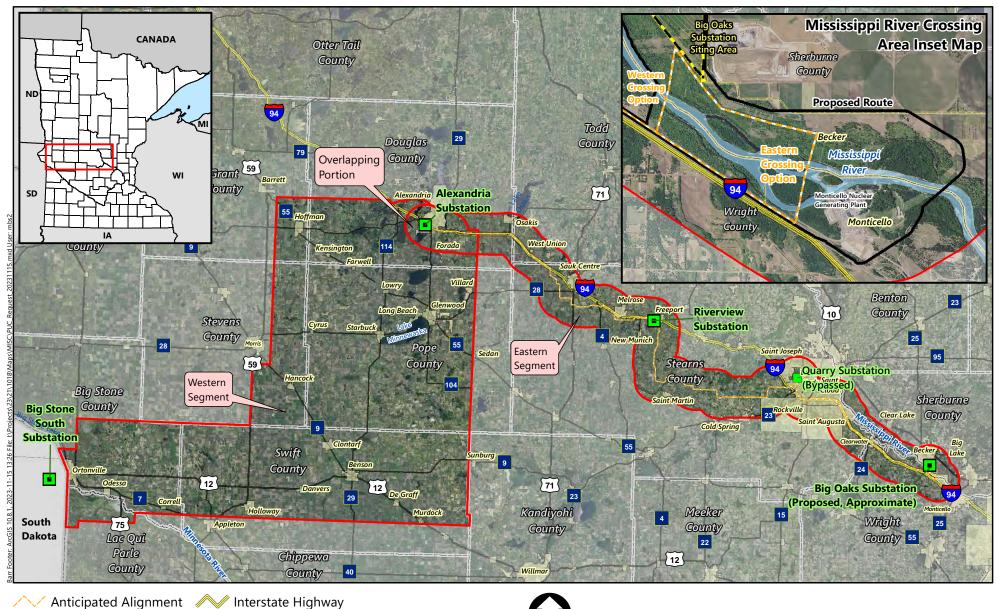
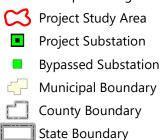
APPENDIX B: Maps

Map 1: Project Overview





Interstate Highway

US Highway

State Highway

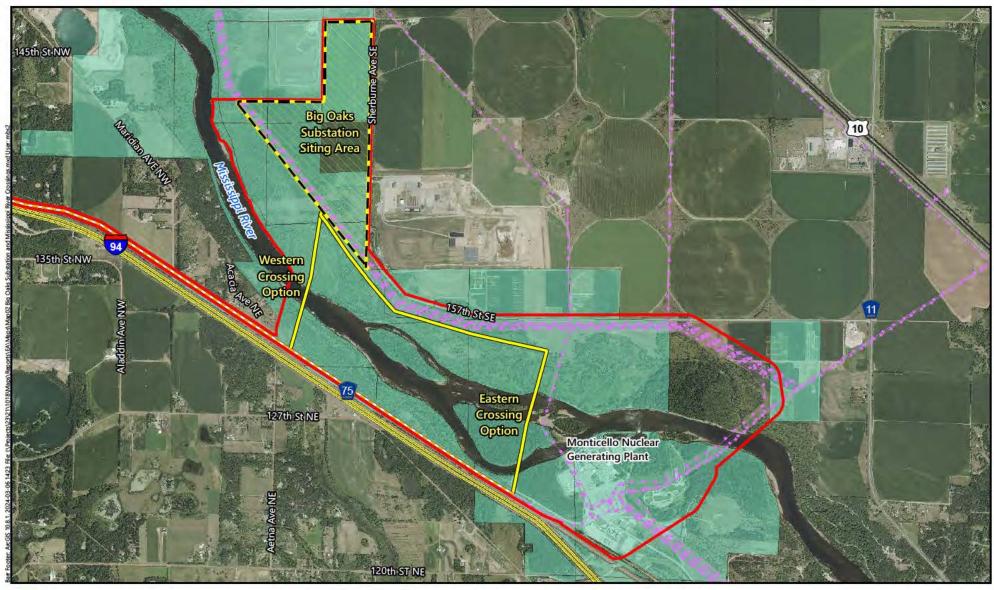
County State-Aid Highway



PROJECT OVERVIEW MAP

BIG STONE SOUTH TO ALEXANDRIA
AND ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Certificate of Need Application

Map 2A: River Crossings Overview (Western and Eastern Options)





Anticipated Alignment (Existing)

Anticipated Alignment (New Build)

Existing High-Voltage
Transmission Line

Utility-Owned Parcel



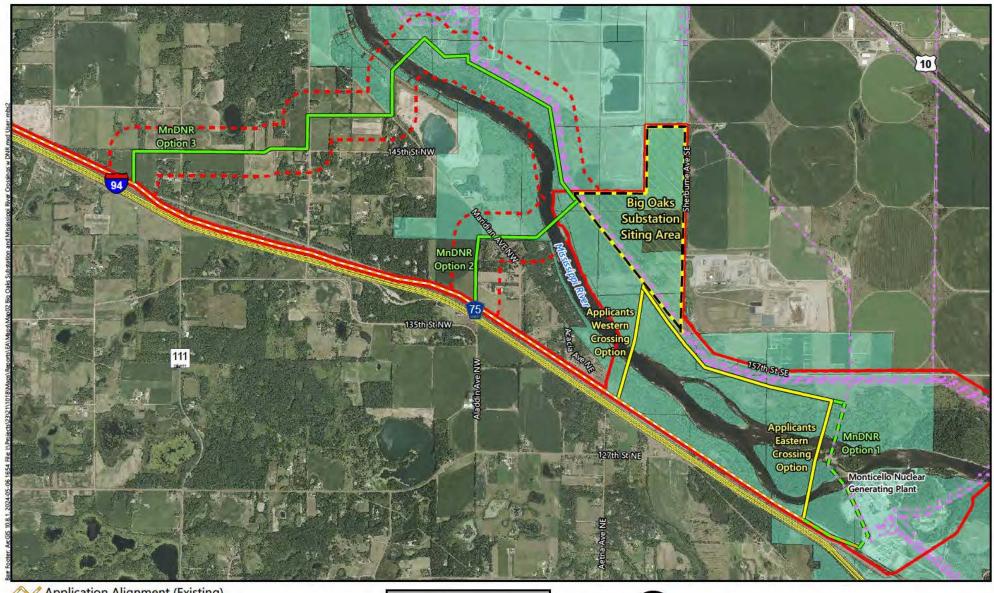


Feet 2,500

BIG OAKS SUBSTATION AND MISSISSIPPI RIVER CROSSINGS

ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

Map 2B: River Crossings Overview (with DNR Alternatives)





Proposed Mississippi Crossing Option (New Build)

♦ MnDNR Mississippi Crossing Option (Rebuild/Expand)

MnDNR Mississippi Crossing Option (Existing)

MnDNR Mississippi Crossing Option (New Build)

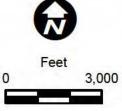
Proposed Route

MnDNR Option Route

Existing High-Voltage Transmission Line

Utility-Owned Parcel

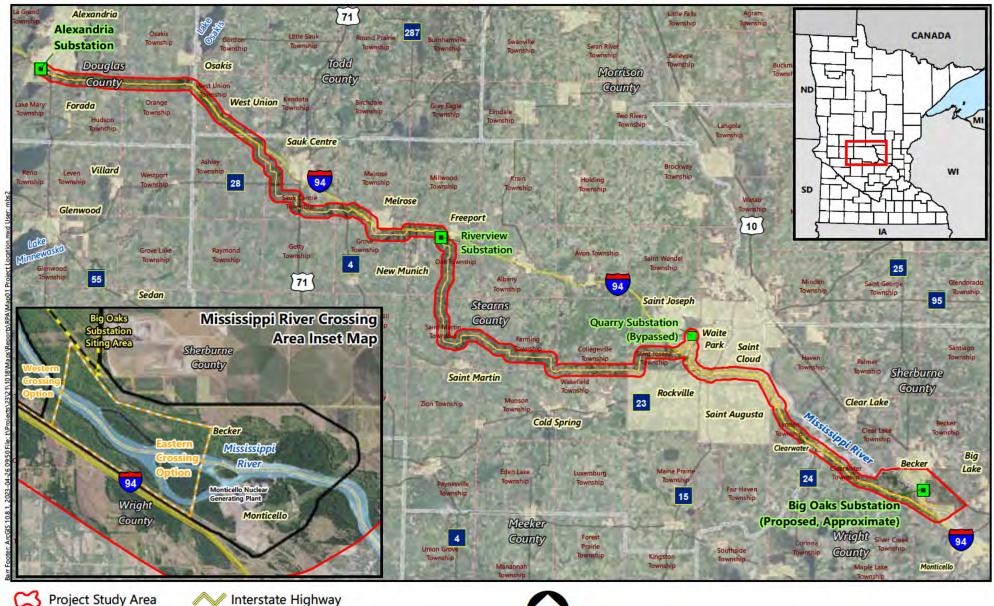


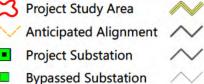


BIG OAKS SUBSTATION AND MISSISSIPPI RIVER CROSSINGS

ALEXANDRIA TO BIG OAKS MISO LRTP-2 Environmental Assessment

Map 3: East Segment Overview





US Highway

State Highway

County State-Aid Highway

Municipal Boundary

Civil Township
County Boundary
State Boundary

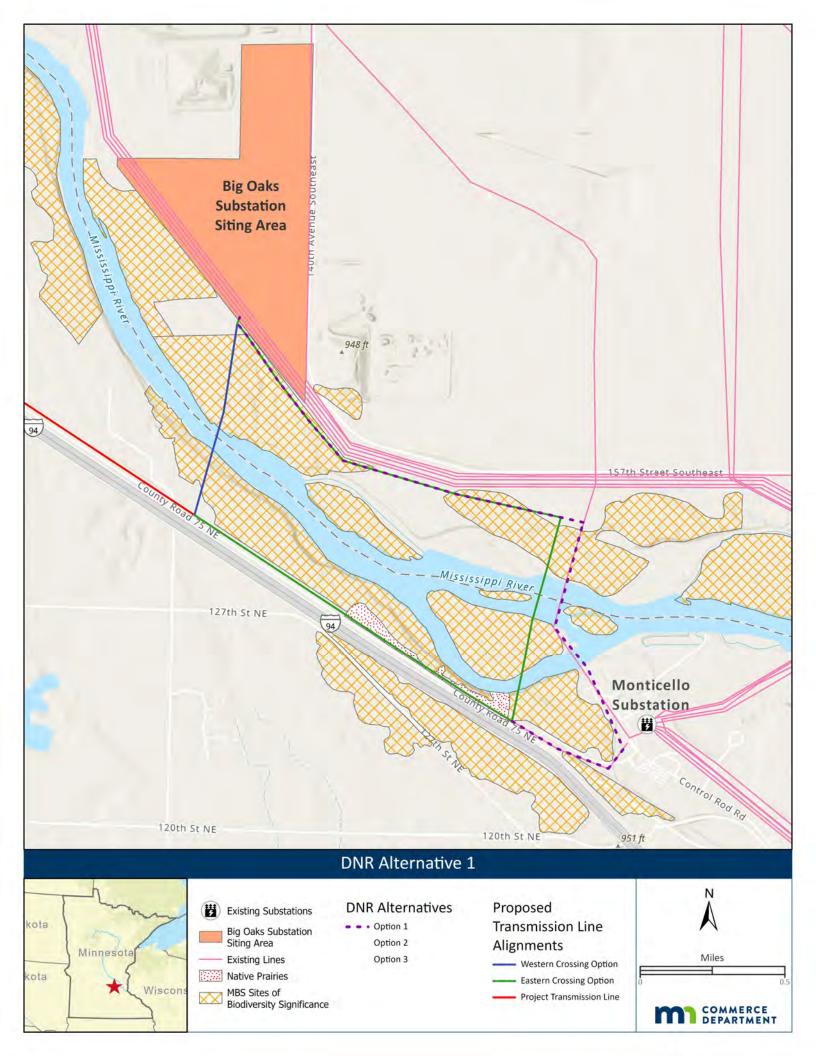


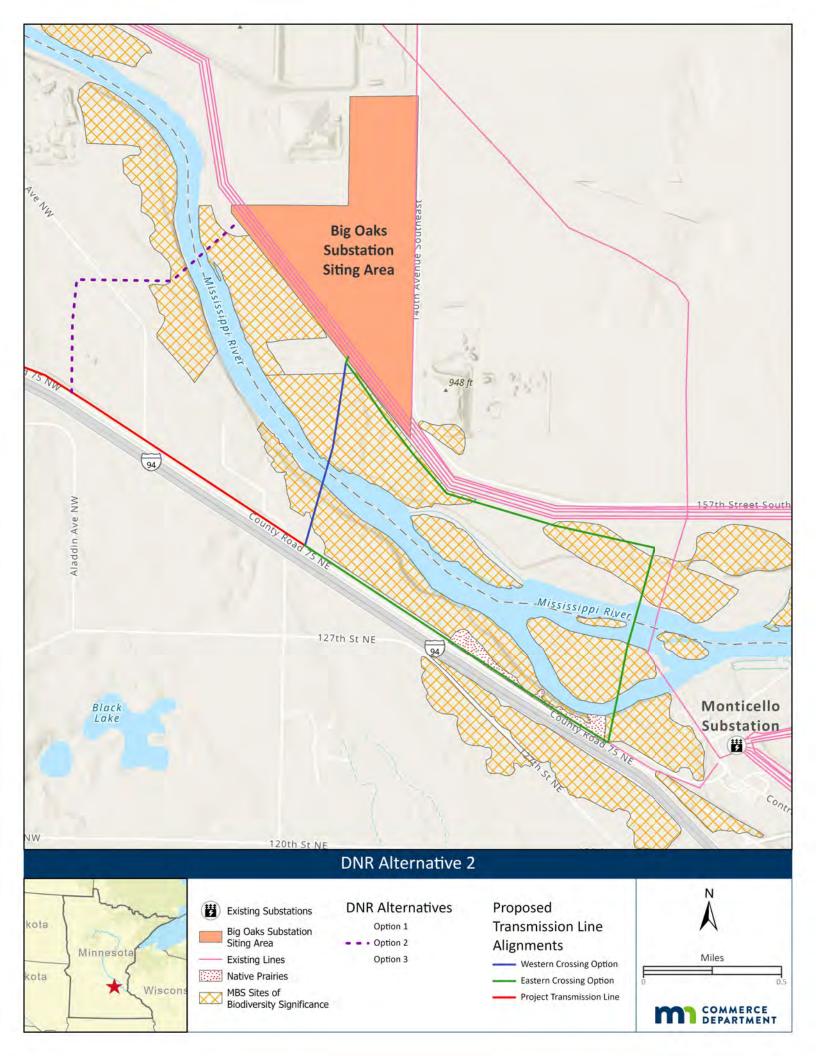
PROJECT LOCATION

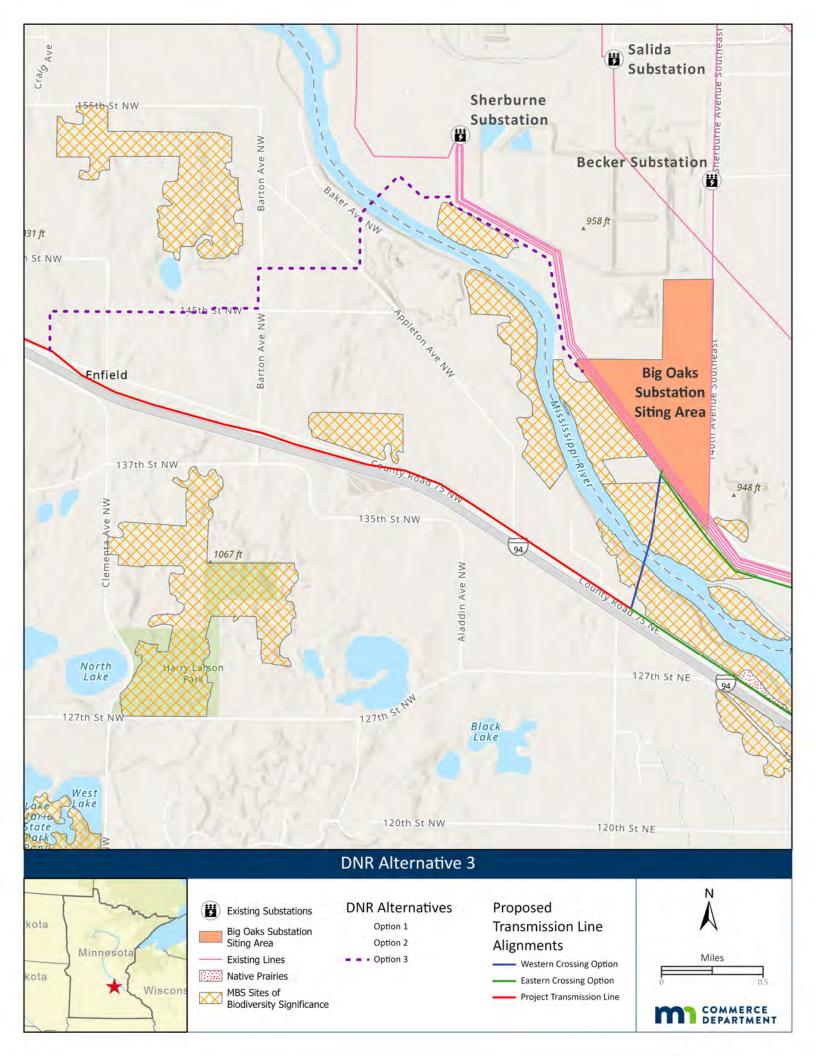
ALEXANDRIA TO BIG OAKS

MISO LRTP-2 Route Permit Application

Maps 4A- 4C: DNR Alternatives 1-3







Map 5A: Alexandria Substation Detail





Anticipated Alignment (Existing)



Anticipated Alignment (New Build)



Existing High-Voltage Transmission Line



Preliminary Substation Footprint Expansion

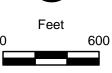


Proposed Right-of-Way



Proposed Route



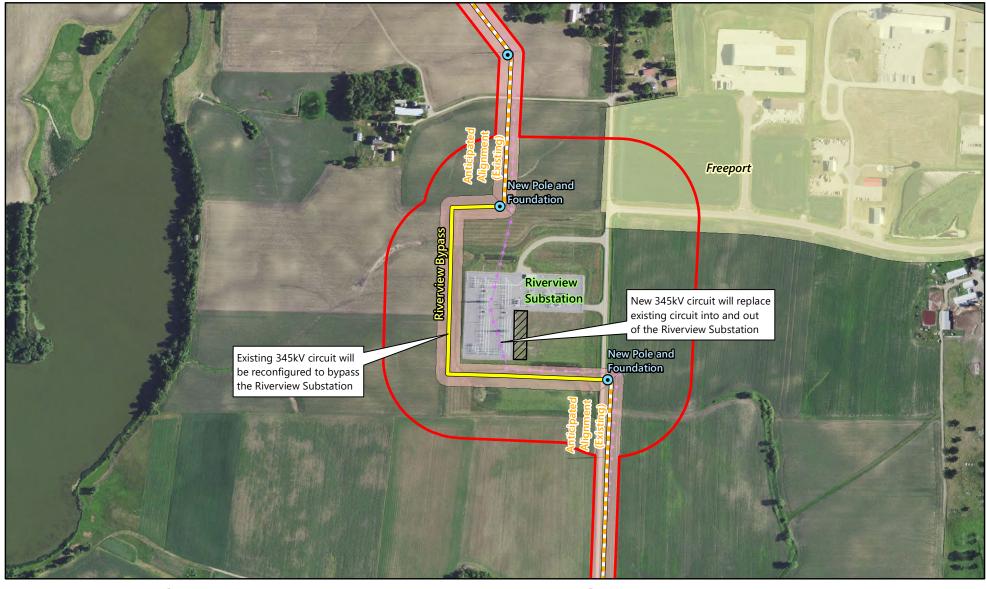


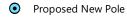
Map 5A

ALEXANDRIA SUBSTATION

ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

Map 5B: Riverview Substation Bypass Detail



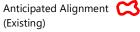


Proposed Right-of-Way

Proposed Route



(Existing)





Anticipated Alignment (New Build)



Existing High-Voltage Transmission Line



Preliminary Substation Footprint Expansion

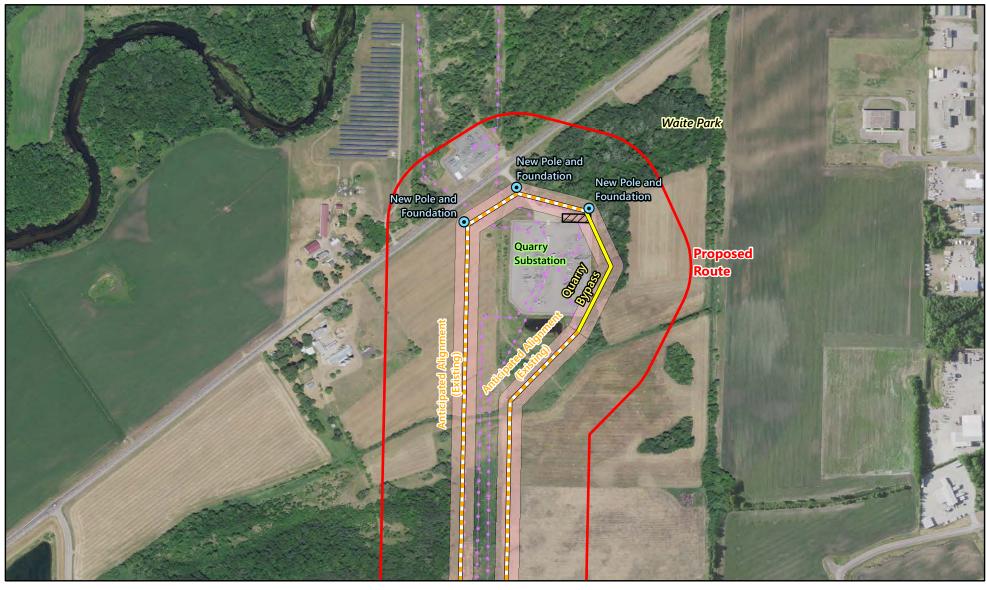


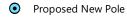
Feet 600

Map 5B

RIVERVIEW SUBSTATION ALEXANDRIA TO BIG OAKS MISO LRTP-2 Environmental Assessment

Map 5C: Quarry Substation Bypass Detail





(New Build)

 \subset

Proposed Right-of-Way

Proposed Route



Anticipated Alignment (Existing)





Existing High-Voltage Transmission Line



Preliminary Substation Footprint Expansion



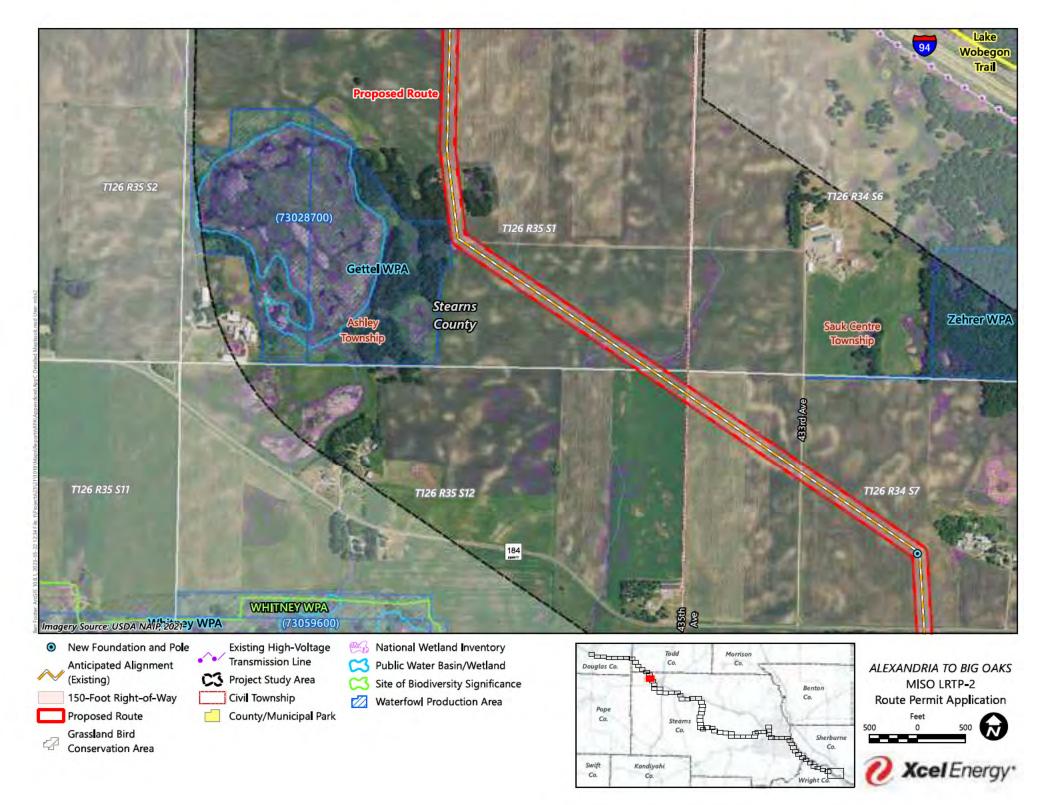
Feet 600

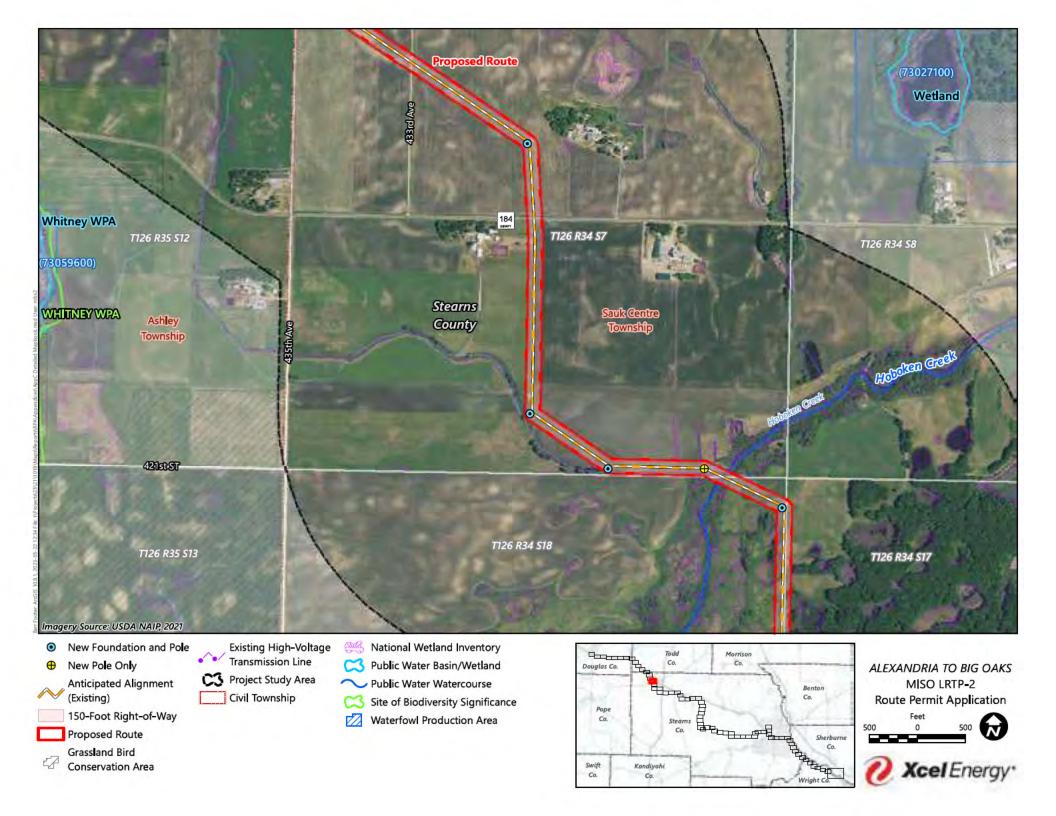
Map 5C

QUARRY SUBSTATION

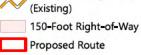
ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

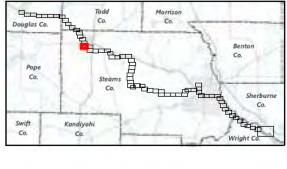
Map 6A-6EE: New Foundation and Pole Locations

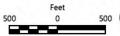




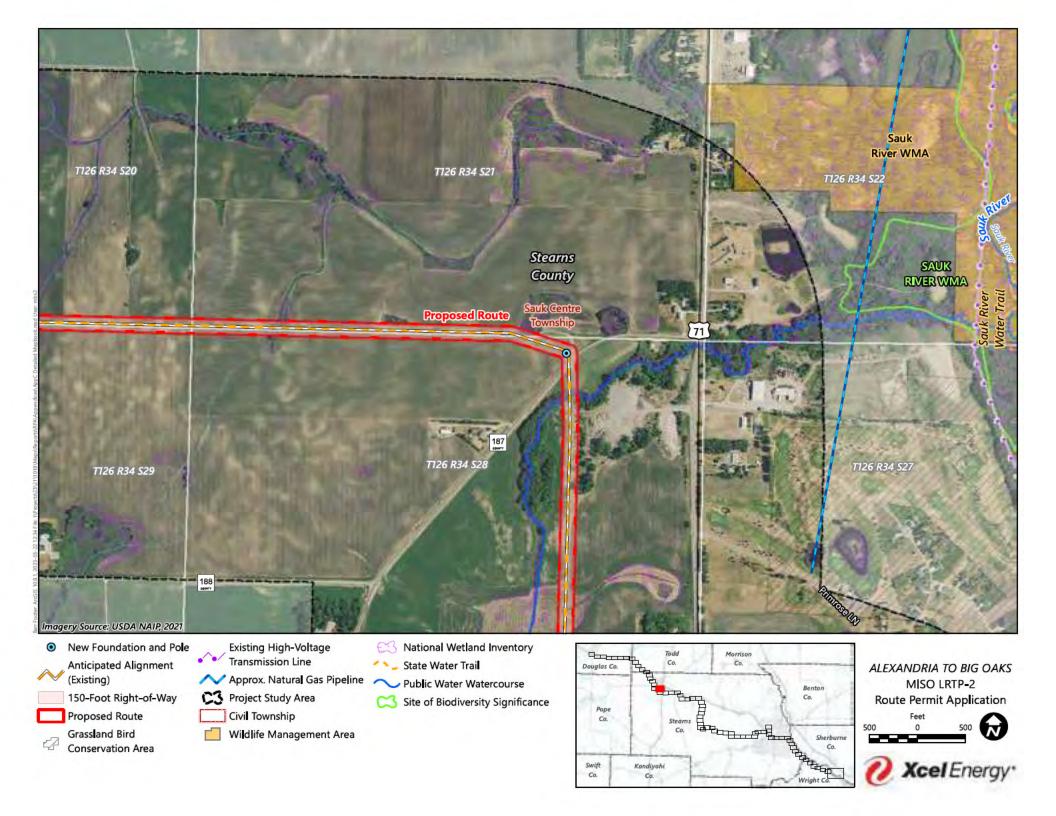










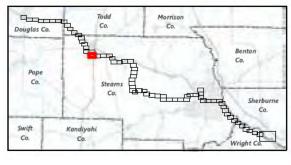




Proposed Route

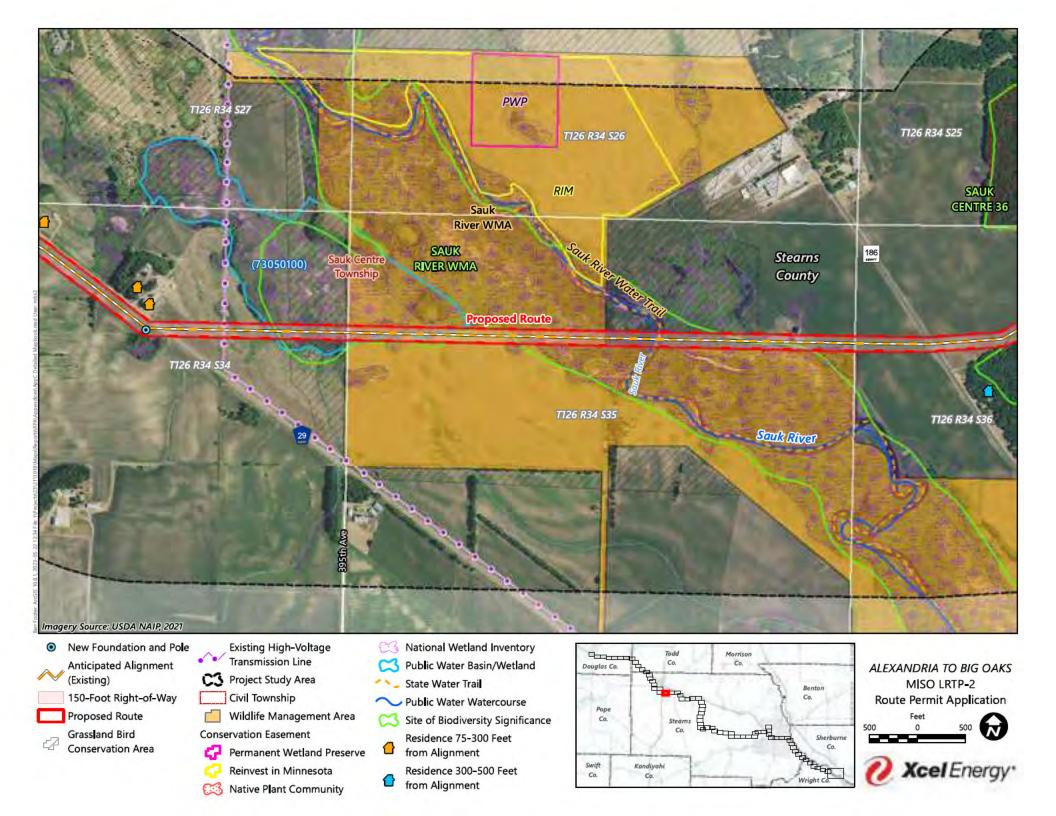
Grassland Bird Conservation Area

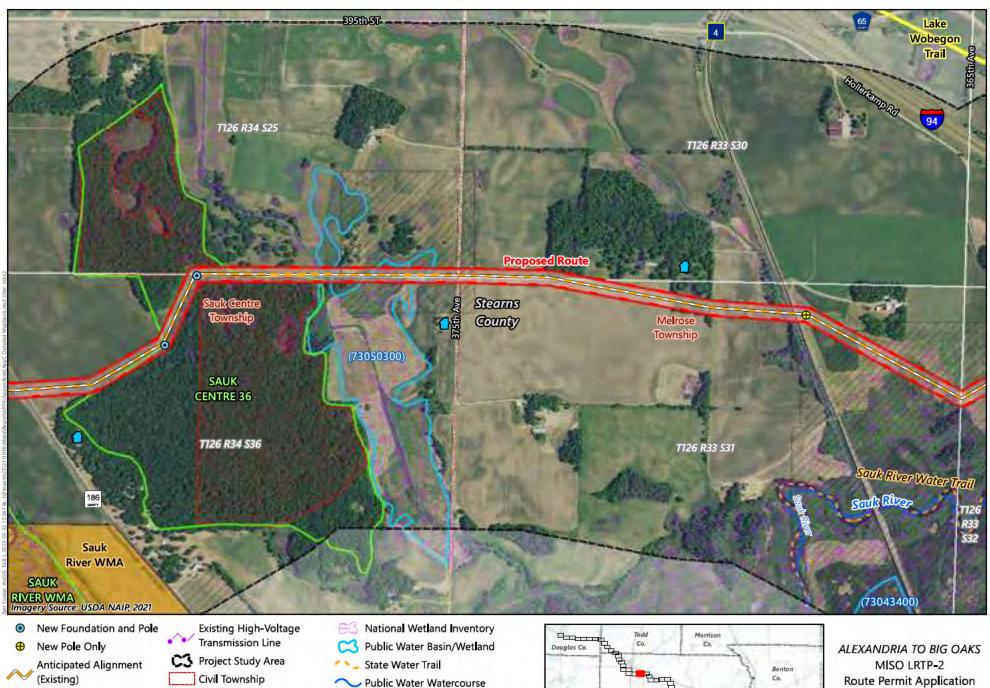
Residence 75-300 Feet from Alignment











150-Foot Right-of-Way

Proposed Route

Grassland Bird Conservation Area

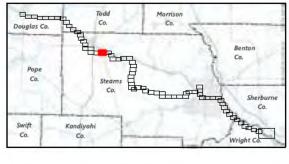
County/Municipal Park

Wildlife Management Area

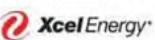
Native Plant Community

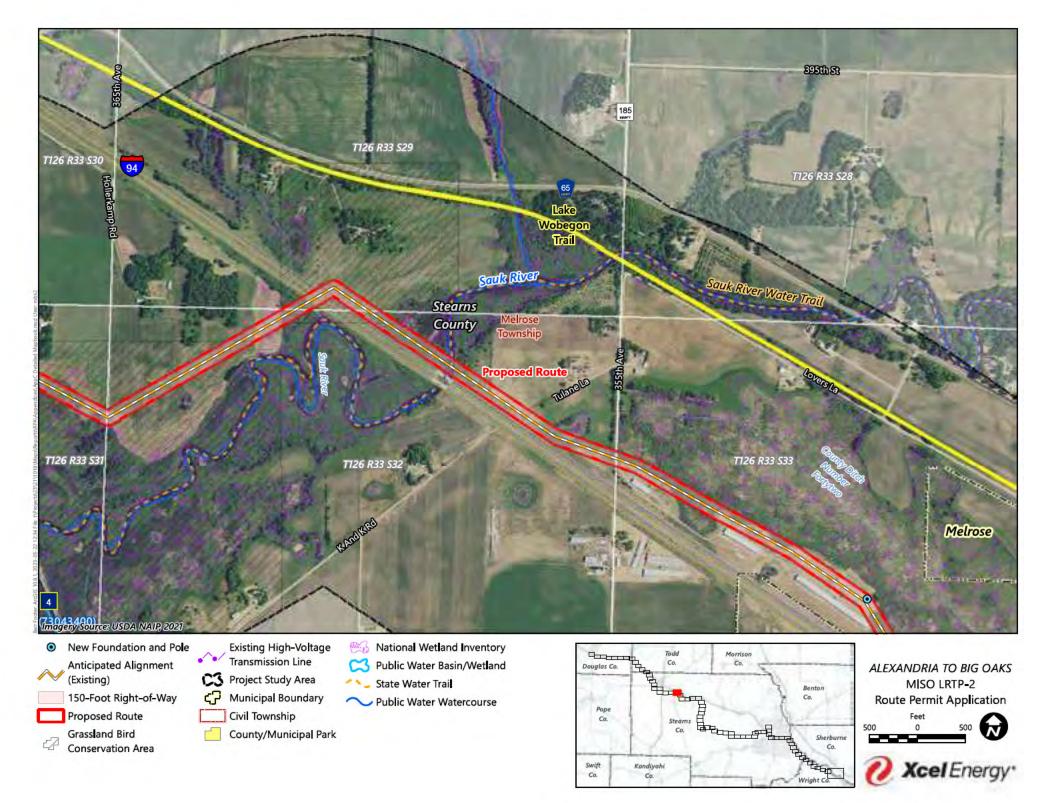
Site of Biodiversity Significance Residence 300-500 Feet

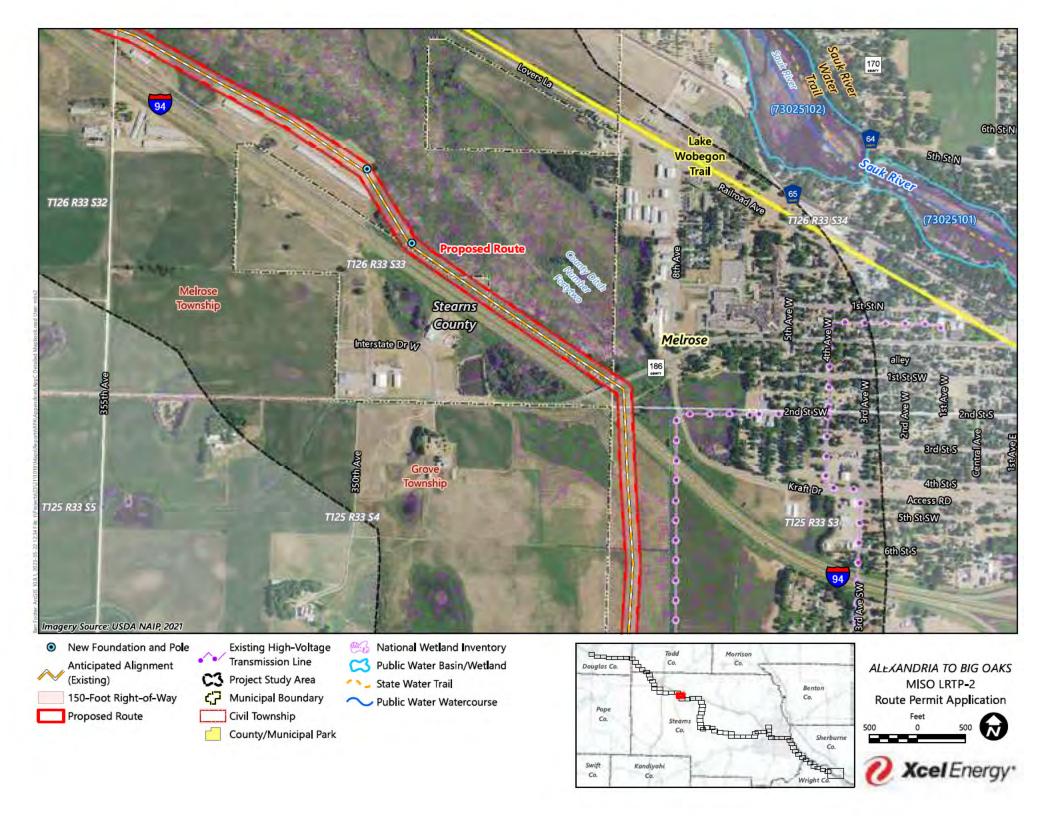
from Alignment

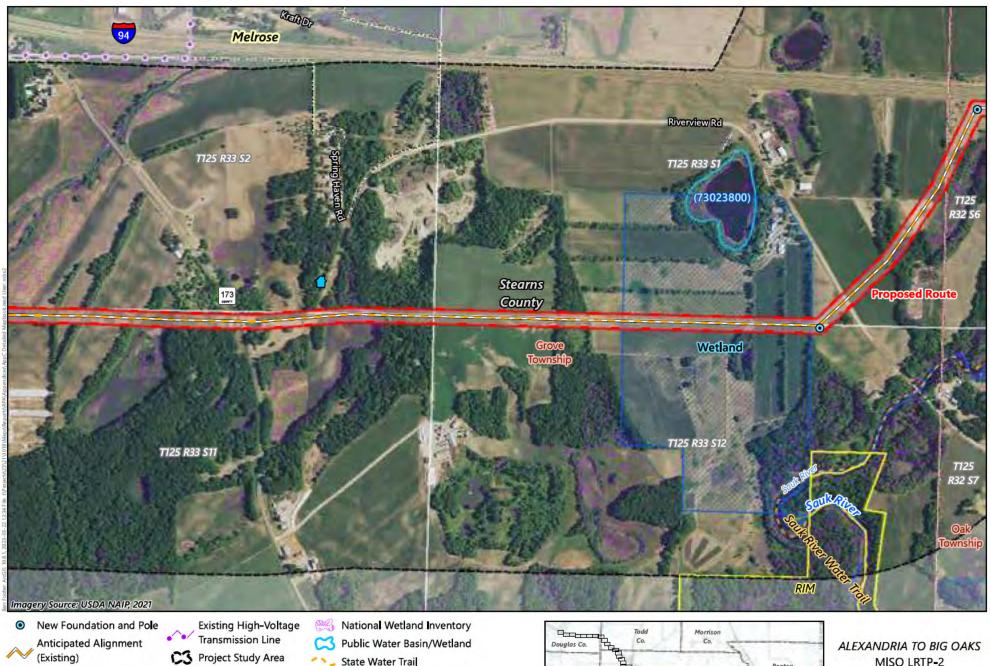


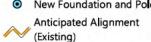












150-Foot Right-of-Way

Proposed Route

Municipal Boundary Civil Township

Conservation Easement

Reinvest in Minnesota

Public Water Watercourse

Waterfow Production Area

Residence 300-500 Feet from Alignment

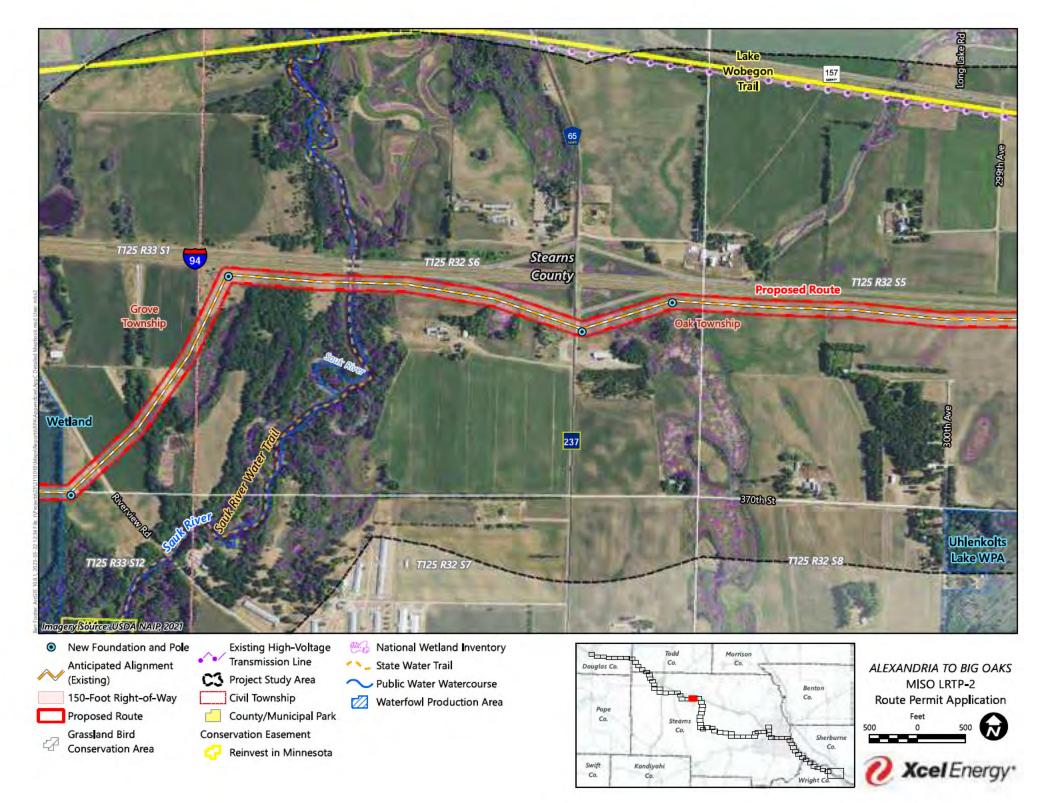


MISO LRTP-2 Route Permit Application











Anticipated Alignment (Existing)

Anticipated Alignment (New Build)

150-Foot Right-of-Way **Preliminary Substation**

Conservation Area

Footprint Expansion

Proposed Route

Grassland Bird

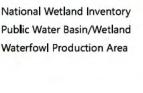
Transmission Line

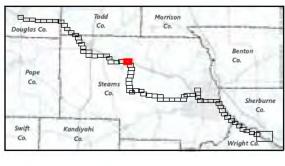
Approx. Natural Gas Pipeline

Project Study Area

Municipal Boundary

Civil Township County/Municipal Park





ALEXANDRIA TO BIG OAKS MISO LRTP-2 Route Permit Application







(Existing)

Anticipated Alignment (New Build)

150-Foot Right-of-Way **Preliminary Substation** Footprint Expansion

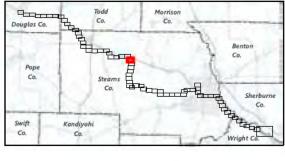
Proposed Route

Project Study Area

Municipal Boundary

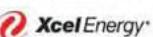
Civil Township

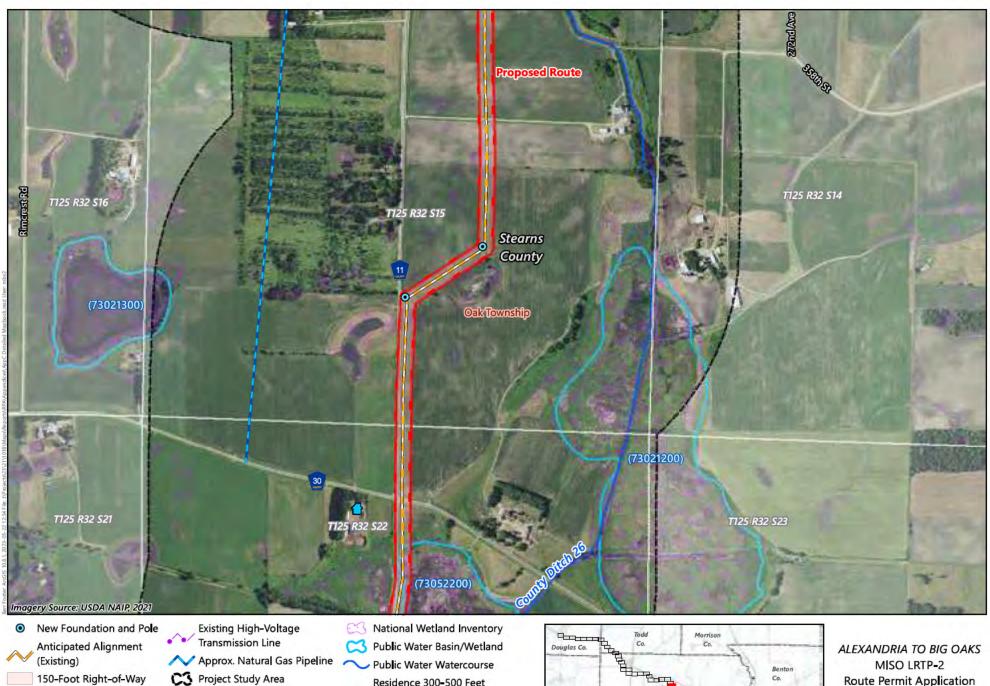


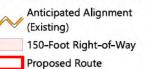


ALEXANDRIA TO BIG OAKS MISO LRTP-2 Route Permit Application



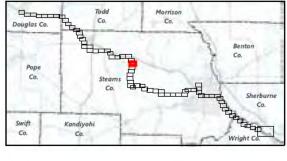






Civil Township

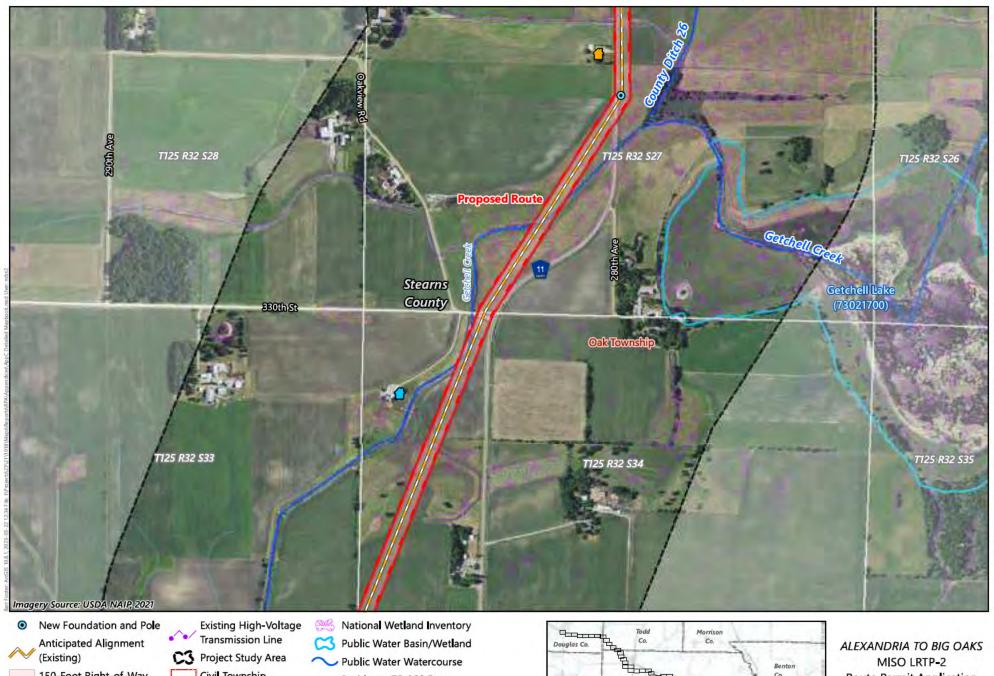
Residence 300-500 Feet from Alignment

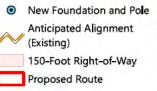


Route Permit Application





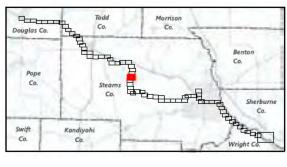




Civil Township

Residence 75-300 Feet from Alignment

Residence 300-500 Feet from Alignment



Route Permit Application







(Existing)

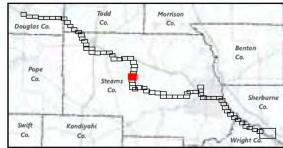
150-Foot Right-of-Way

Proposed Route

Grassland Bird Conservation Area

C3 Project Study Area

Civil Township

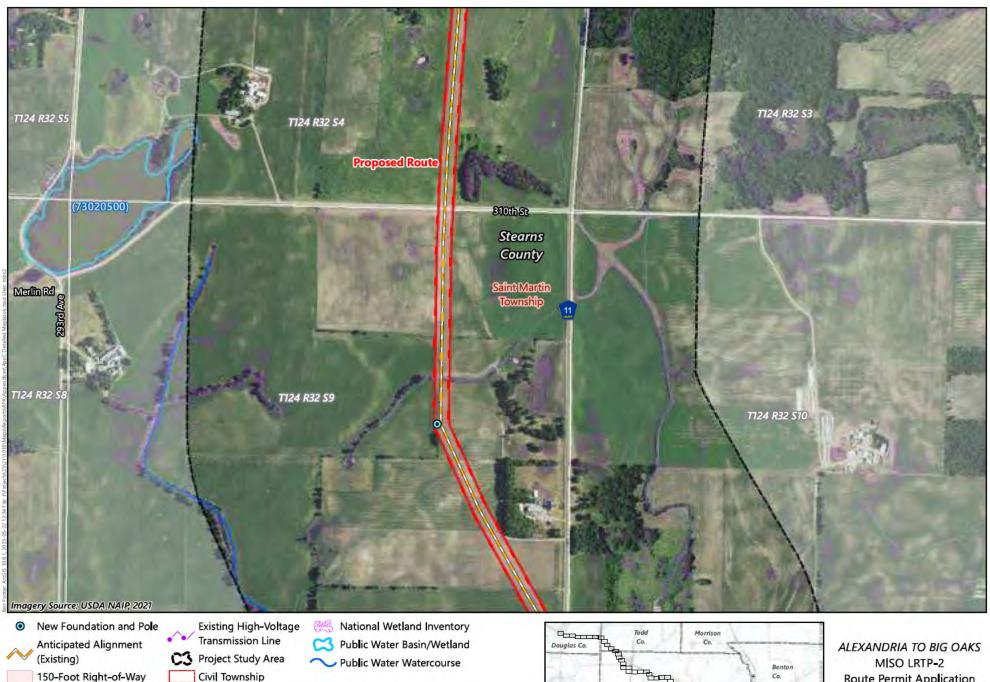


MISO LRTP-2 Route Permit Application











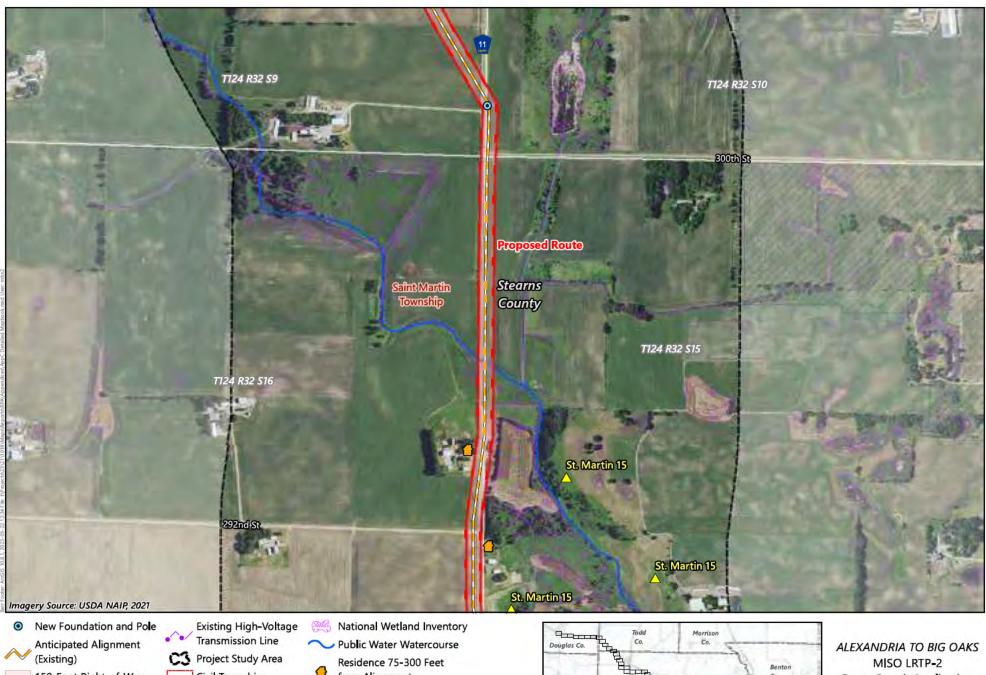
Proposed Route

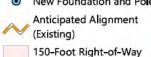
Grassland Bird Conservation Area











Proposed Route

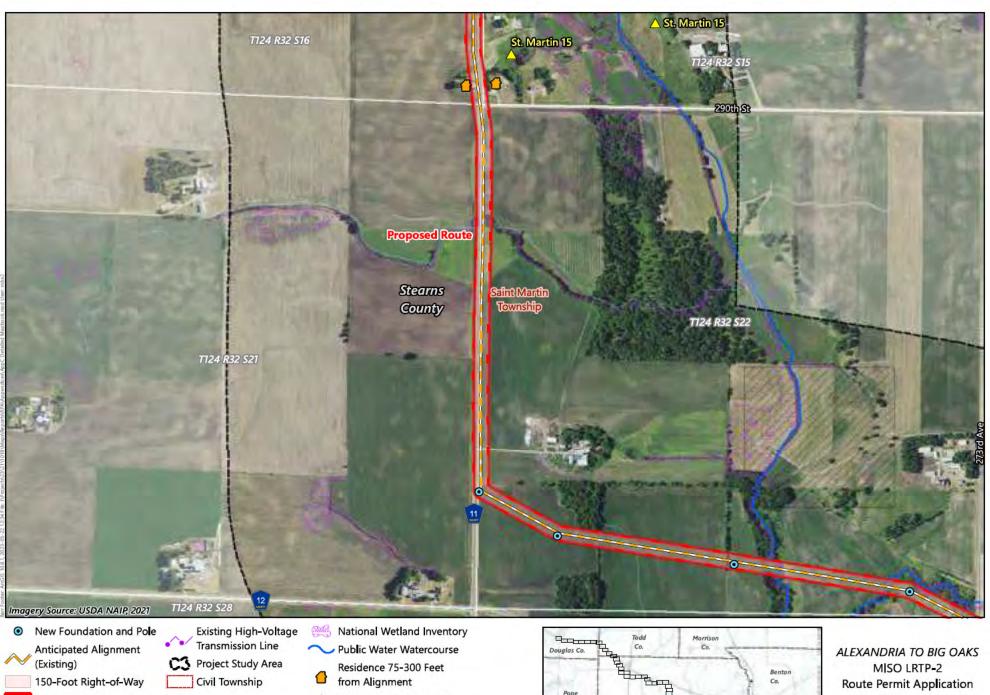
Grassland Bird Conservation Area Civil Township from Alignment

Calcareous Fen Location



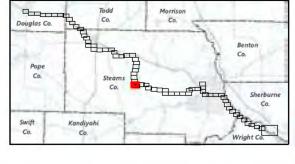






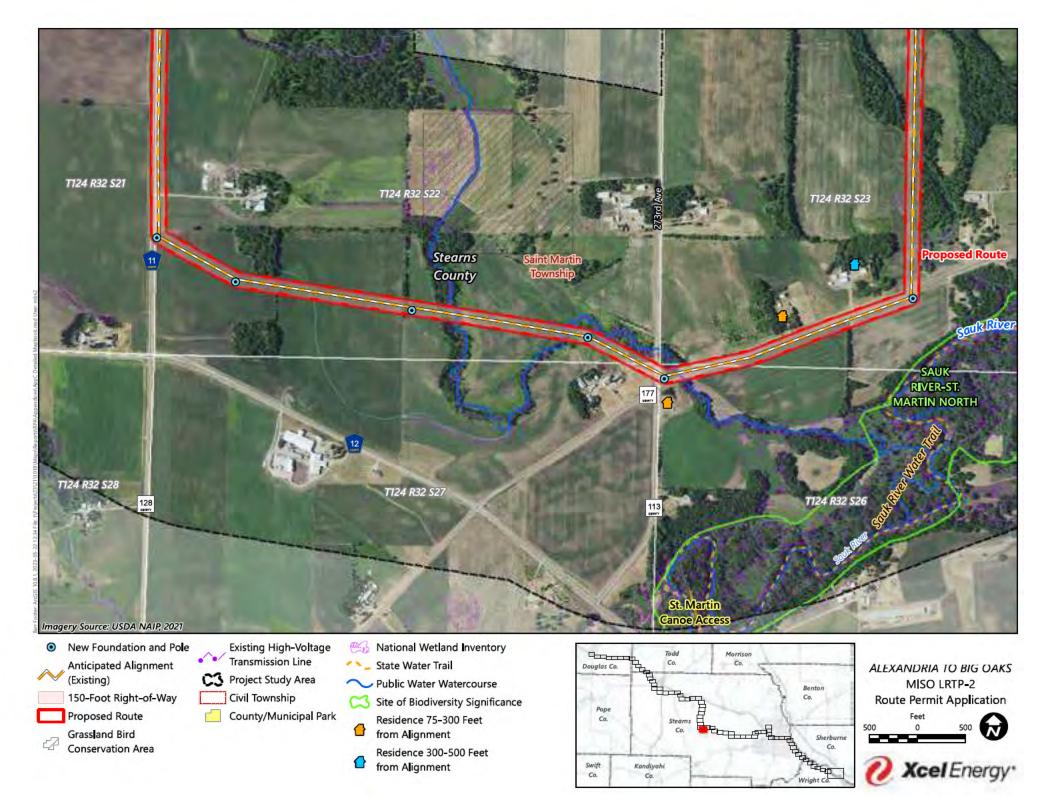


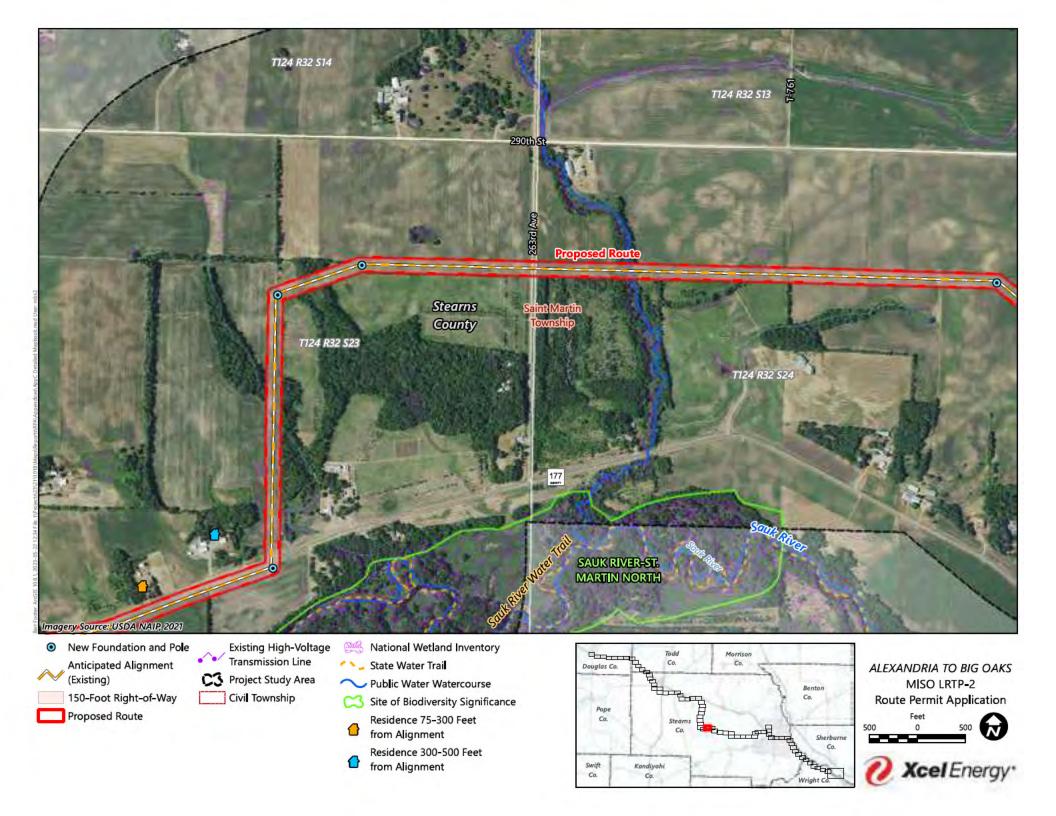
Calcareous Fen Location

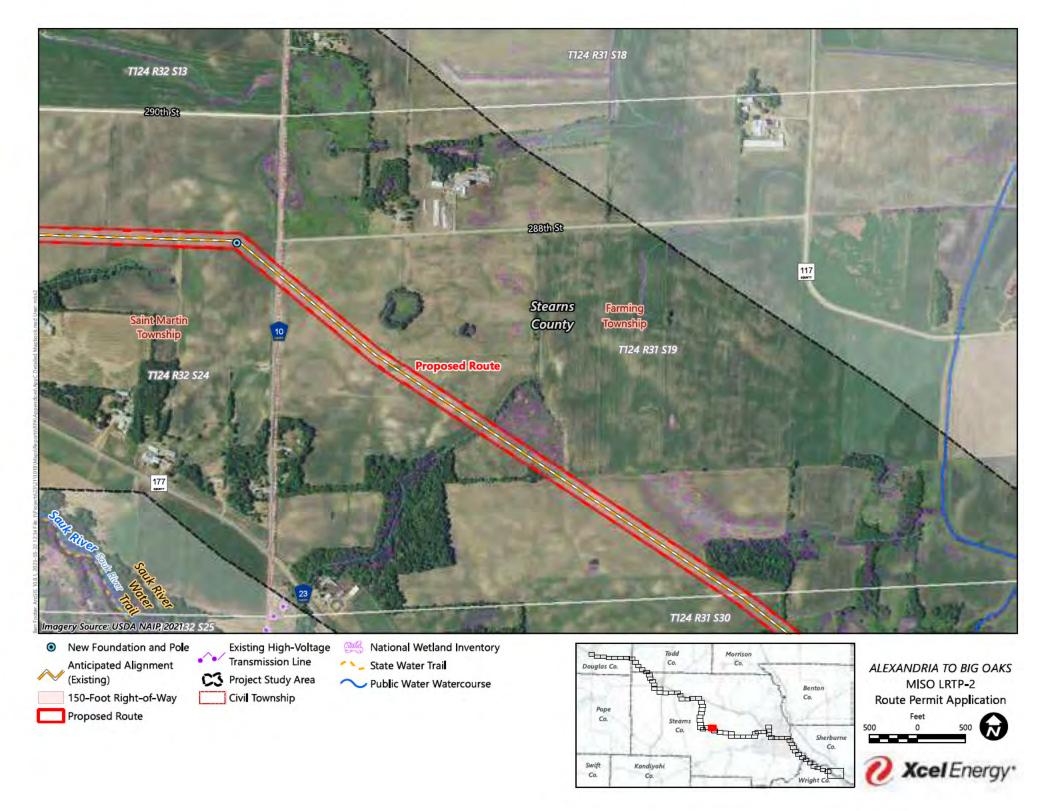






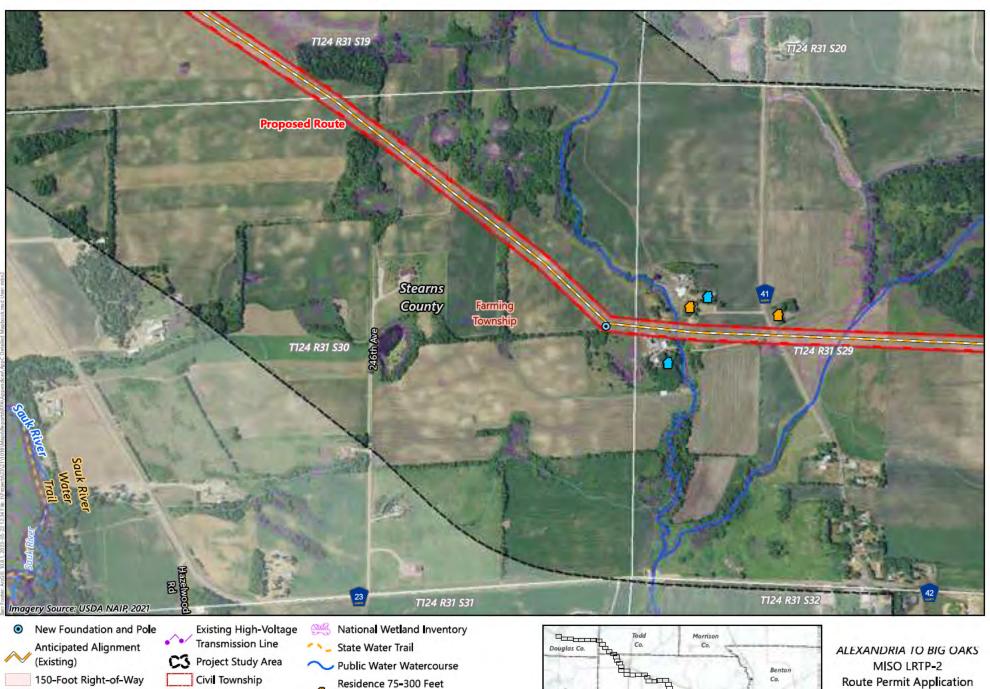


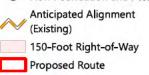




Swift Co.

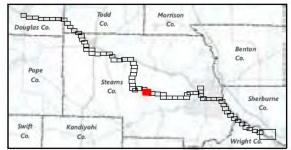
Xcel Energy*



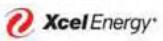


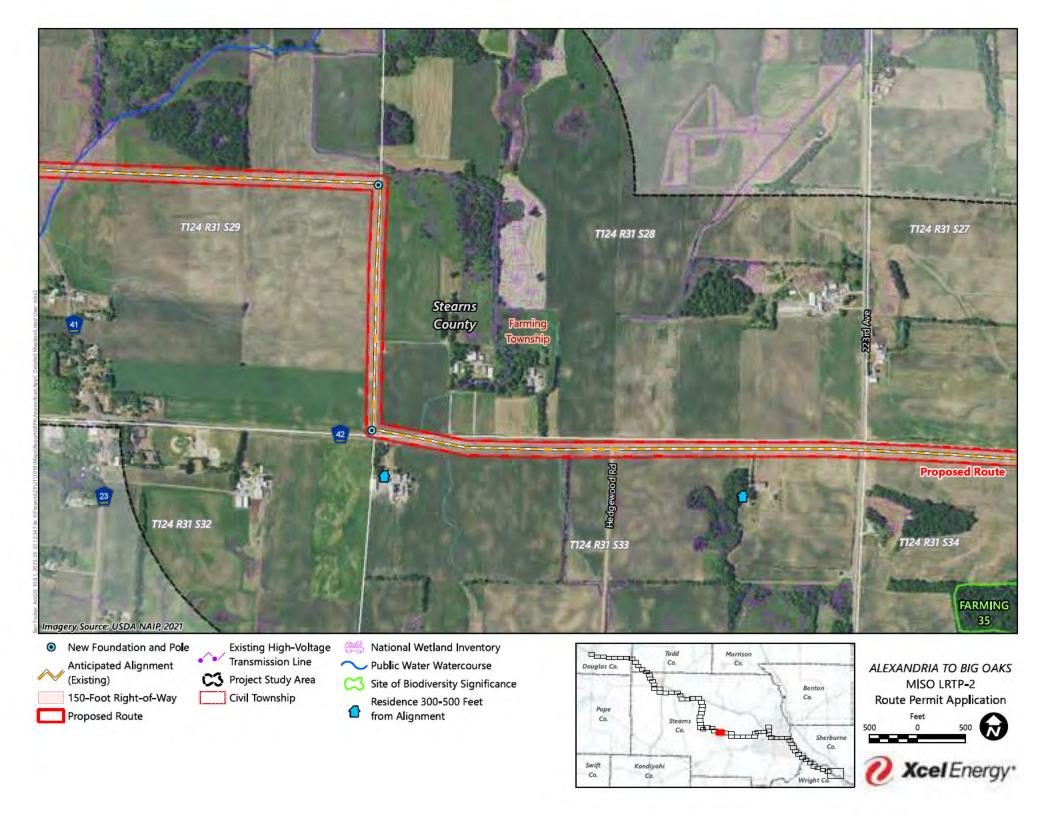
from Alignment

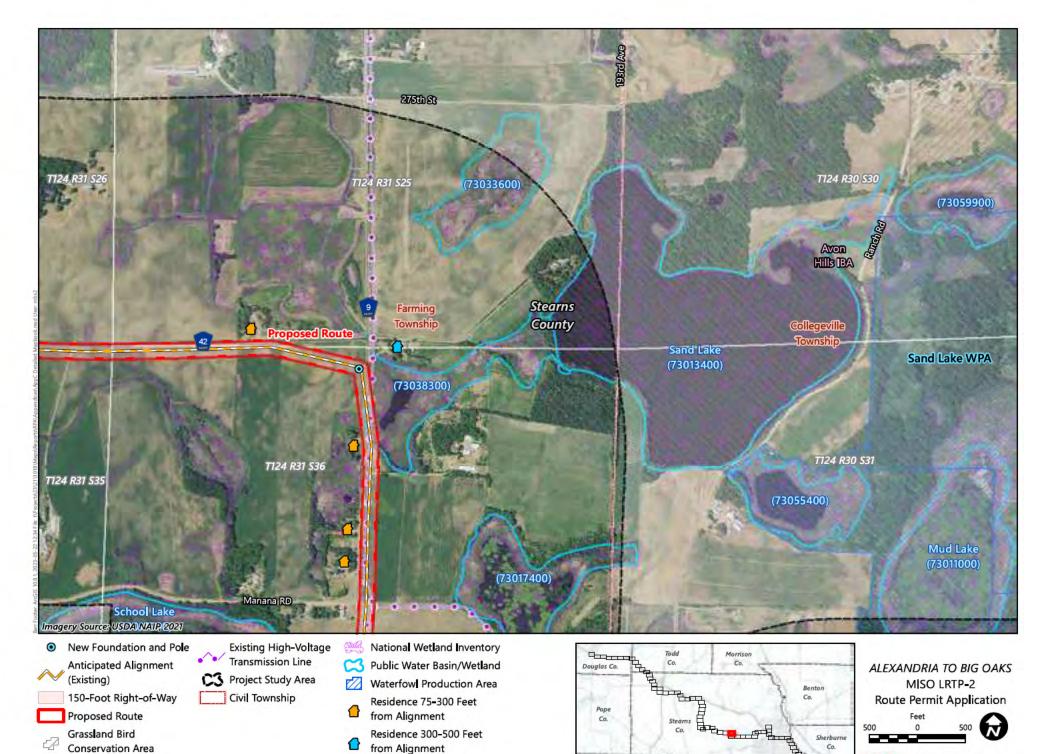
Residence 300-500 Feet from Alignment







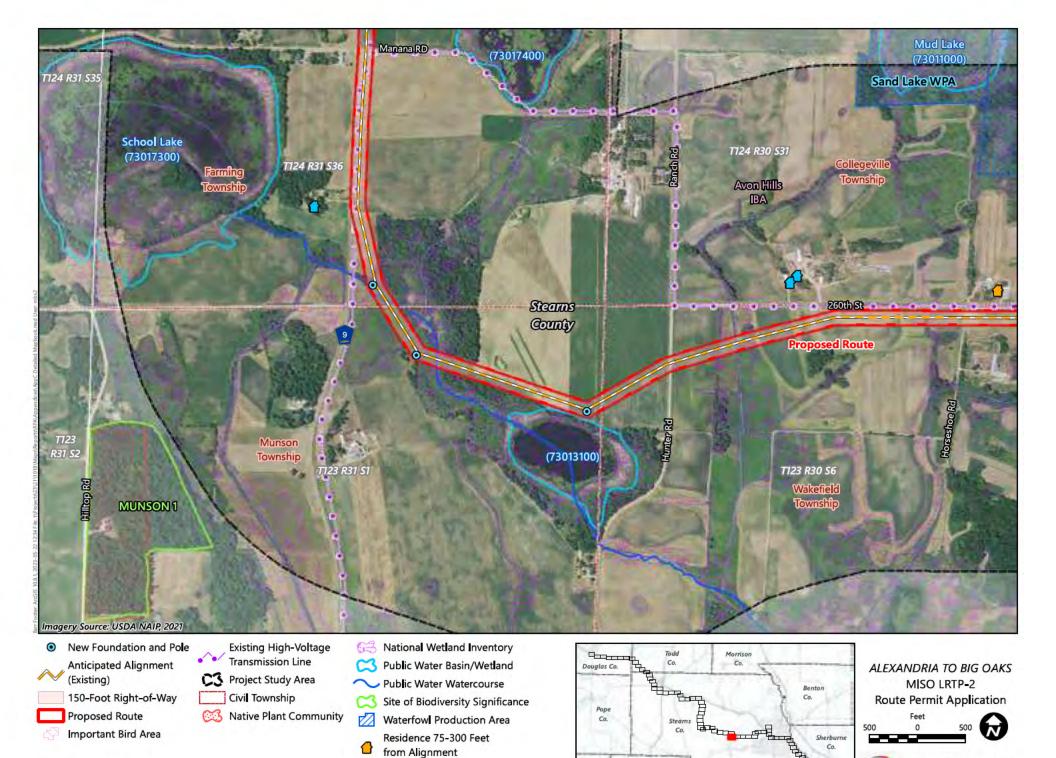




Swift Co.

Important Bird Area

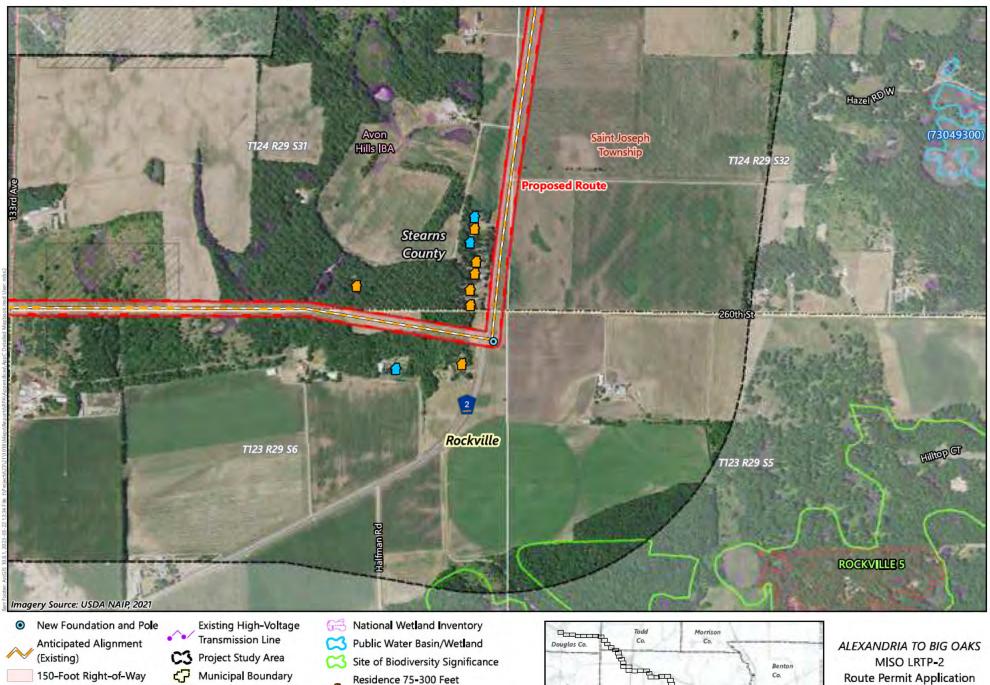
Xcel Energy*



Swift Co.

Residence 300-500 Feet from Alignment

Xcel Energy*



150-Foot Right-of-Way

Proposed Route

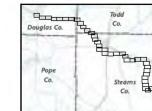
Grassland Bird Conservation Area

Important Bird Area

Municipal Boundary

Civil Township from Alignment

Native Plant Community Residence 300-500 Feet from Alignment

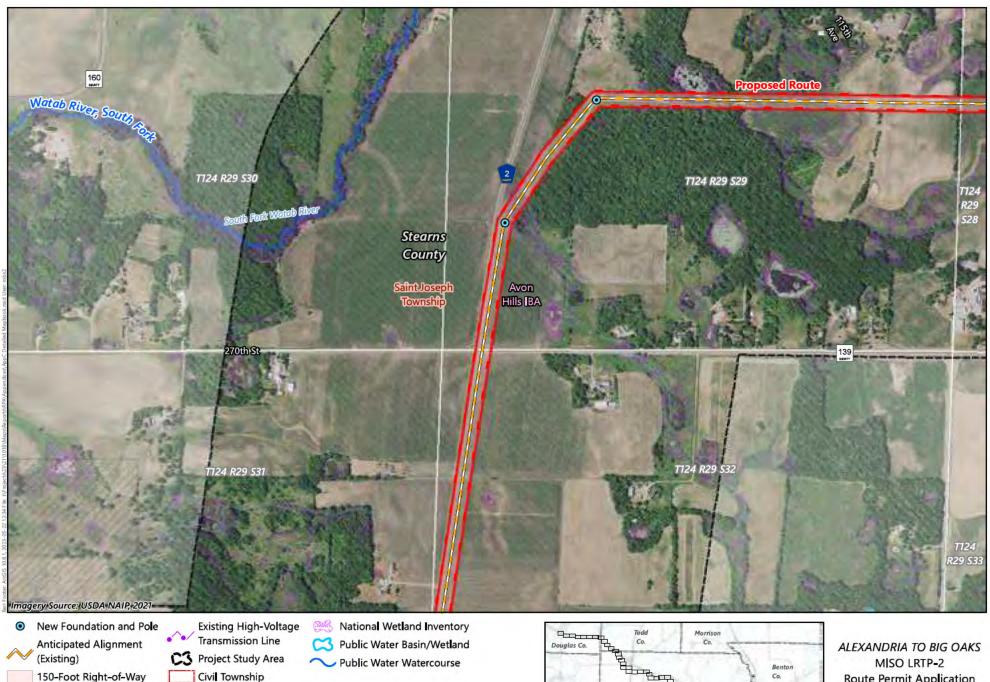


Swift Co.







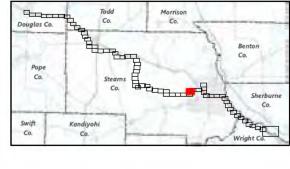


150-Foot Right-of-Way

Proposed Route

Grassland Bird Conservation Area

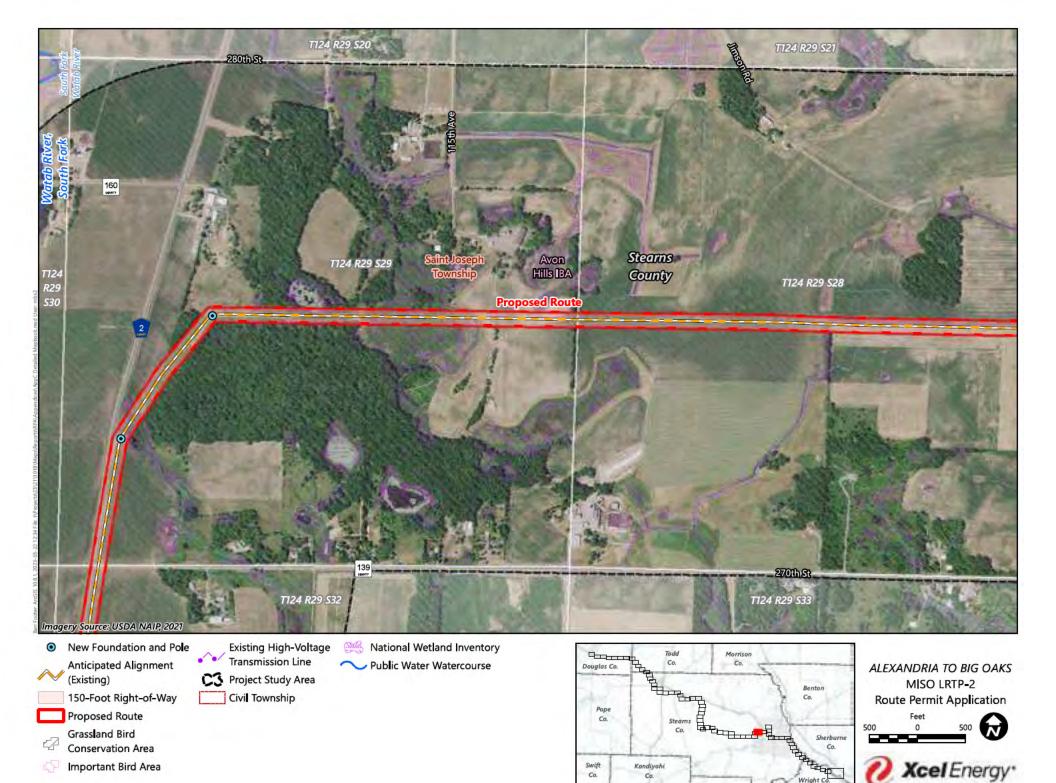
Important Bird Area

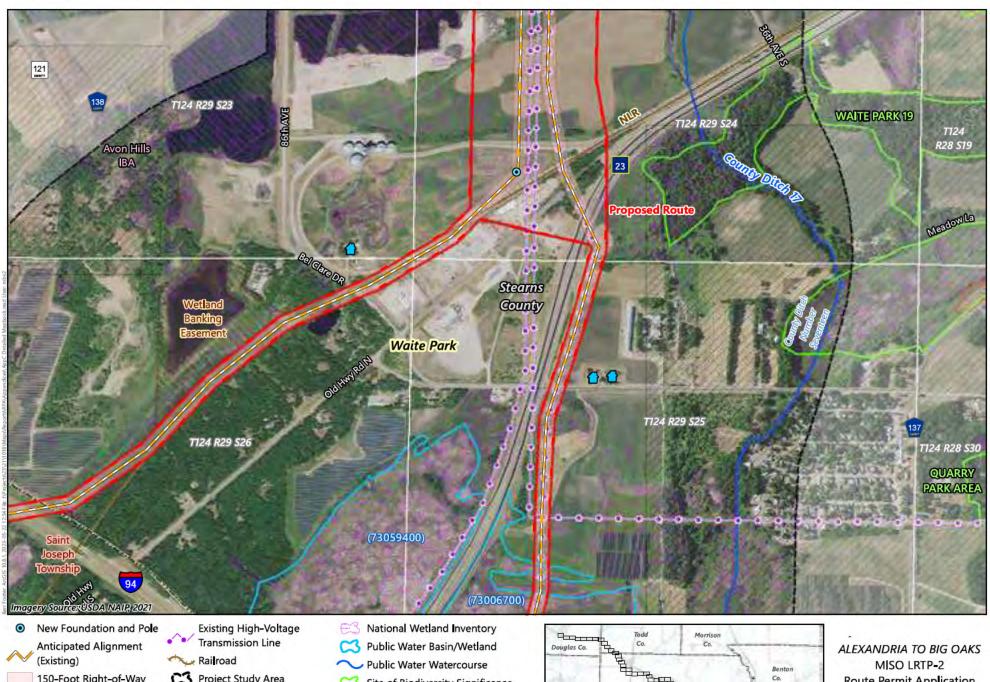












150-Foot Right-of-Way

Proposed Route

Grassland Bird Conservation Area

Important Bird Area

C3 Project Study Area

Municipal Boundary

Civil Township

Wetland Banking Easement

Native Plant Community

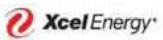
Site of Biodiversity Significance

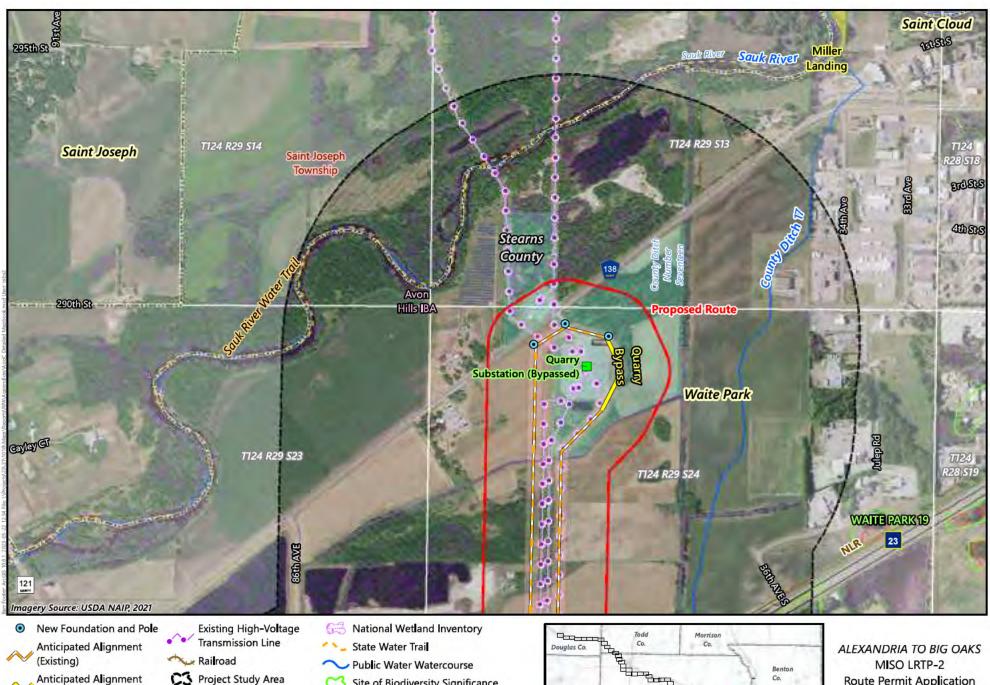
Residence 300-500 Feet from Alignment











Anticipated Alignment (New Build)

150-Foot Right-of-Way **Preliminary Substation Footprint Expansion**

Proposed Route

Xcel-Owned Parcel

Municipal Boundary

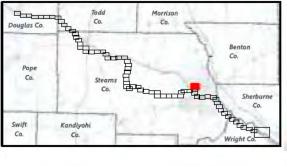
Civil Township County/Municipal Park

Native Plant Community

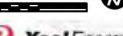
Site of Biodiversity Significance

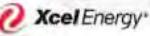
Grassland Bird Conservation Area

Important Bird Area

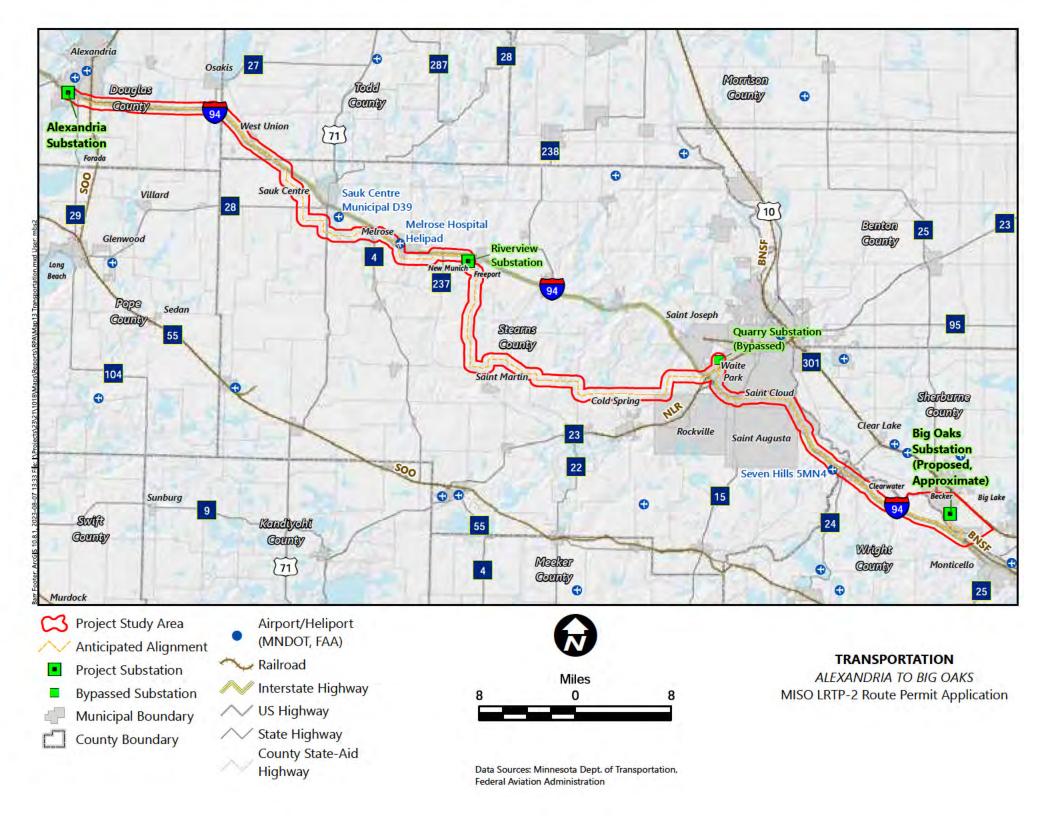




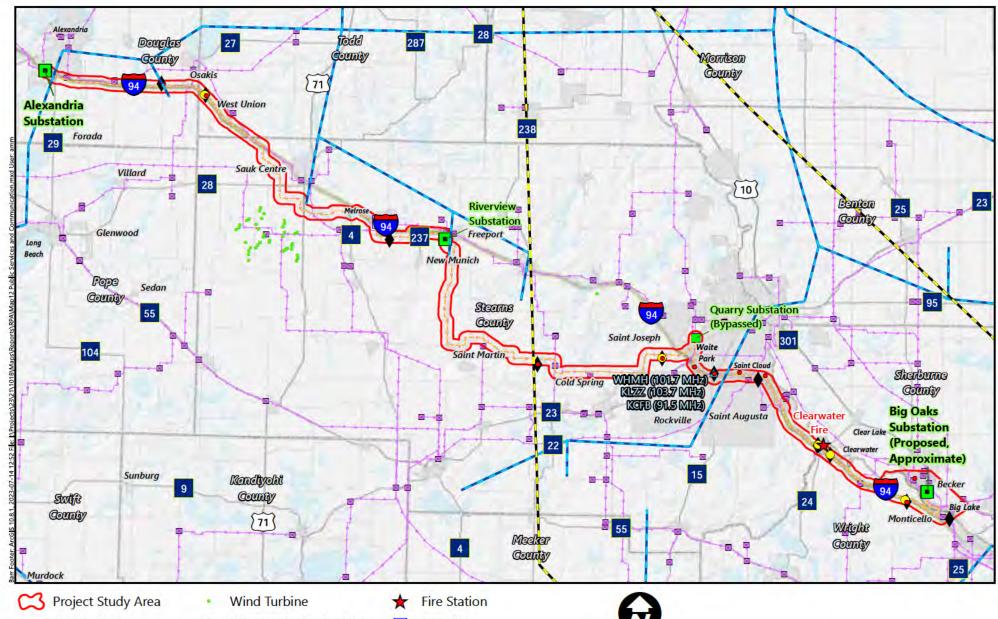


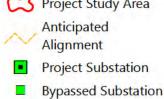


Map 7: Transportation



Map 8: Pipelines and Public Services





- **Existing Substation** Existing High-Voltage Transmission Line
- Microwave Service Site
- **FM Radio Transmitter**
- Cellular Tower
- Antenna Structure

Approx. Underground Pipeline

Crude Oil

Natural Gas



Municipal Boundary

County Boundary

Interstate Highway

US Highway

State Highway

County State-Aid Highway



Miles

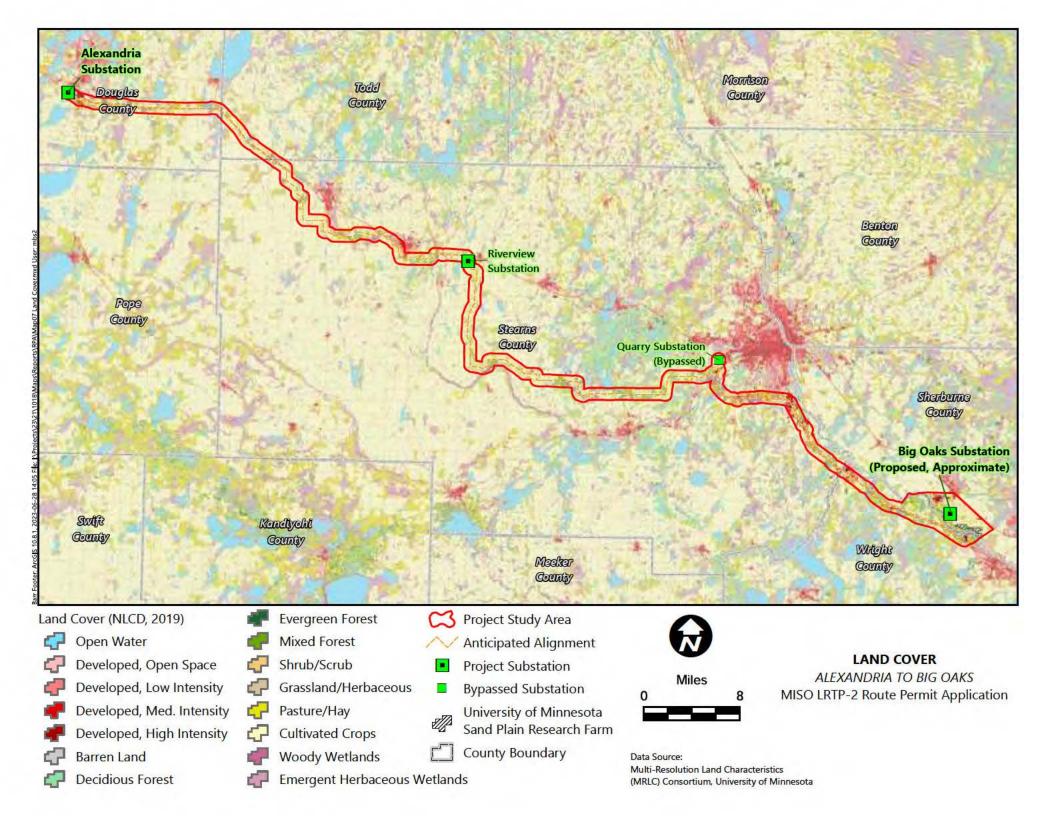
PUBLIC SERVICES AND COMMUNICATION

ALEXANDRIA TO BIG OAKS MISO LRTP-2 Route Permit Application

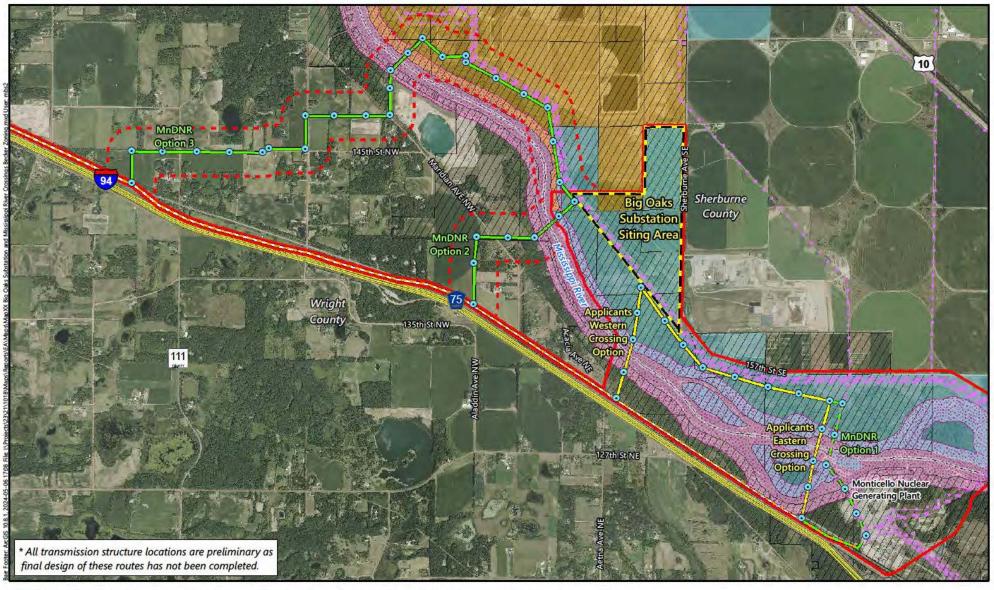
Data Sources:

Minnesota Dept. of Transportation, Minnesota Geospatial Information Office, Federal Aviation Administration (FAA), Federal Communications Commission (FCC)

Map 9: NLCD Land Cover



Map 10: Zoning and Structure Locations at River Crossing





Proposed Mississippi Crossing
Option (New Build)

MnDNR Mississippi Crossing
Option (Rebuild/Expand)

MnDNR Mississippi Crossing
Option (Existing)

MnDNR Mississippi Crossing
Option (New Build)

Proposed New Pole Location*

Proposed Route

MnDNR Option Route

Shoreland District

Industrial 2

Utility-Owned Parcel

City of Becker Zoning District

Agriculture

Existing High-Voltage Transmission Line

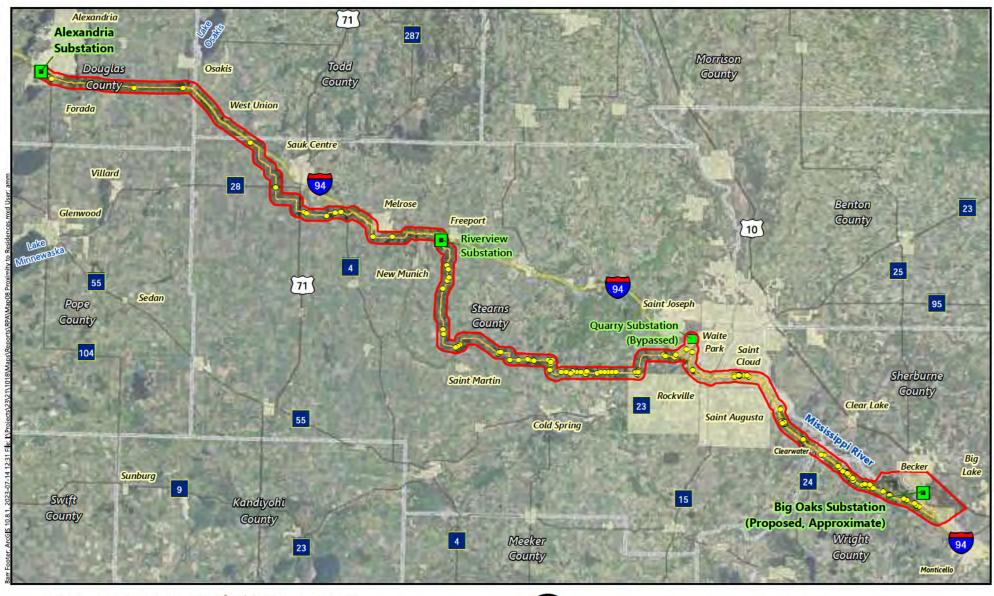


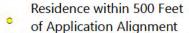
Feet 3,000

CITY OF BECKER ZONING DISTRICTS AT BIG OAKS SUBSTATION AND MISSISSIPPI RIVER CROSSINGS

ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

Map 11: Residences Along Alignment







Anticipated Alignment

- Project Substation
- Bypassed Substation



County State-Aid Highway
Municipal Boundary

County Boundary

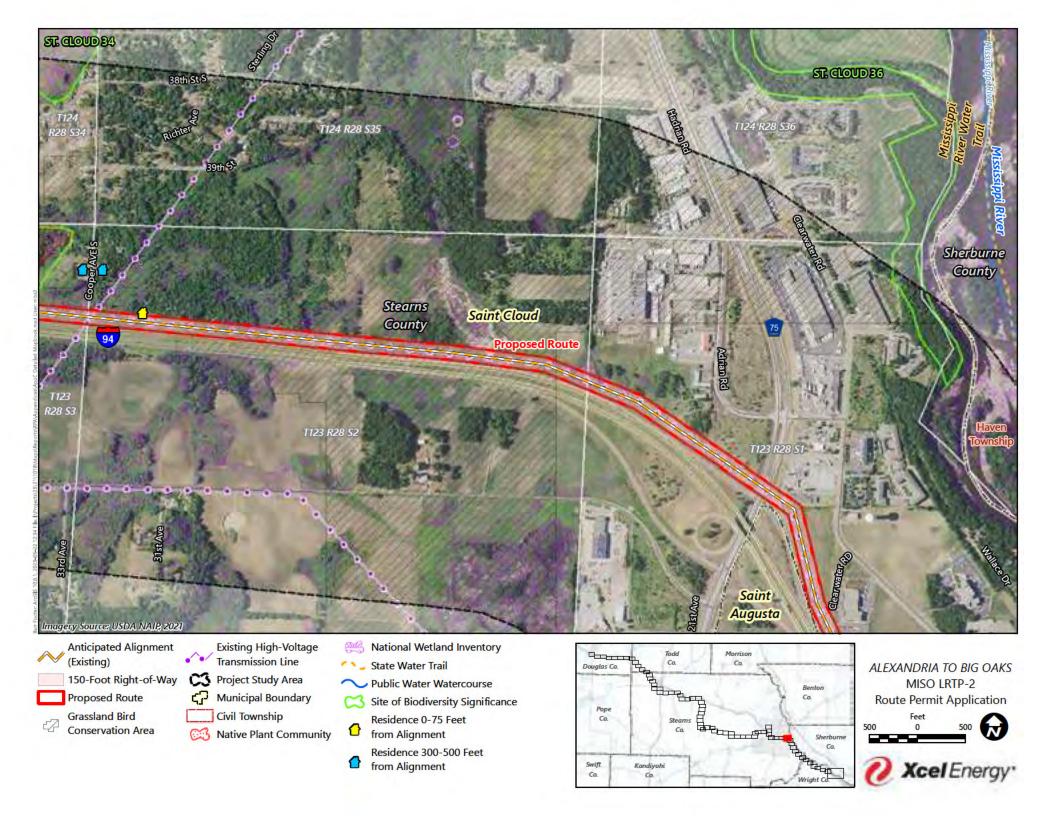
State Boundary



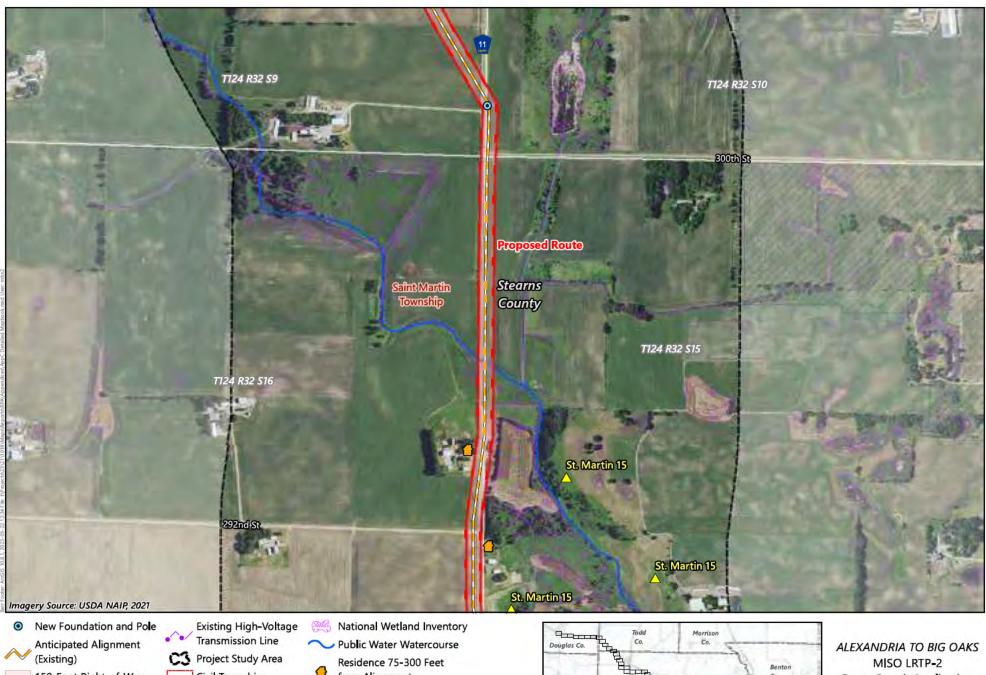
PROXIMITY TO RESIDENCES

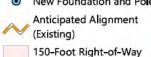
ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Route Permit Application

Map 12: Nearest Residence



Map 13: Calcareous Fen





Proposed Route

Grassland Bird Conservation Area Civil Township from Alignment

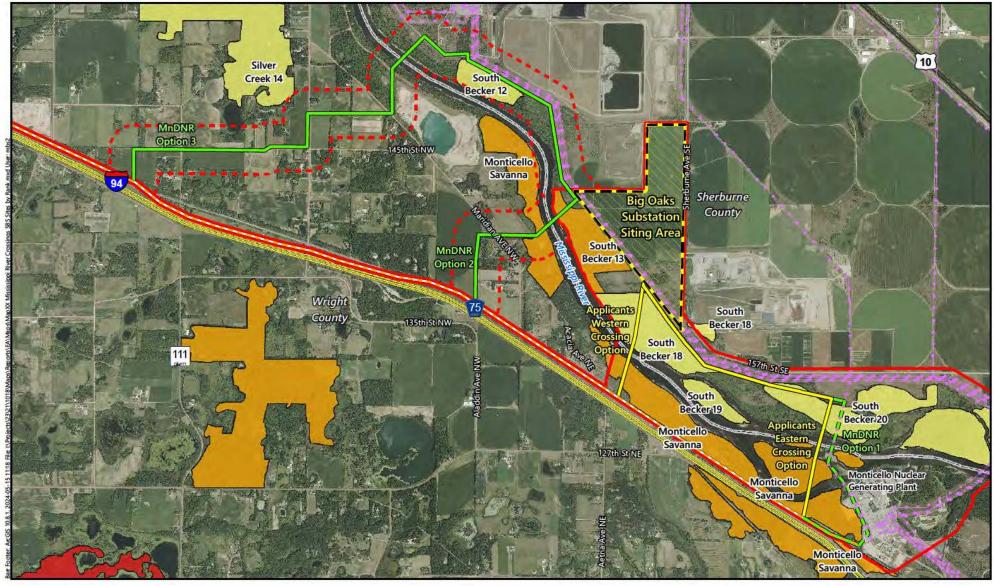
Calcareous Fen Location







Map 14: SBS Sites by Rank at River Crossing





Proposed Mississippi Crossing Option (New Build)

MnDNR Mississippi Crossing Option (Rebuild/Expand)

MnDNR Mississippi Crossing Option (Existing)

MnDNR Mississippi Crossing Option (New Build)

Proposed Route

MnDNR Option Route

Existing High-Voltage Transmission Line

Site of Biodiversity Significance by Significance Ranking

Outstanding

High

Moderate

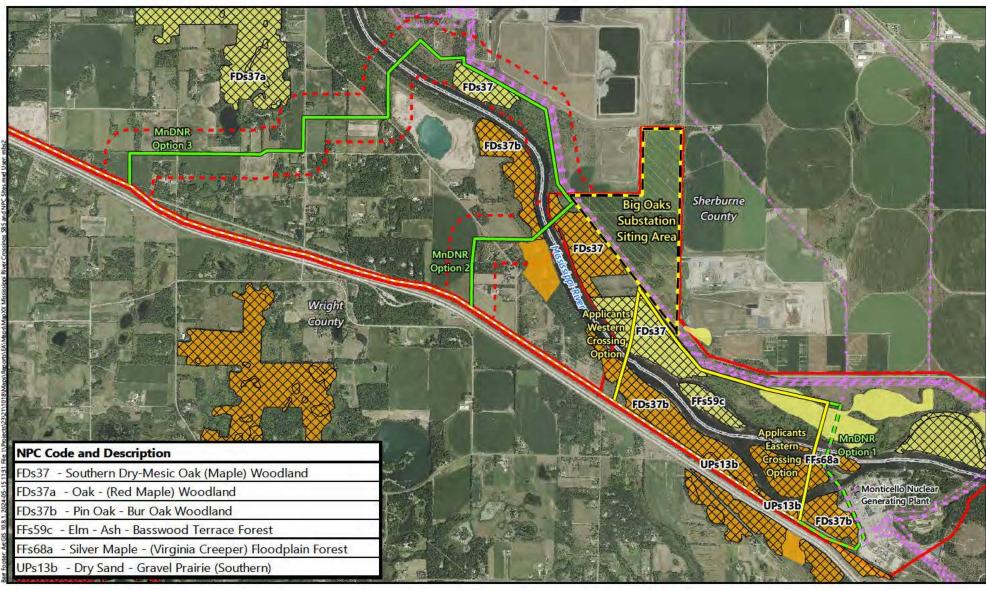


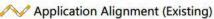
Feet 3,000

MISSISSIPPI RIVER CROSSING SITES OF BIODIVERSITY SIGNIFICANCE

ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

Map 15: SBS Sites and Native Plant Communities at River Crossing





Proposed Mississippi Crossing Option (New Build)

MnDNR Mississippi Crossing Option (Rebuild/Expand)

MnDNR Mississippi Crossing Option (Existing)

MnDNR Mississippi Crossing Option (New Build)

CS Proposed Route

MnDNR Option Route

Existing High-Voltage Transmission Line

Native Plant Community*
Site of Biodiversity Significance
by Significance Ranking

M Outstanding

Migh

Moderate

* Labeled with NPC Code



Feet 0 3,000

MISSISSIPPI RIVER CROSSING NATIVE PLANT COMMUNITIES AND SITES OF BIODIVERSITY SIGNIFICANCE

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