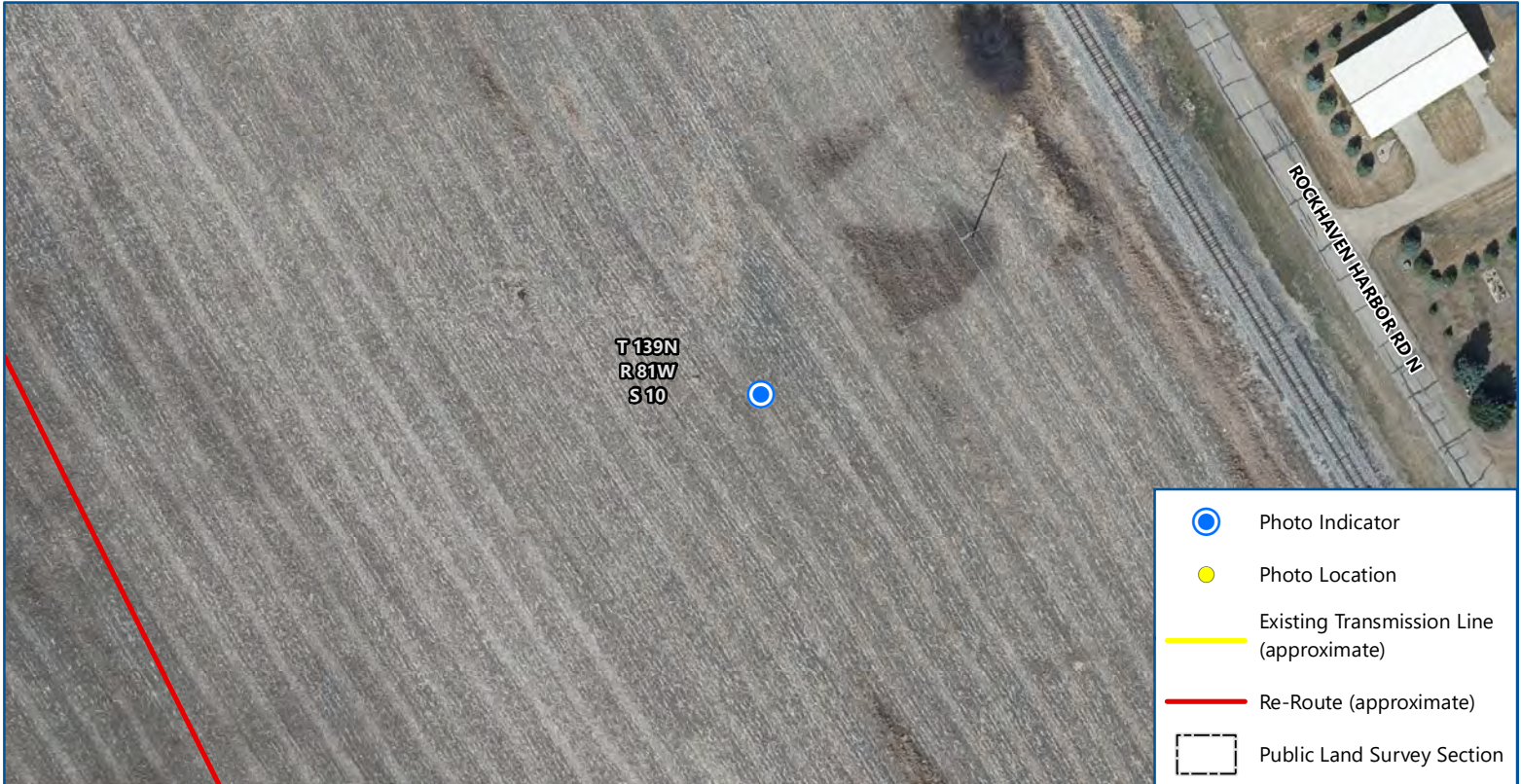


Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: West  
Comment: Southeast of transmission station. Agricultural field.

Latitude: -100.891458  
Longitude: 46.874947  
Coordinates are in the WGS84 datum.





Map 13 of 15

**MDU 230KV  
TRANSMISSION LINE**

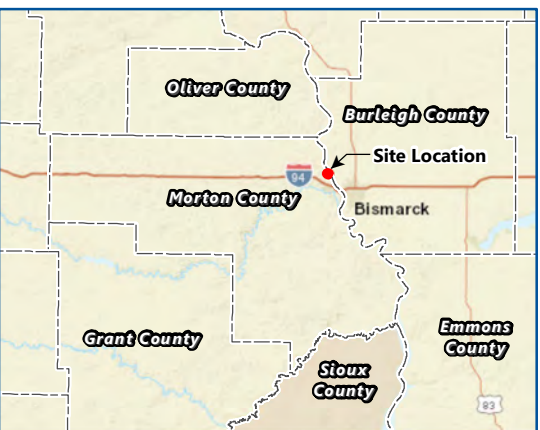
North Dakota Public Service Commission  
Mountrail County, North Dakota

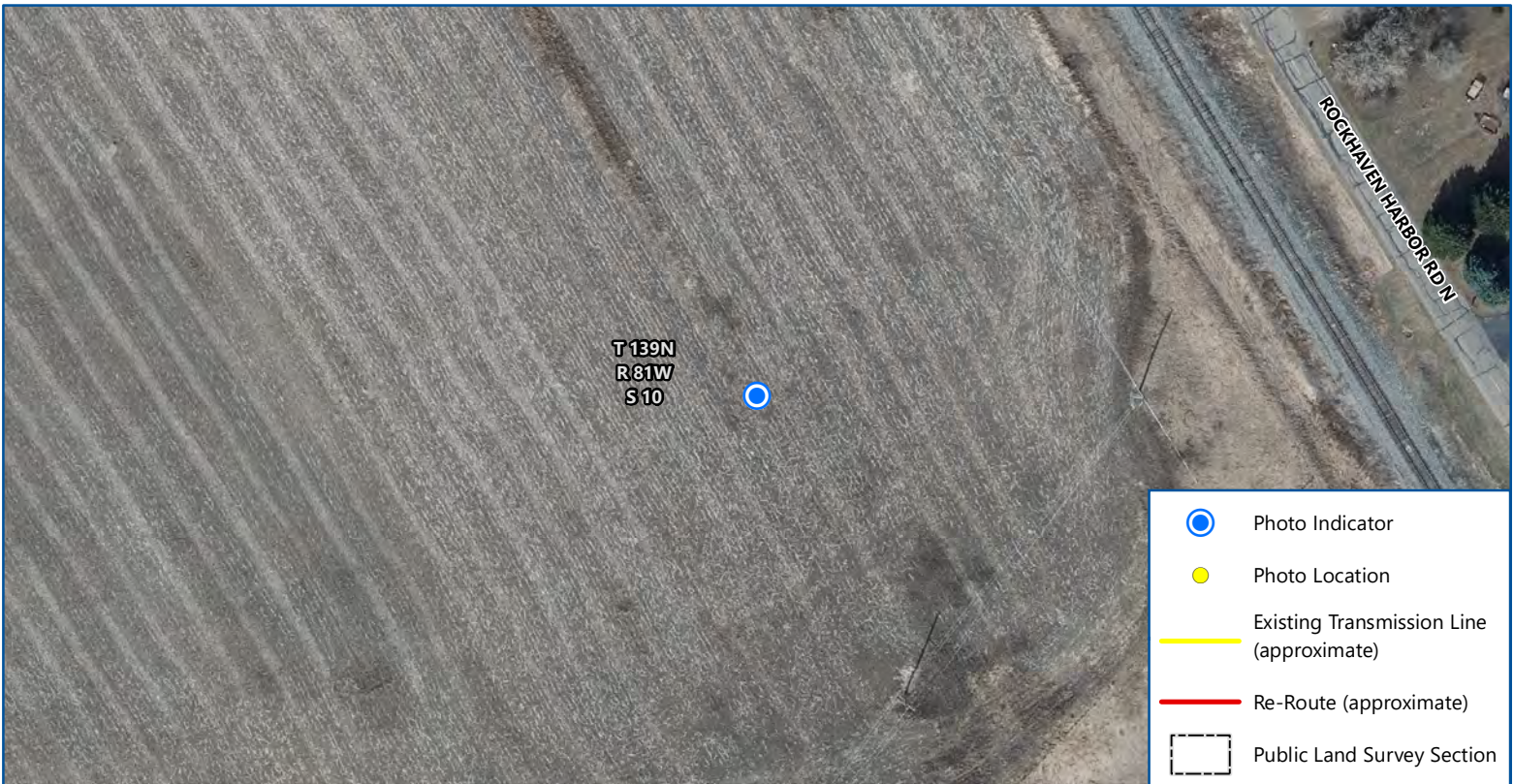
0 100  
Feet

Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
 Photo Direction: West  
 Comment: Towers south-southeast of transmission station. Agricultural field.

Latitude: -100.890637  
 Longitude: 46.873879  
 Coordinates are in the WGS84 datum.





Map 14 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota

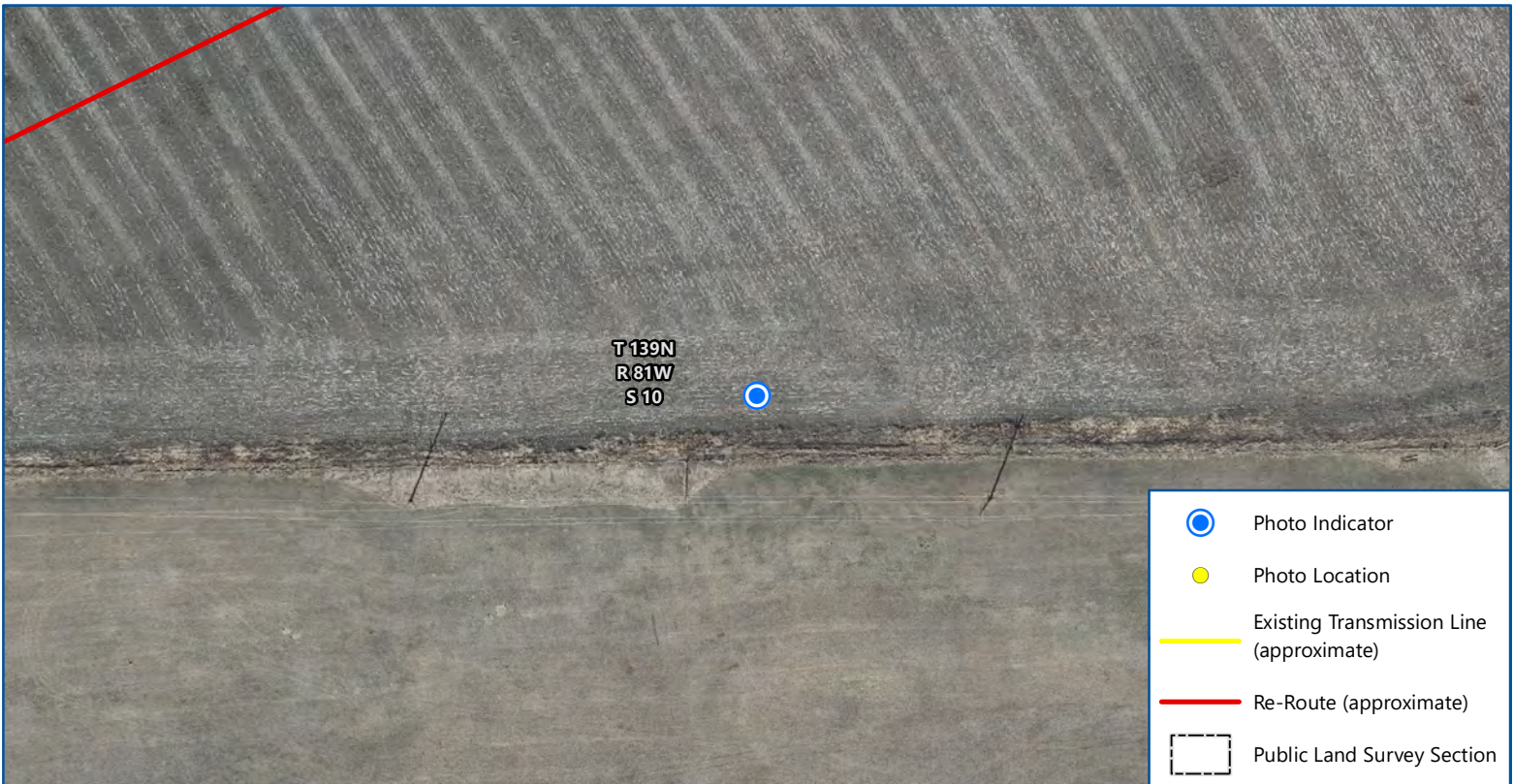







Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: West  
Comment: Single tower south-southeast of transmission station. Agricultural field.

Latitude: -100.889822  
Longitude: 46.872785  
Coordinates are in the WGS84 datum.





-  Photo Indicator
-  Photo Location
-  Existing Transmission Line (approximate)
-  Re-Route (approximate)
-  Public Land Survey Section

Map 15 of 15

**MDU 230KV  
TRANSMISSION LINE**

North Dakota Public Service Commission  
Mountrail County, North Dakota



Imagery: Bismarck Mandan MPO (2020)

Date: 5/5/2023  
Photo Direction: West  
Comment: Towers south of transmission station. Edge of agricultural field.

Latitude: -100.891633  
Longitude: 46.872032  
Coordinates are in the WGS84 datum.

