

# Memorandum

To	North Dakota Public Service Commission	Pages	2
Subject	Case Number PU-18-280 Emmons-Logan Wind Energy Center Modifications of Energy Conversion Facility and Site Plan		
From	Emmons-Logan Wind, LLC		
Date	July 19, 2019		

## Introduction

Pursuant to Certification Relating to Order Provision Number 38, Emmons-Logan Wind, LLC (Emmons-Logan Wind) submits to the North Dakota Public Service Commission (Commission) this supporting documentation for proposed modifications to the Emmons-Logan Wind Energy Center (Project) and Project Site Plan (Attachments 1 through 3). The Project Site Plan modifications include a minor shift of three access roads resulting from (i) constructability issues identified by the construction contractor. The changes include an approximately 2,500-foot-long segment of access road to turbines 23, 24, and 25, which will be shifted approximately 50 feet to the north; an approximately 2,620 foot-long segment of access road to turbines 18 and 19, which will shift approximately 150 feet to the north; and an approximately 985 foot-long access road to turbine 46, which will shift approximately 805 feet to the east (Attachment 2).

## Project Site Plan Modifications

Attachment 2 illustrates locations of the Project Site Plan modifications. Emmons-Logan Wind notified landowners of the Project Site Plan modifications and no objections were received. The Project Site Plan modifications have been surveyed for wetlands, cultural, and tribal resources. Attachments 1 through 3 provide updated Project Site Plan maps.

### Wetlands

The Project Site Plan modifications will avoid any wetland impacts per wetland delineations completed by AECOM.

### Cultural and Tribal Resources

The Project Site Plan modifications do not impact any cultural or tribal resources per a joint Class III Cultural Resources and tribal survey completed by AECOM. Emmons-Logan Wind will submit an amended Class III Cultural Resources Inventory Letter Report to the State Historical Society of North Dakota for review and concurrence. The concurrence letter will be filed with the Commission when received.

### Tree and Shrubs

The 2,500 foot-long modified access road will clear cut through a shelterbelt area greater than 50 feet. Per the Tree and Shrub Mitigation Specifications Emmons-Logan Wind is requesting approval from the Commission to clear cut a width greater than 50 feet in this area. The landowner requested the access road be constructed in this location and has no objections to tree and shrub removal. This modified access road has been inventoried for trees and shrubs per the Tree and Shrub Mitigation Specifications and includes the location, number, and species of trees and shrubs. Emmons-Logan Wind will replace all removed trees and shrubs at a 2:1 ratio per the Tree and Shrub Mitigation Specifications.

### Other Impacts

The Project Site Plan modifications fall within areas previously covered by the avian, raptor, lek, and nest surveys and the whooping crane and bat habitat desktop assessments. The Project Site Plan modifications do not change the results of those studies, and there are no new impacts to native prairie or unbroken grasslands. Project Site Plan modifications resulted in negligible changes to the total Project impacts calculations presented in Table 1-4 of the Project Application (Docket No. 1). The Project Site Plan modifications will not impact the Commission's Exclusion and Avoidance Criteria as presented in Tables 3-1 and 3-2 of the Project Application.

### **Conclusion**

The Project Site Plan modifications comply with Commission's Exclusion, Avoidance, Selection, and Policy Criteria and are consistent with the Project's Findings of Fact, Conclusions of Law and Order.

### **Attachments:**

1. Modified Energy Conversion Facility Site Plan Overview Map
2. Site Plan Modification Map Book
3. Modified Energy Conversion Facility Site Plan Map Book

# EMMONS-LOGAN WIND ENERGY CENTER EMMONS AND LOGAN COUNTIES, ND

## LEGEND

- County Road
- Existing 230 kV Heskett-Wishek Transmission Line
- County Boundary
- PLSS Township
- PLSS Section

- Occupied Residence - Participating Landowner
- ▼ Occupied Residence - Non-Participating Landowner
- ▨ \*Non-participating Landowner
- ▨ \*\*Non-participating Parcel

## Project Features

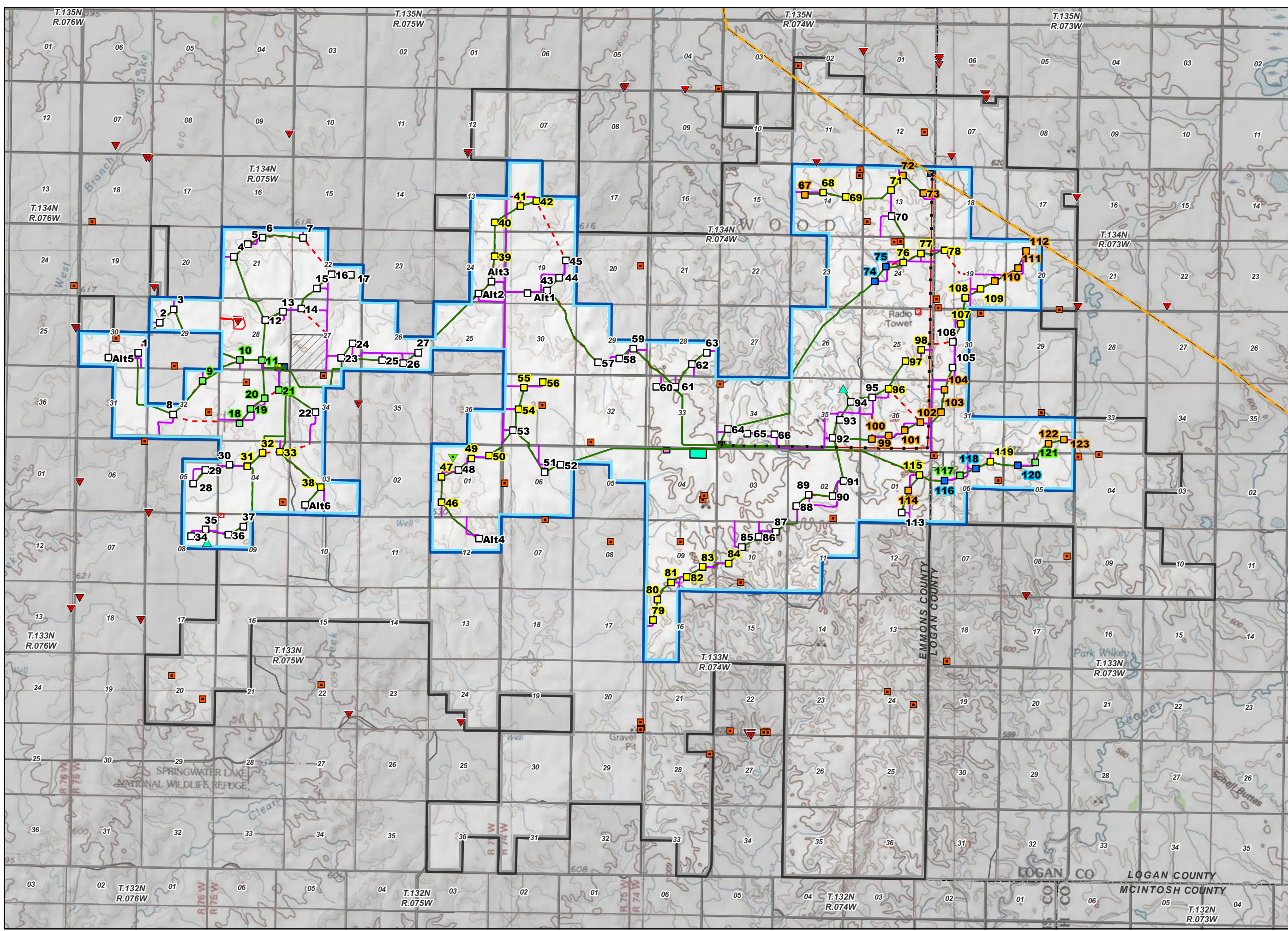
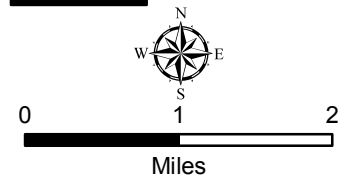
### Turbines

- GE 1.715 MW 262HH
- GE 2.72 MW 262 HH
- GE 2.72 MW 262 HH, LNTE
- GE 2.72 MW 295 HH
- GE 2.72 MW 295 HH, LNTE
- ▲ Met Tower
- ▼ Alternative Met Tower

- Service Road
- Collection Line
- - Crane Path
- 230 kV Transmission Line Route
- 230 kV Transmission Line Corridor
- 230 kV Transmission Line Pole Location
- ▭ Original Emmons-Logan Wind Energy Center Project Area (64,563 Acres)
- ▭ Revised Emmons-Logan Wind Energy Center Project Area (28,097 Acres)
- Substation
- O&M Building
- Batch Plant
- Laydown Yard












\*Non-participating Landowners outside of the Project Area are not shown on map.

\*\*Owns land participating in the Project Area elsewhere.

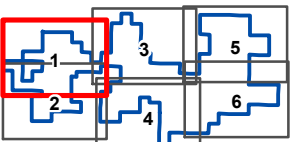


**EMMONS-LOGAN  
WIND ENERGY CENTER  
EMMONS AND LOGAN  
COUNTIES, ND**

**LEGEND**

-  County Boundary
-  Existing Road
- Project Features**
-  Turbine
-  Met Tower
-  Service Roads Revised July 2019
-  Service Road - No Revisions
-  Service Road - June 2019
-  Collection Line - No Revisions
-  Emmons-Logan Wind Energy Center Project Area
-  Substation
-  O&M Building

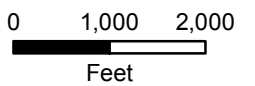
*Disclaimer: Call-outs highlight locations of the more notable Site Plan modifications; whereas minor modifications that are imperceptible at the map scale can be viewed using the provided GIS shapefiles.*



Map 1 of 6

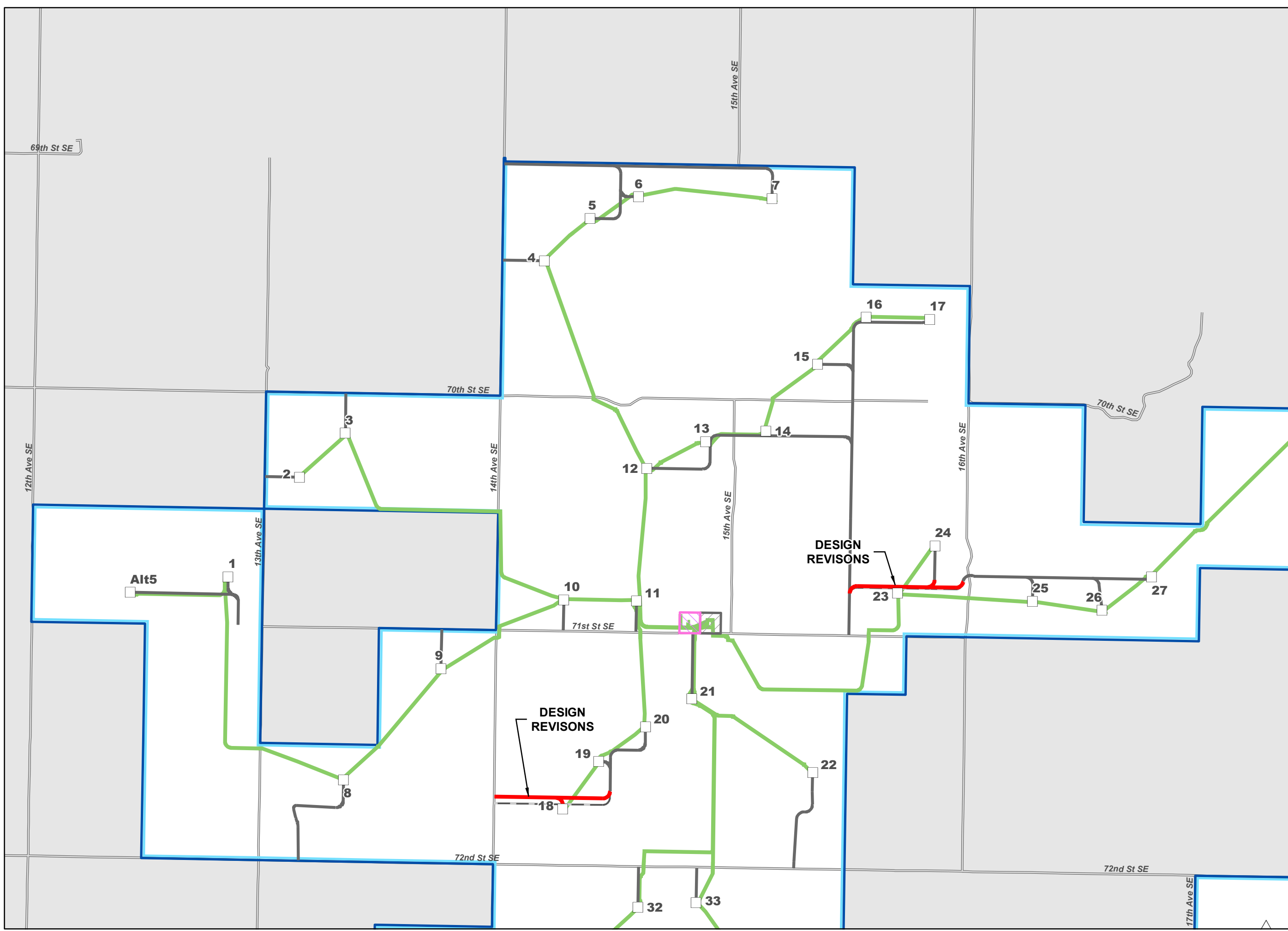


Project Location



**Attachment 2  
Sheet 1 of 6**

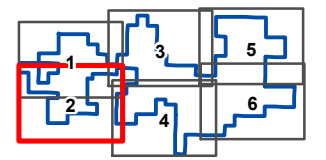
**Site Plan Modification  
Map Book**



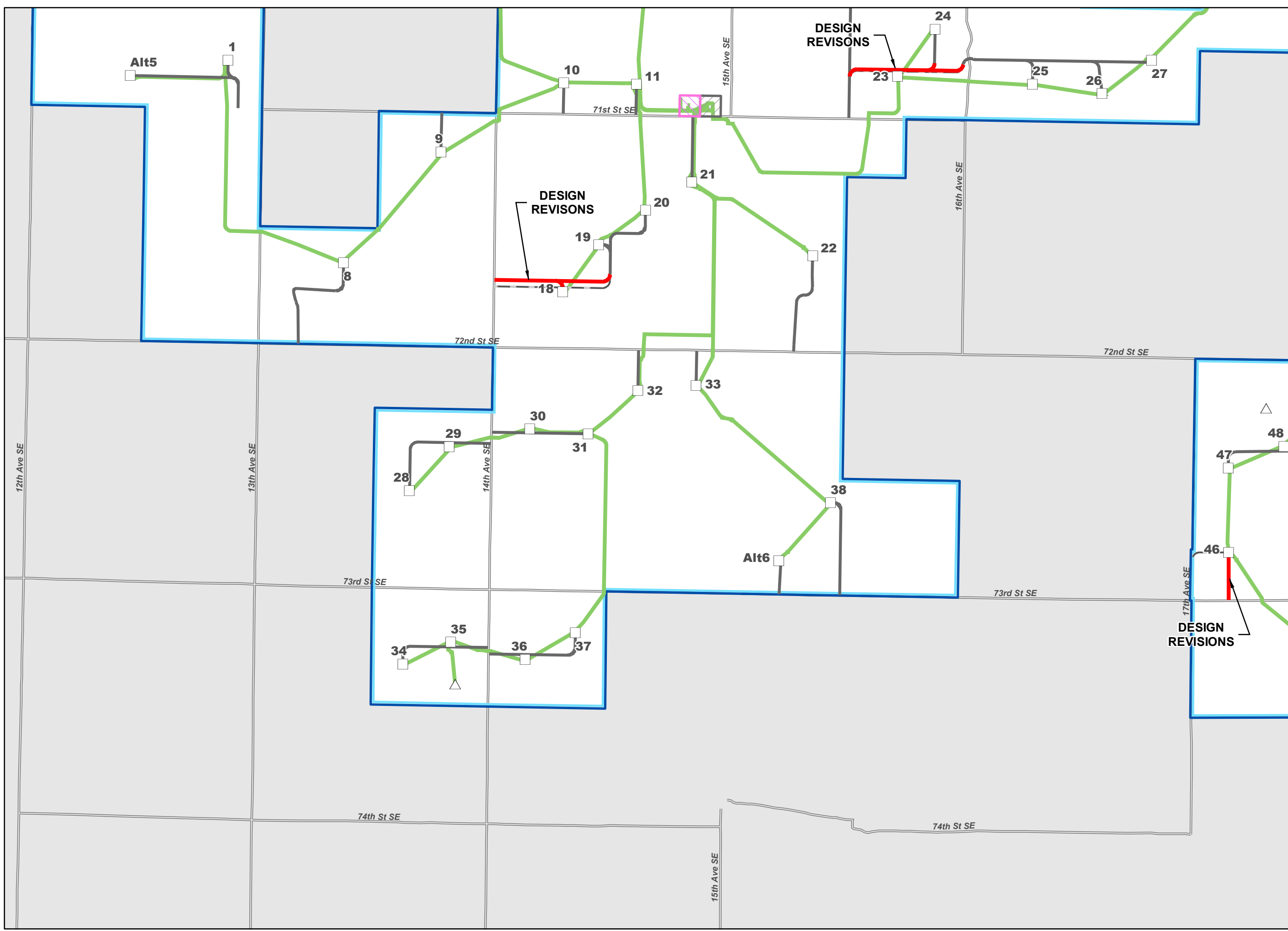
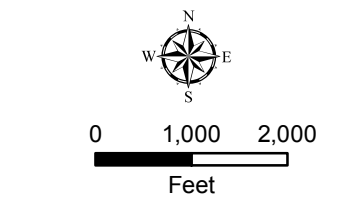
**EMMONS-LOGAN  
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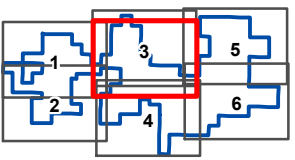
Map 2 of 6



**EMMONS-LOGAN  
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  - Project Features**
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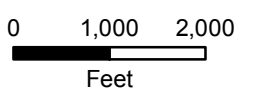
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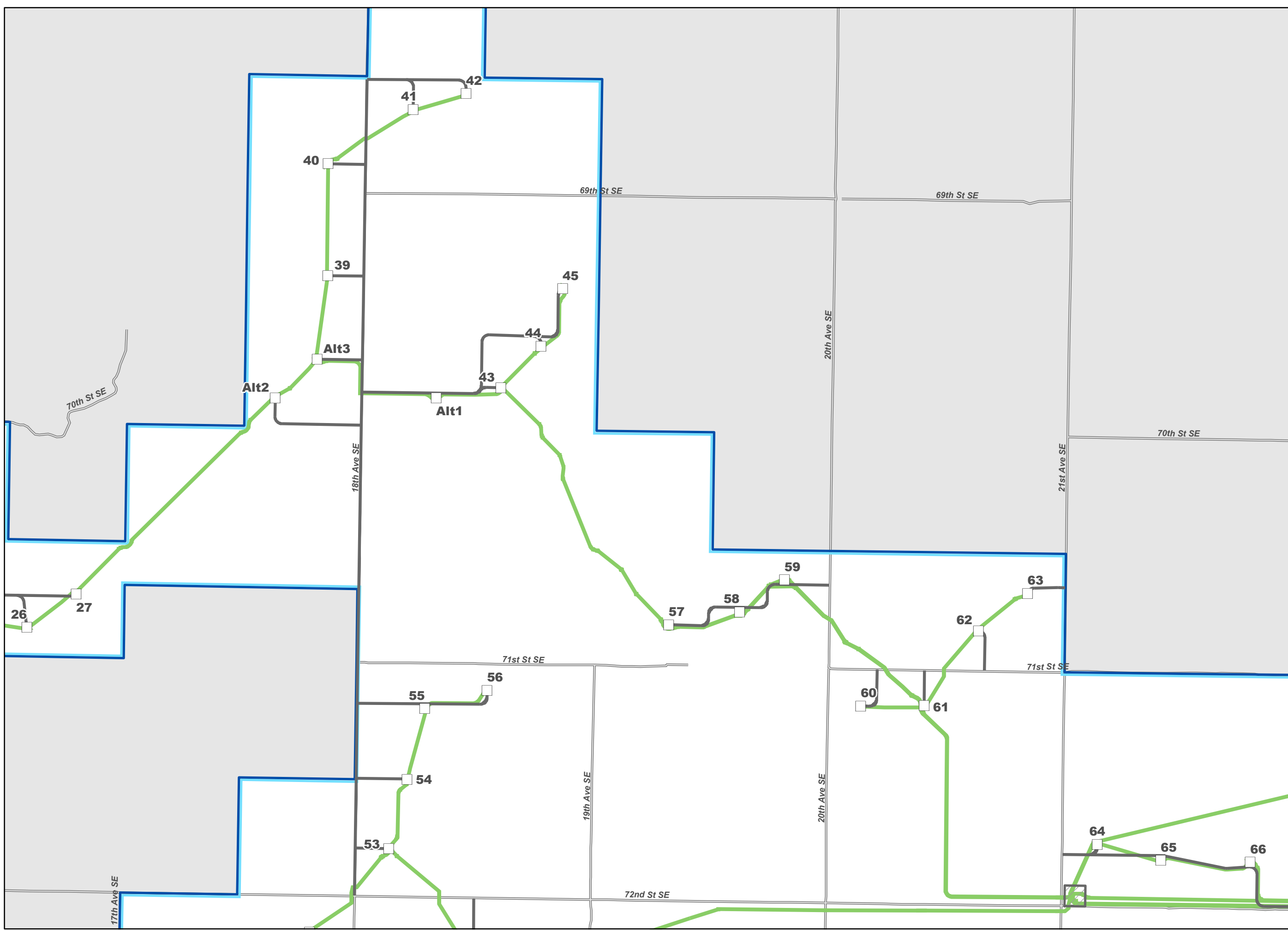
Map 3 of 6



Project Location



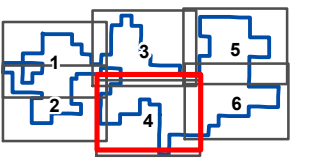
**Attachment 2  
Sheet 3 of 6  
Site Plan Modification  
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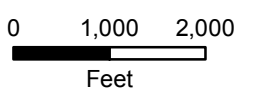
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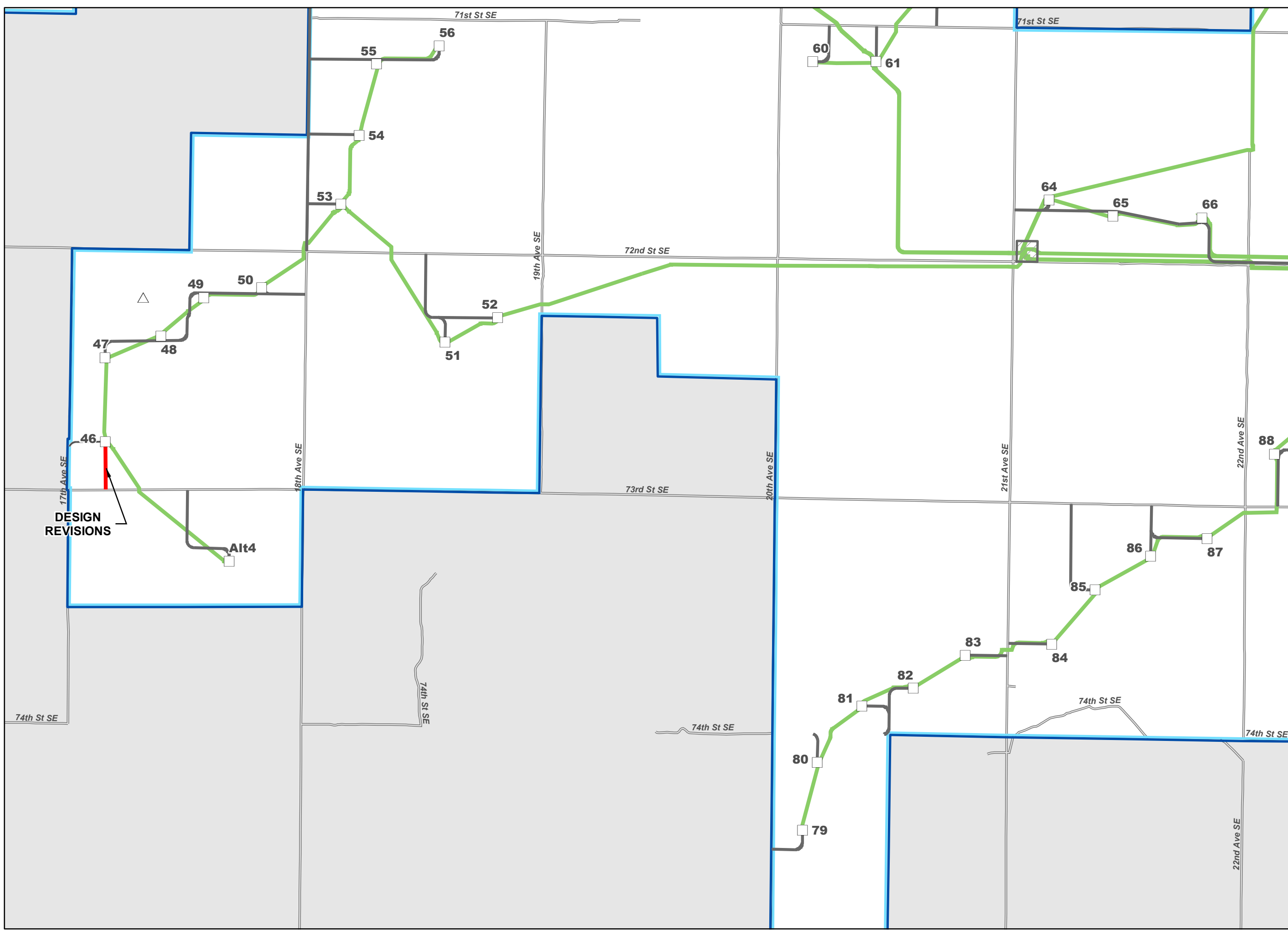
Map 4 of 6



Project Location





**Attachment 2  
Sheet 4 of 6  
Site Plan Modification  
Map Book**









**EMMONS-LOGAN  
WIND ENERGY CENTER  
EMMONS AND LOGAN  
COUNTIES, ND**

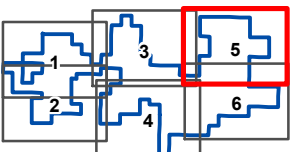
**LEGEND**

-  County Boundary
-  Existing Road

**Project Features**

-  Turbine
-  Met Tower
-  Service Road - No Revisions
-  Service Road - June 2019
-  Collection Line - No Revisions
-  Emmons-Logan Wind Energy Center Project Area

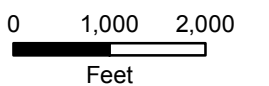
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Map 5 of 6

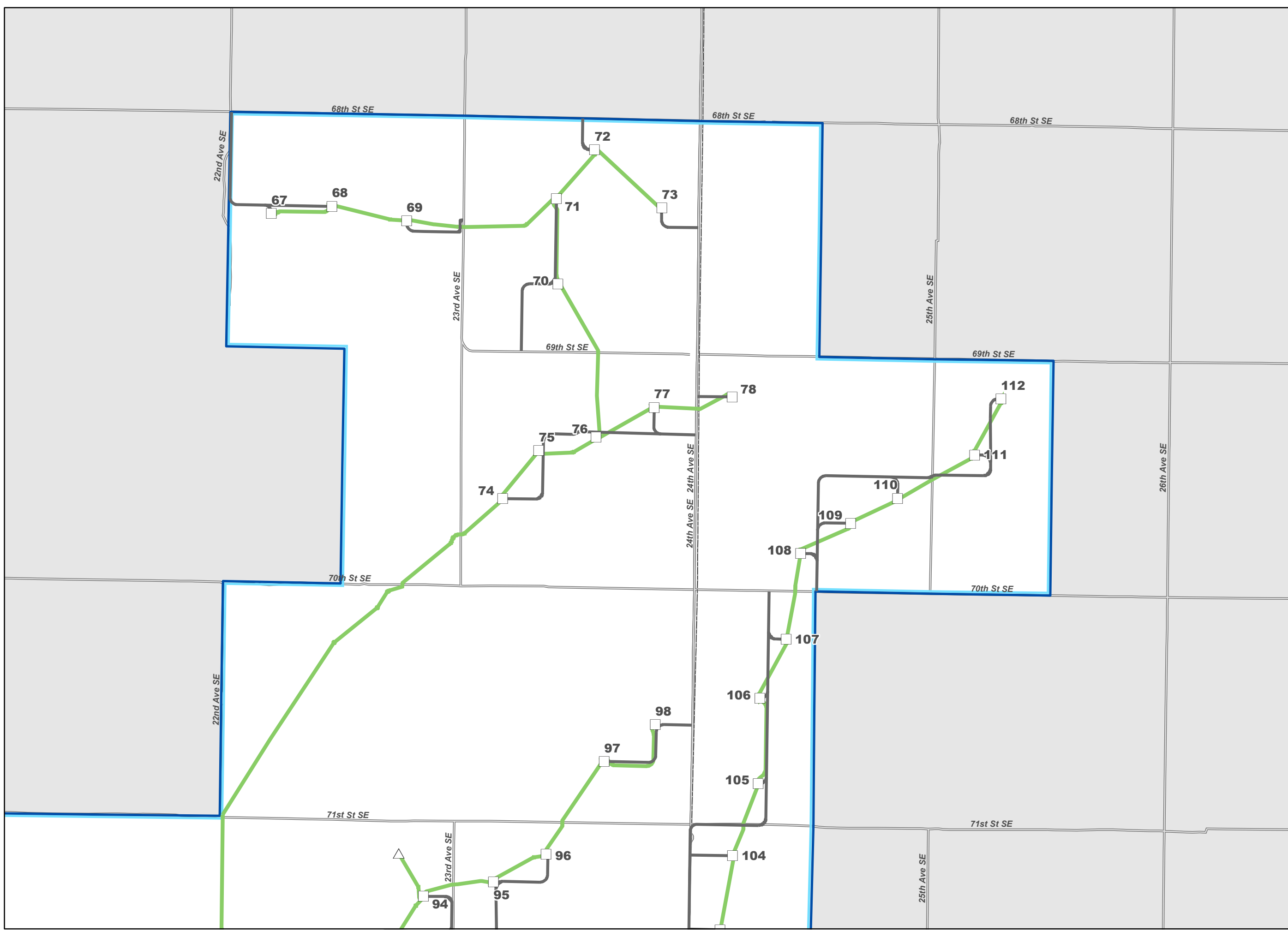


Project Location



**Attachment 2  
Sheet 5 of 6**

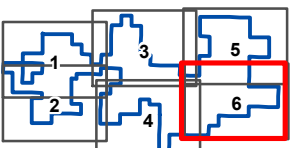
**Site Plan Modification  
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- LEGEND**
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  - Project Features**
  - Turbine
  - Met Tower
  - Service Road - No Revisions
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  - Collection Line - No Revisions
  - Emmons-Logan Wind Energy Center Project Area
  - Substation

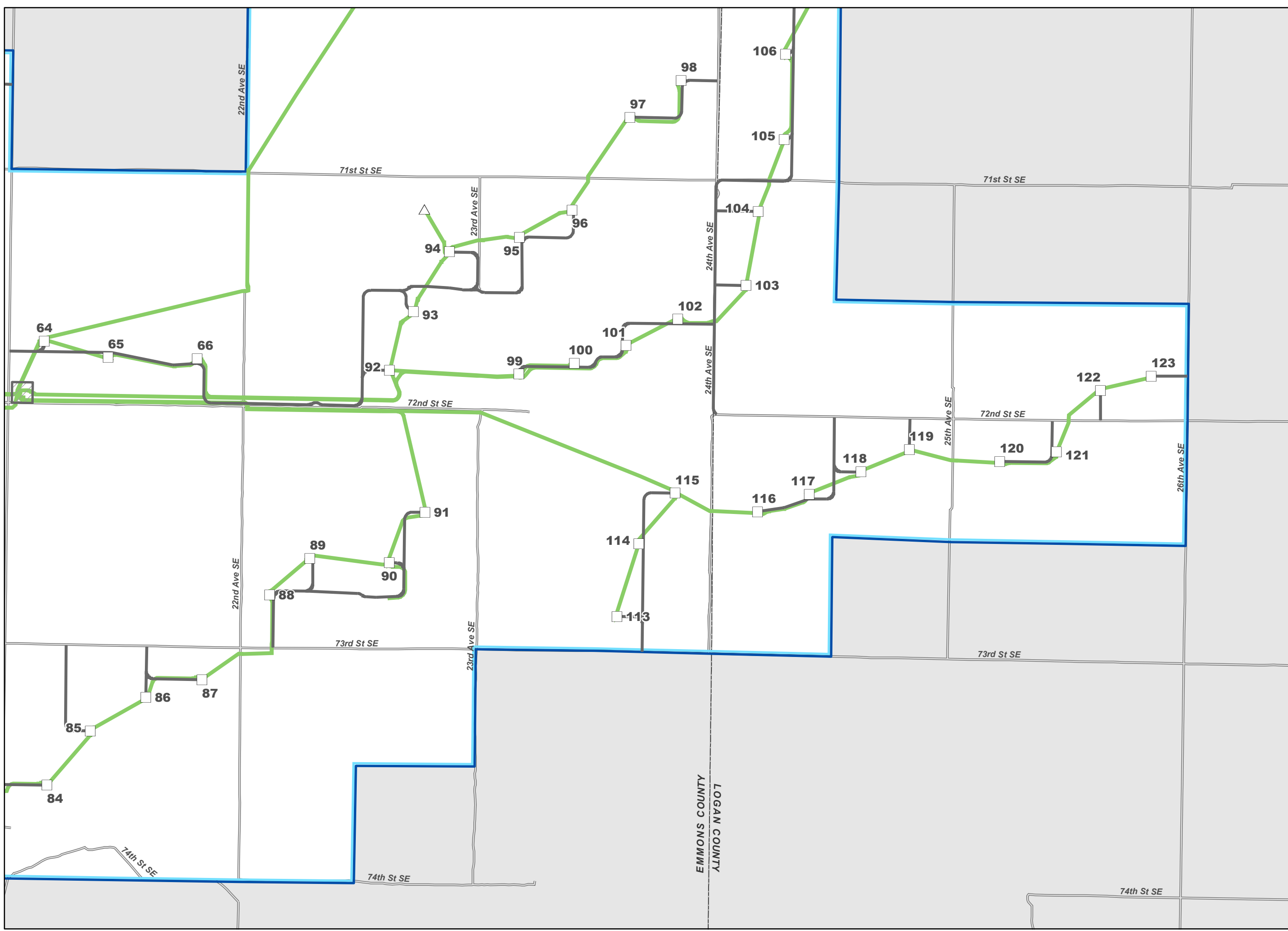
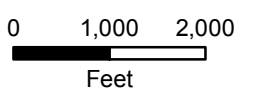
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Map 6 of 6



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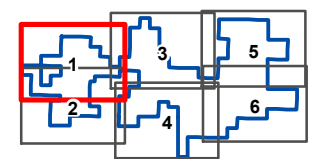
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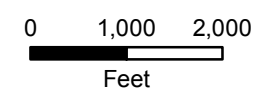
- County Boundary
- PLSS Township
- PLSS Section
- Existing Road

**Project Features**

- Turbines**
- GE 1.715 MW 262HH
  - GE 2.72 MW 295 HH
  - GE 2.72 MW 295 HH, LNTE
  - Alternative Met Tower
  - Service Road
  - Collection Line
  - Collection Line Bore Location
  - Crane Path
  - Emmons-Logan Wind Energy Center Project Area
  - Substation
  - O&M Building



Map 1 of 6



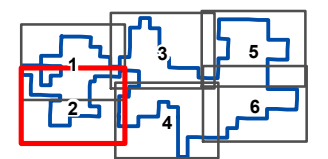
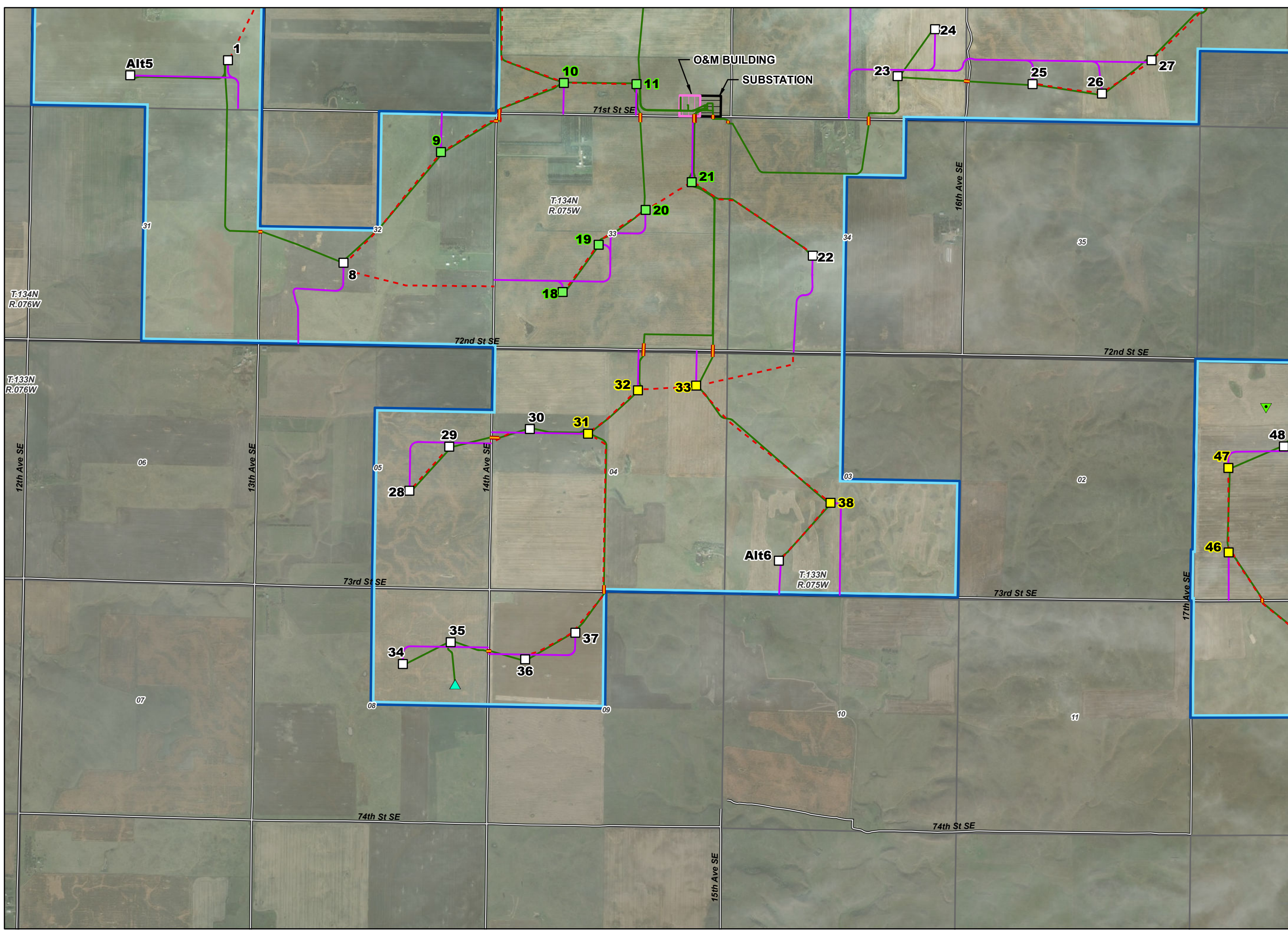
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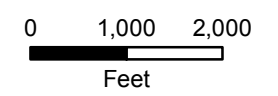
- County Boundary
- PLSS Township
- PLSS Section
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**Project Features**

- Turbines**
- GE 1.715 MW 262HH
  - GE 2.72 MW 295 HH
  - GE 2.72 MW 295 HH, LNTE
  - Met Tower
  - Alternative Met Tower
  - Service Road
  - Collection Line
  - Collection Line Bore Location
  - Crane Path
  - Emmons-Logan Wind Energy Center Project Area
  - Substation
  - O&M Building



Map 2 of 6



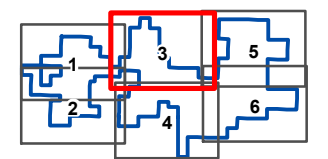
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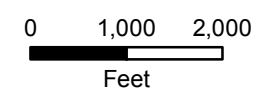
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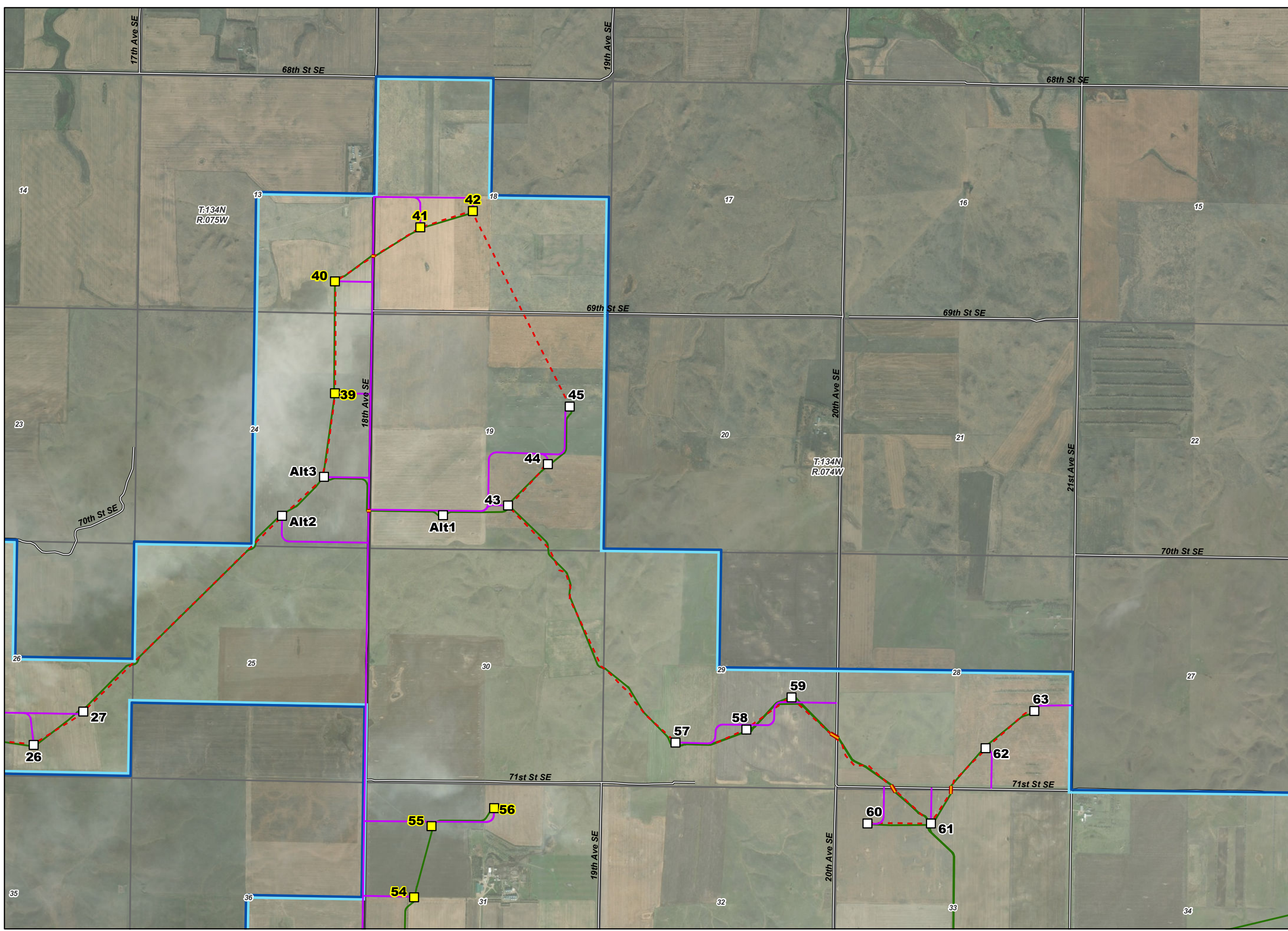
- Turbines**
- GE 1.715 MW 262HH
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  - Service Road
  - Collection Line
  - Collection Line Bore Location
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  - Emmons-Logan Wind Energy Center Project Area



Map 3 of 6


















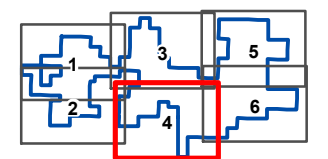
**Attachment 3  
Sheet 3 of 6  
Modified Energy  
Conversion Facility  
Site Plan Map Book**



**EMMONS-LOGAN  
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EMMONS AND LOGAN  
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**LEGEND**

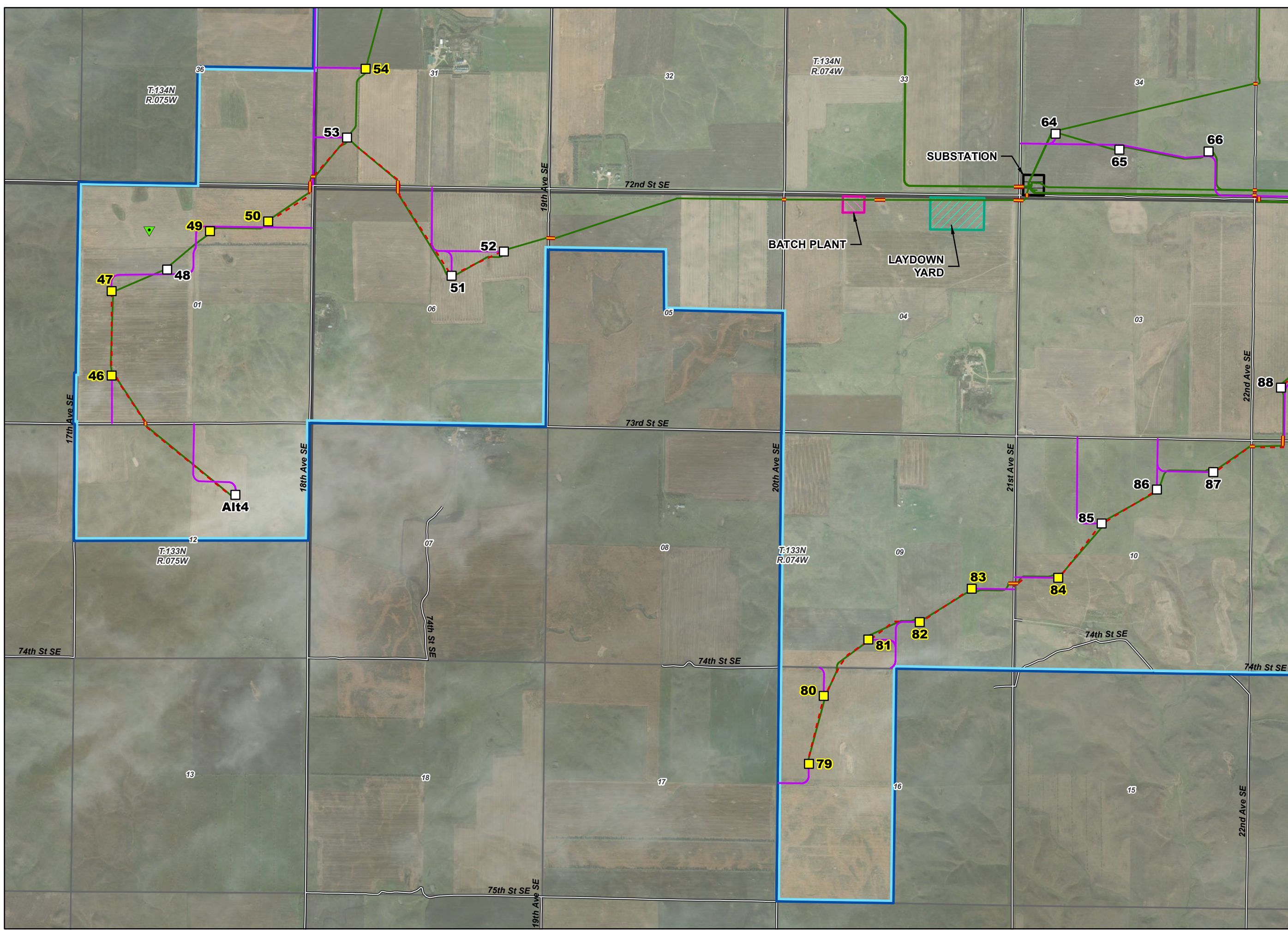
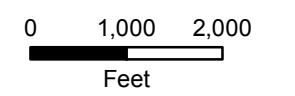
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-  Alternative Met Tower
-  Service Road
-  Collection Line
-  Collection Line Bore Location
-  Crane Path
-  Emmons-Logan Wind Energy Center Project Area
-  Substation
-  Batch Plant
-  Laydown Yard



Map 4 of 6



Project Location



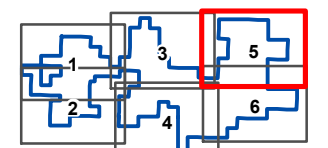
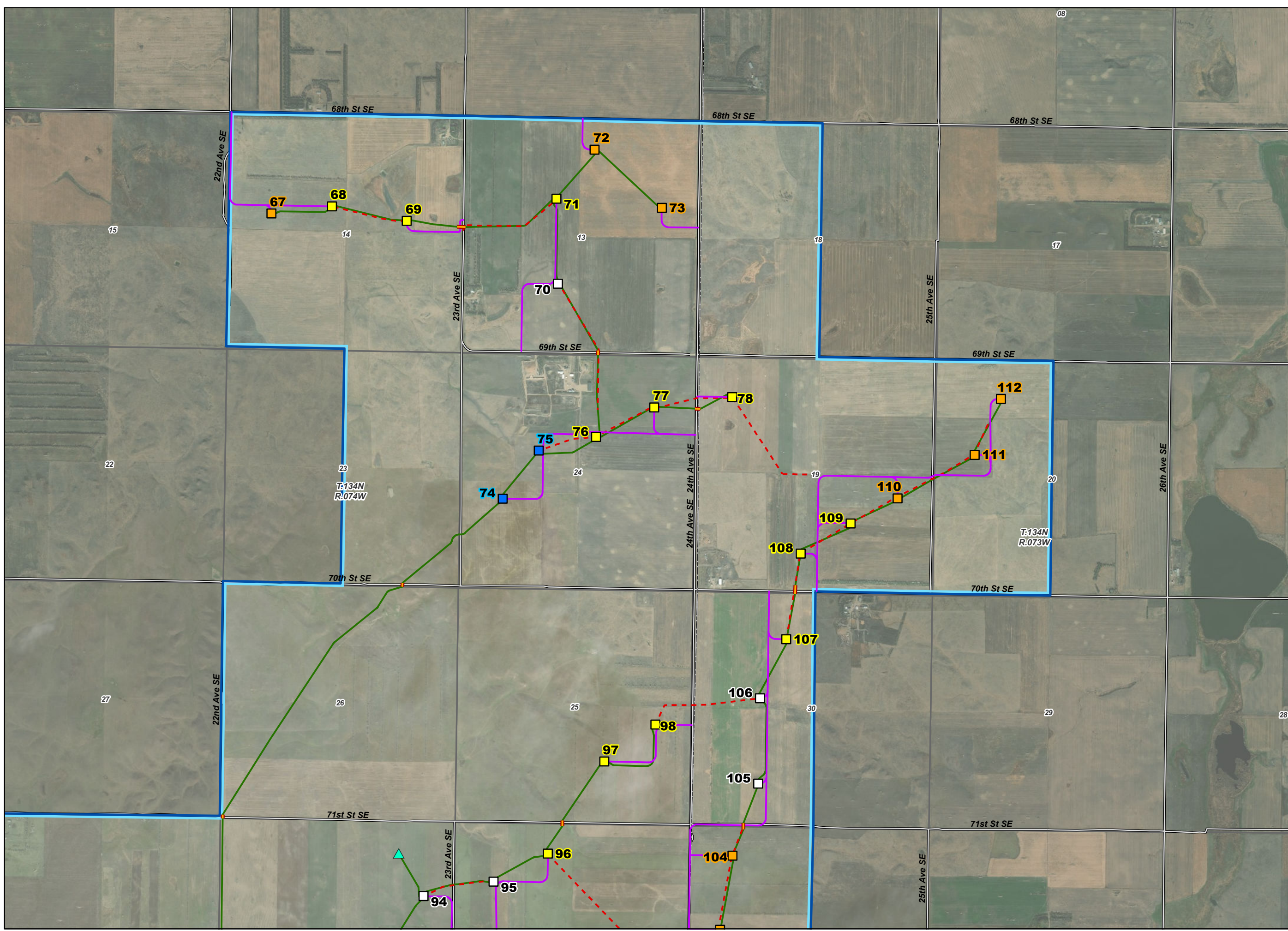
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**LEGEND**

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- Existing Road

**Project Features**

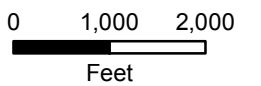
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  - Crane Path
  - Emmons-Logan Wind Energy Center Project Area



Map 5 of 6



Project Location



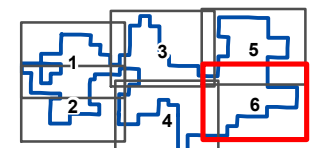
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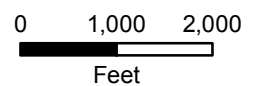
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Map 6 of 6



Project Location



**Attachment 3  
Sheet 6 of 6  
Modified Energy  
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