

CapX2020

Delivering electricity you can rely on



- Project Substations
- Preferred Substation Area
- Alternate Substation Area

- Routes**
- Preferred
 - Alternate
 - Both Preferred & Alternate

Appendix D.1
Project Overview Map

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Substation Area
- Alternate Substation Area

Existing Substation and Expansion

- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Area
- Expansion Area

CapX2020
Delivering electricity you can rely on

0 200 400 Feet
1:4,800

Transmission Lines

- Existing Substations
- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

- State Funded
- Federally Funded

Stanley
T 112 R 40

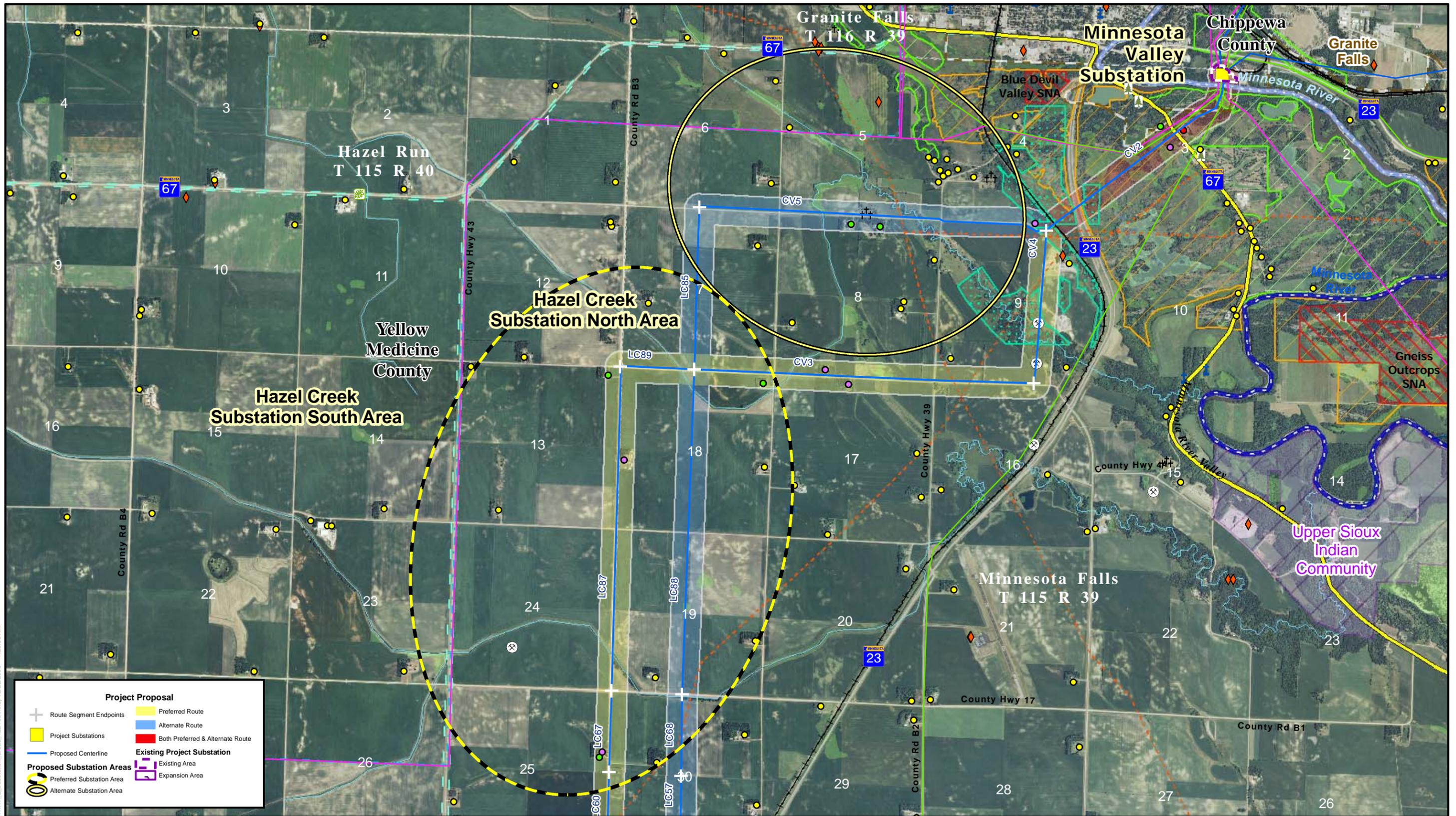
Appendix D.2
Lyon County Substation

Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Data Source: Please refer to Section 12



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Substation Area
- Alternate Substation Area
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
- Existing Area
- Expansion Area

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0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Railroad Prairie

- Center Pivot Irrigation
- MCES Planned Interceptor

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

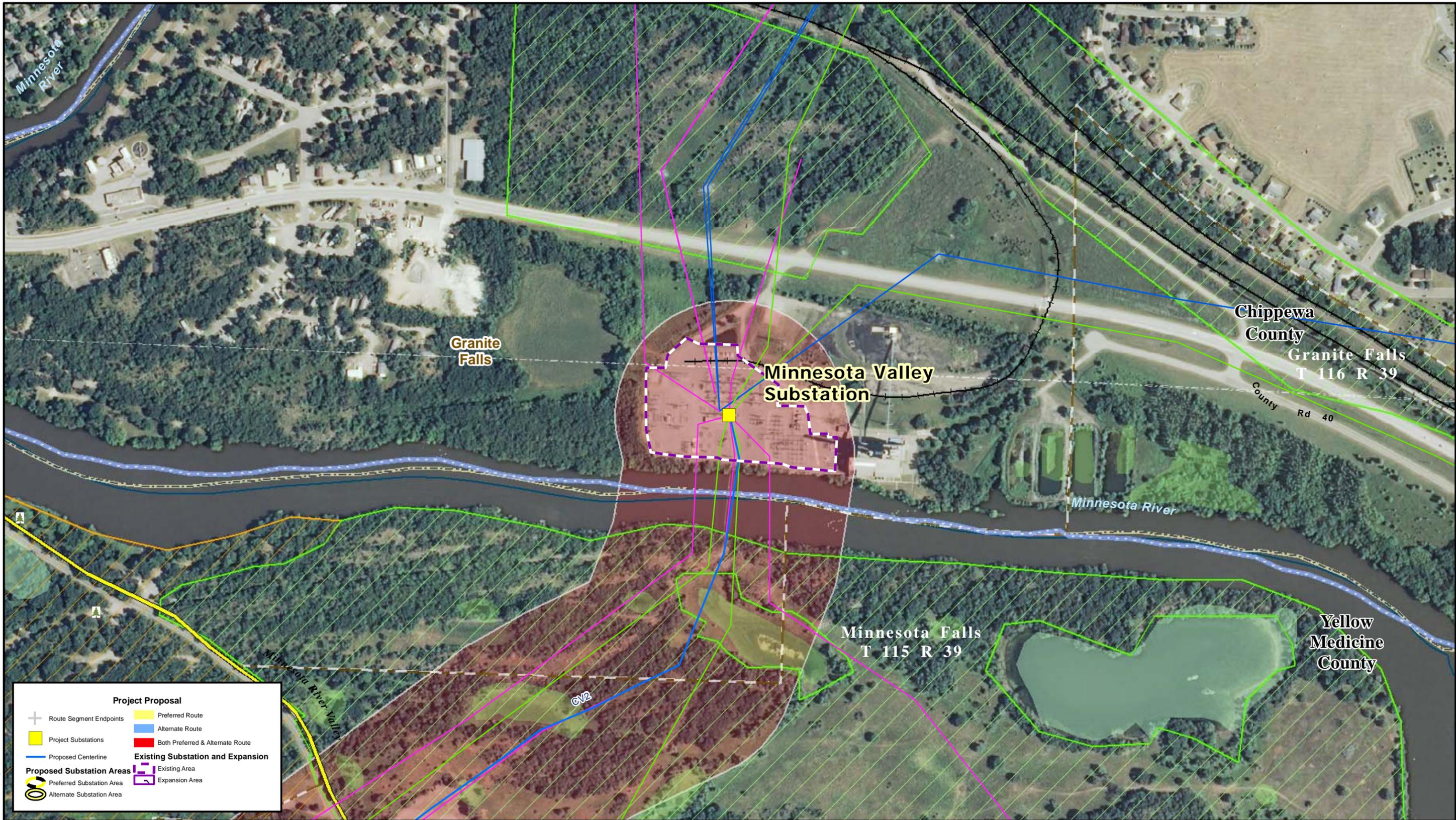
MN WMA

- State Funded
- Federally Funded

Appendix D.3
Hazel Creek Substation Area
Substation Maps
Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Data Source: Please refer to Section 12



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Substation and Expansion
- Existing Area
- Expansion Area
- Preferred Substation Area
- Alternate Substation Area

CapX2020
Delivering electricity you can rely on

0 200 400 Feet
1:4,800

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

- State Funded
- Federally Funded

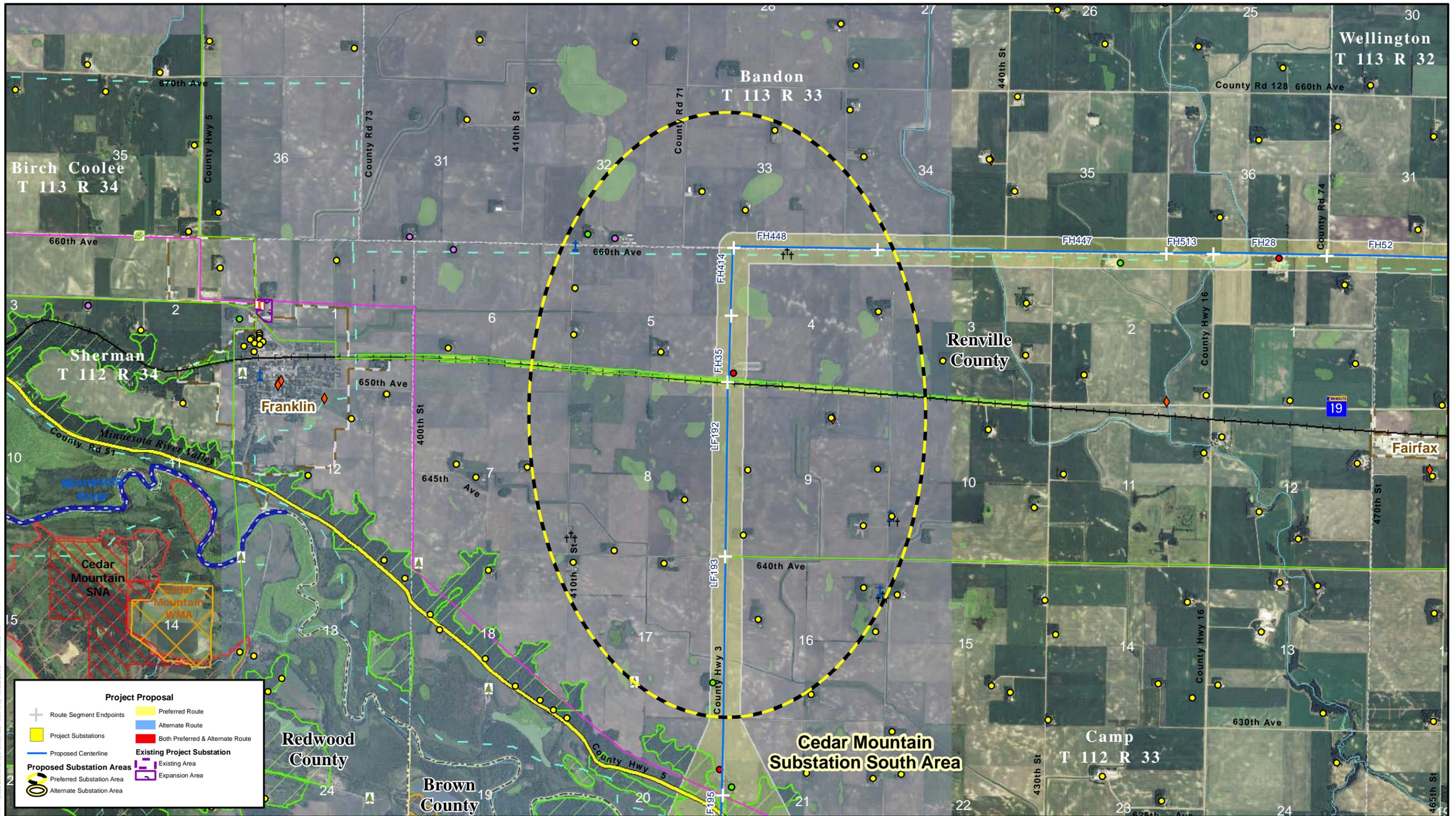
Appendix D.4
MN Valley Substation

Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Data Source: Please refer to Section 12



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Substation Area
- Alternate Substation Area
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
- Existing Area
- Expansion Area

CapX2020
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0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

Other Features:

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

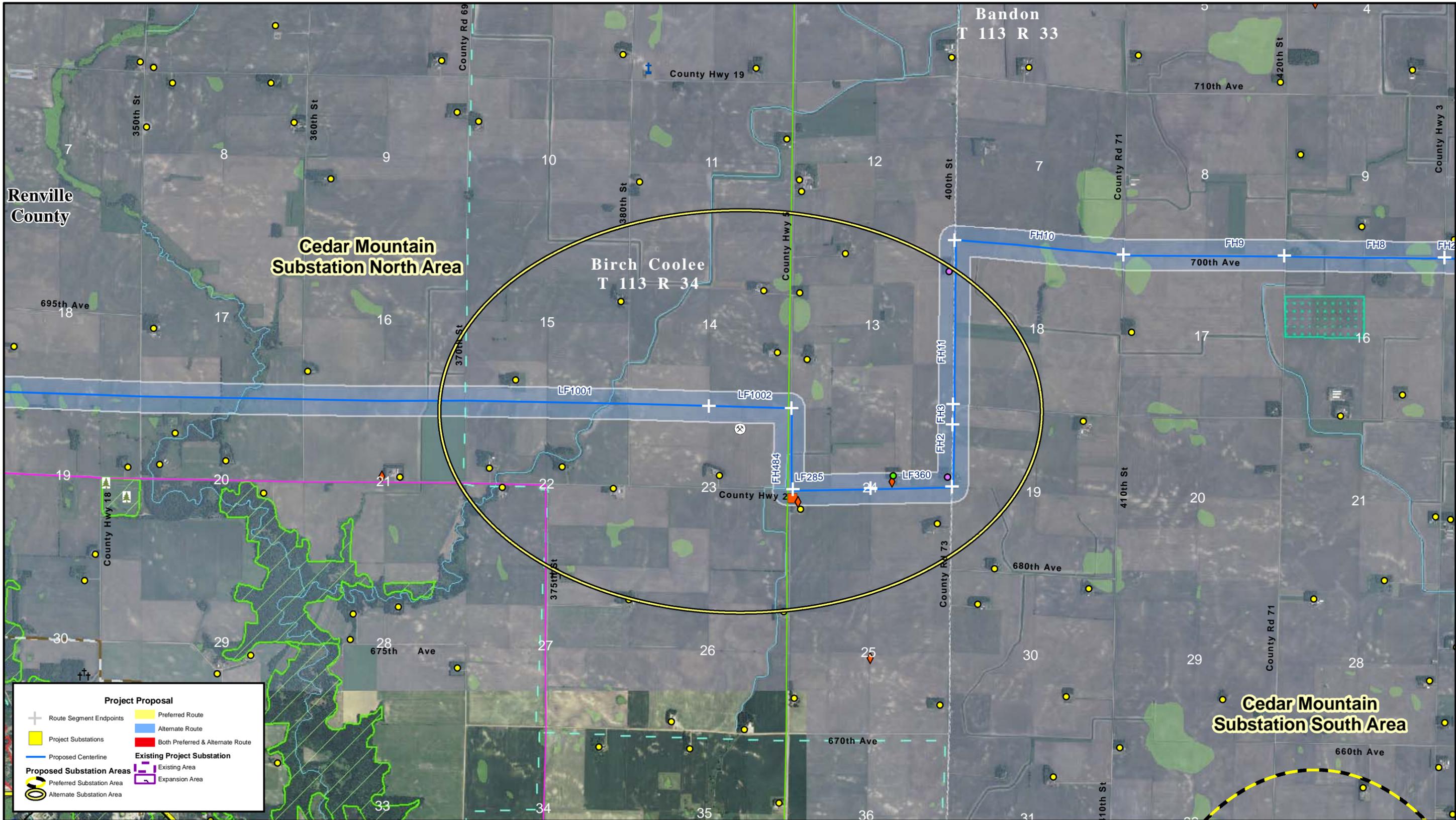
- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

- State Funded
- Federally Funded

Appendix D.5
Cedar Mountain Substation South Area
Substation Maps
Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
- Existing Area
- Expansion Area

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0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

Other Features:

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

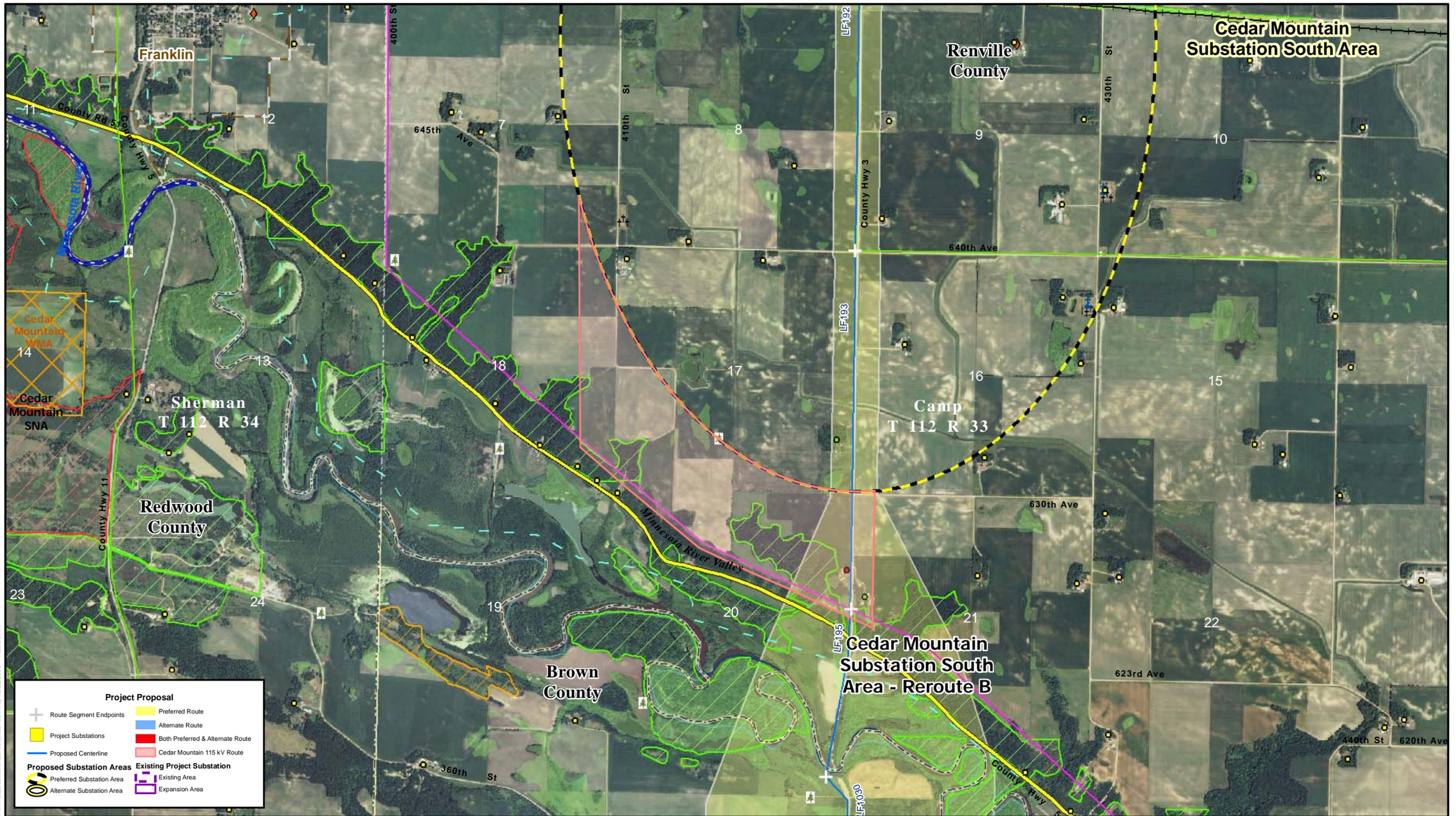
- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

- State Funded
- Federally Funded

Appendix D.6
Cedar Mountain Substation North Area
Substation Maps
Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Cedar Mountain 115 kV Route

Proposed Substation Areas

- Preferred Substation Area
- Alternate Substation Area

Existing Project Substation

- Existing Area
- Expansion Area

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0 1,000 2,000 Feet
1:24,000

Existing Substations

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

Other Features

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Other Features

- Railroad Prairie
- Center Pivot Irrigation
- MCES Planned Interceptor

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

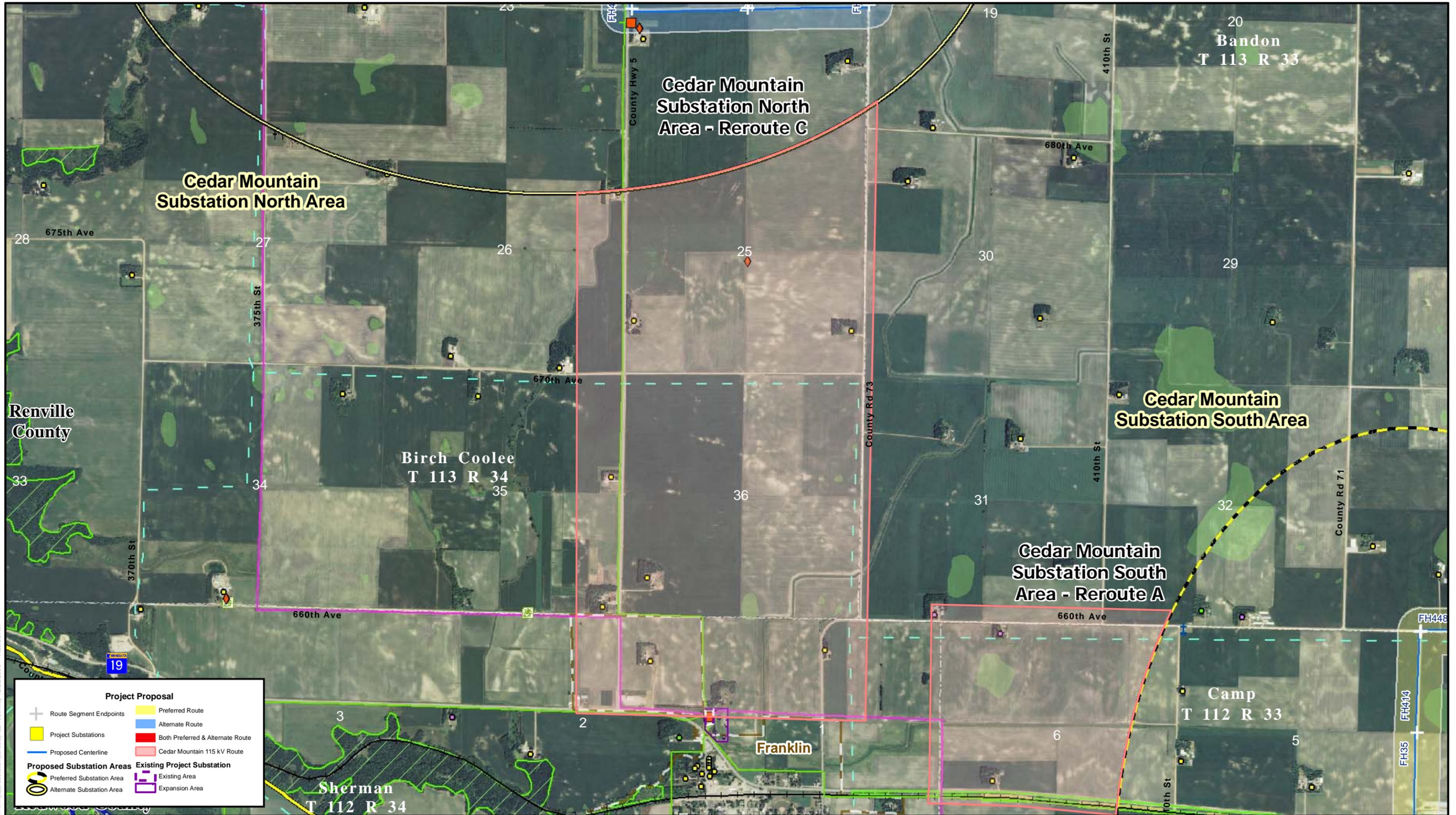
- State Funded
- Federally Funded

Appendix D.8
Cedar Mountain Substation South Area - Reroute B
Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Data Source: Please refer to Section 12



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Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Cedar Mountain 115 kV Route

Proposed Substation Areas

- Preferred Substation Area
- Alternate Substation Area

Existing Project Substation

- Existing Area
- Expansion Area

CapX2020
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0 1,000 2,000 Feet
1:24,000

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Existing Substations
- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline
- Railroad Prairie
- Center Pivot Irrigation
- MCES Planned Interceptor
- Trails
- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail
- MCBS Biodiversity Significance
- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

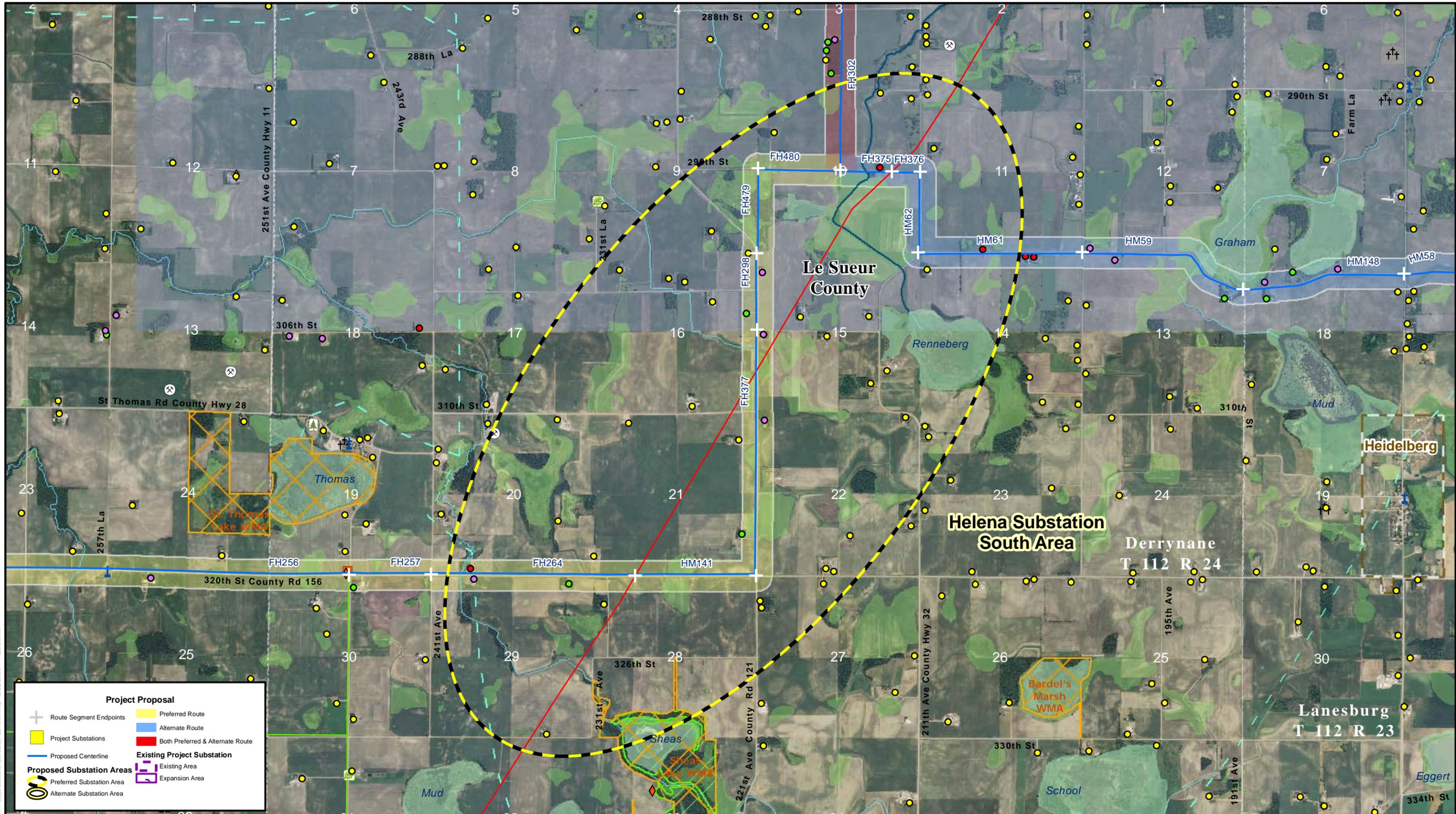
MN WMA

- State Funded
- Federally Funded

Appendix D.9
Cedar Mountain Substation North Area - Reroute C
Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Data Source: Please refer to Section 12



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
- Existing Area
- Expansion Area

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0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

Other Features:

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

MN SNA

- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement

MN WMA

- State Funded
- Federally Funded

Appendix D.10
Helena Substation South Area

Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
 - Preferred Substation Area
 - Alternate Substation Area
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
 - Existing Area
 - Expansion Area

CapX2020
Delivering electricity you can rely on

0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Railroad Prairie

- Center Pivot Irrigation
- MCES Planned Interceptor

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

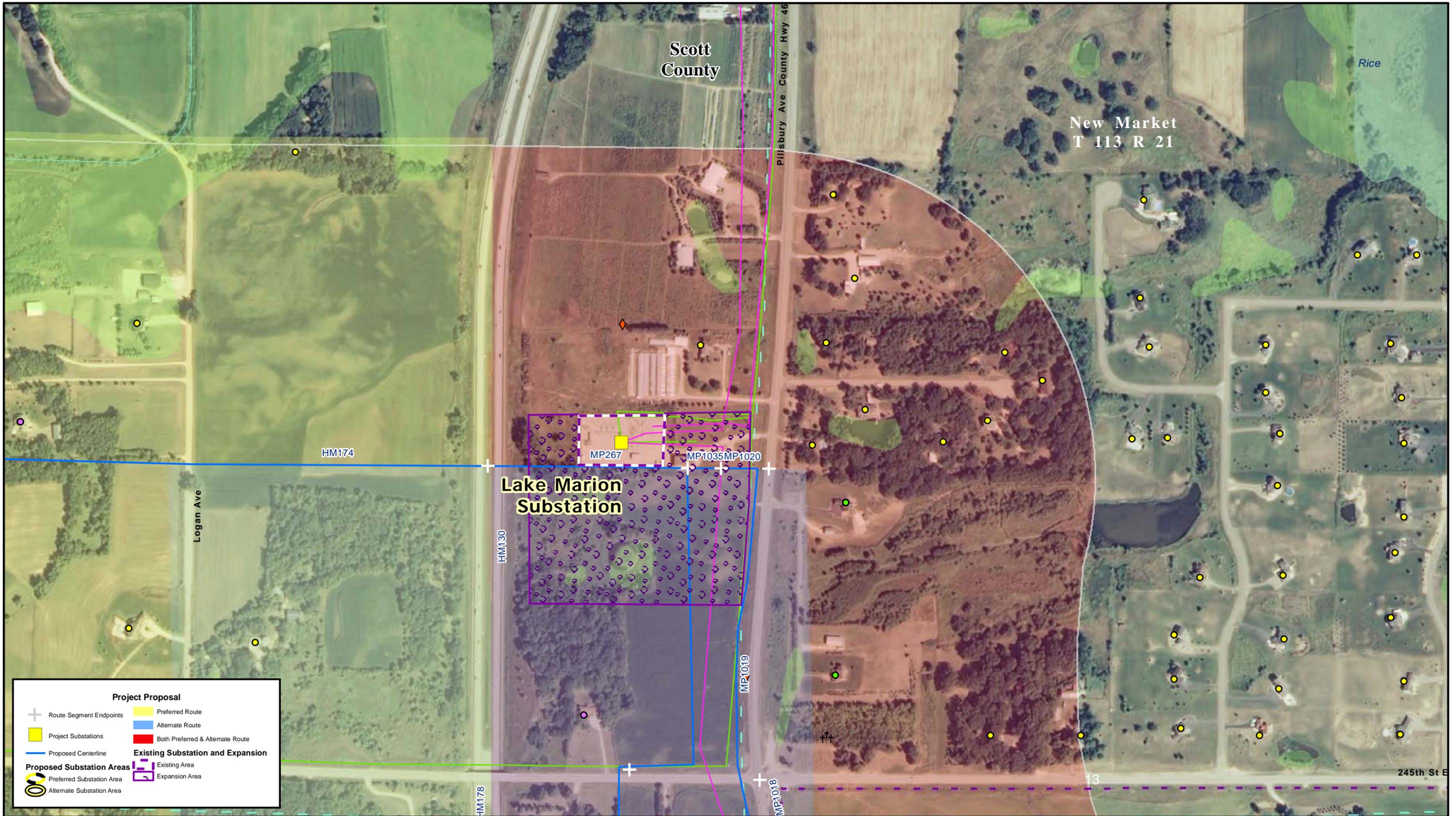
- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

- MN SNA
- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement
- MN WMA**
 - State Funded
 - Federally Funded

Appendix D.11
Helena Substation North Area
Substation Maps
Route Permit
Brookings County - Hampton
345 kV Transmission Line

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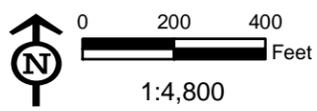
Data Source: Please refer to Section 12



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
 - Preferred Substation Area
 - Alternate Substation Area
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Substation and Expansion
 - Existing Area
 - Expansion Area

CapX2020
Delivering electricity you can rely on



Data Source: Please refer to Section 12

- Existing Substations**
- 69 kV - Existing
 - 115 kV - Existing
 - 230 kV - Existing
 - 345 kV - Existing
 - 69 kV - Proposed
 - 115 kV - Proposed
 - 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

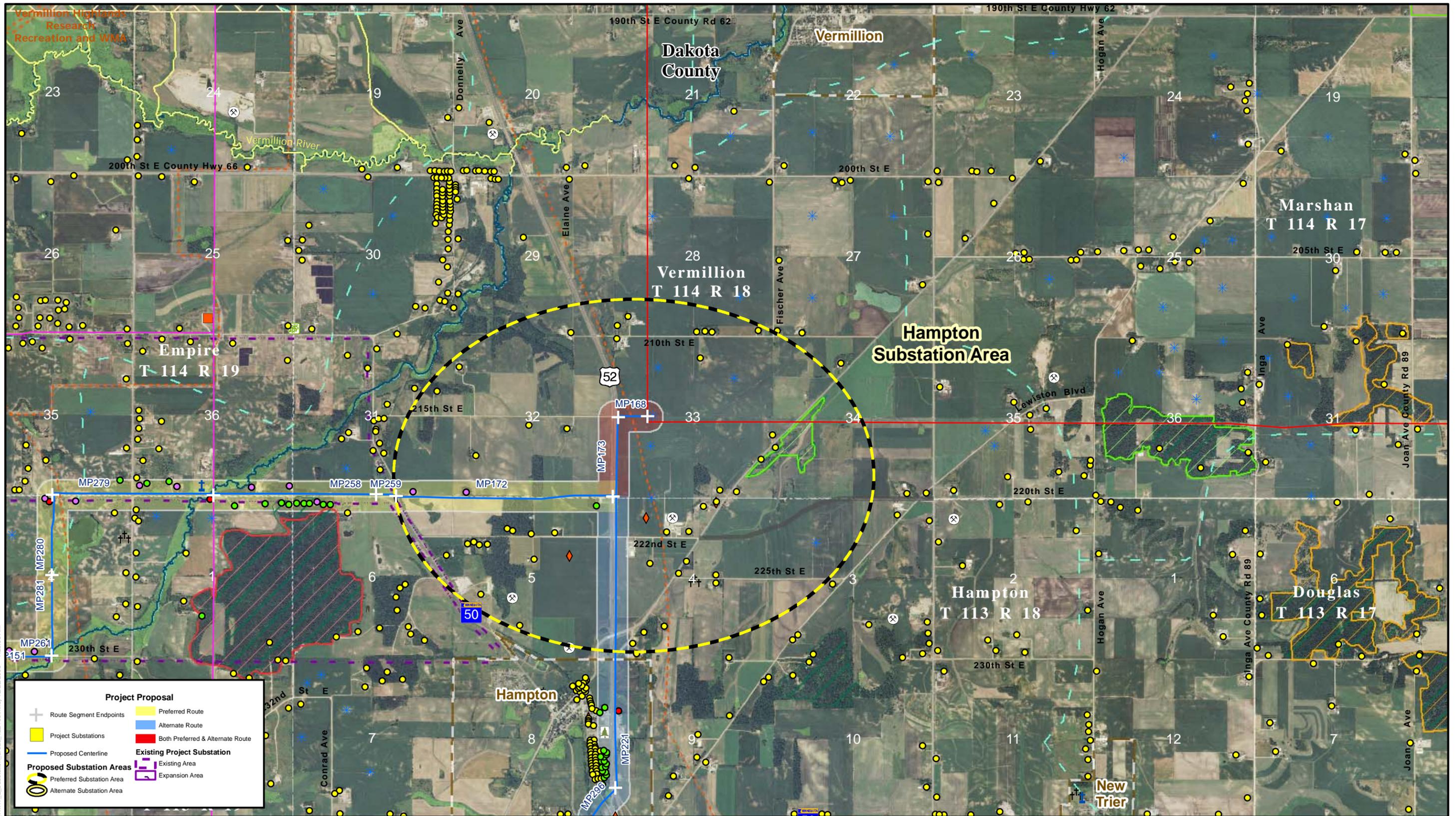
- Trails**
- Existing State & Regional Trail
 - Regional Planned & Proposed Trail
 - Snowmobile Trail
- MCBS Biodiversity Significance**
- Moderate Significance
 - High Significance
 - Outstanding Significance

- Homes (from Proposed Centerline)**
- 75 - 150 ft
 - 150 - 300 ft
 - 300 - 500 ft
 - over 500 ft

- MN State Wild and Scenic River**
- Scenic
 - Recreational
- Hydrography and Wetlands**
- NWI Wetland
 - PWI Water
 - MN Trout Streams
 - Impaired Waters

- MN SNA**
- Metro Park
 - Metro Significant
 - USFWS WPA
 - USFWS NWR
 - USFWS Easement
- MN WMA**
- State Funded
 - Federally Funded

Appendix D.12
Lake Marion Substation
Substation Maps
Route Permit
Brookings County - Hampton
345 kV Transmission Line



Project Proposal

- Route Segment Endpoints
- Project Substations
- Proposed Centerline
- Proposed Substation Areas
- Preferred Route
- Alternate Route
- Both Preferred & Alternate Route
- Existing Project Substation
- Existing Area
- Expansion Area

CapX2020
Delivering electricity you can rely on

0 1,500 3,000 Feet
1:36,000

Existing Substations

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing
- 69 kV - Proposed
- 115 kV - Proposed
- 230 kV - Proposed

- Cemetery
- Churches
- Parks and Recreation
- Aggregate locations
- FCC Telecom Tower
- Certified Organic Farm
- Scenic Byway
- Planned MN DOT Upgrades
- Existing Pipeline

Railroad Prairie

- Center Pivot Irrigation
- MCES Planned Interceptor

Trails

- Existing State & Regional Trail
- Regional Planned & Proposed Trail
- Snowmobile Trail

MCBS Biodiversity Significance

- Moderate Significance
- High Significance
- Outstanding Significance

Homes (from Proposed Centerline)

- 75 - 150 ft
- 150 - 300 ft
- 300 - 500 ft
- over 500 ft

MN State Wild and Scenic River

- Scenic
- Recreational

Hydrography and Wetlands

- NWI Wetland
- PWI Water
- MN Trout Streams
- Impaired Waters

- MN SNA
- Metro Park
- Metro Significant
- USFWS WPA
- USFWS NWR
- USFWS Easement
- MN WMA**
- State Funded
- Federally Funded

Appendix D.13
Hampton Substation Area

Substation Maps

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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