In the Matter of the Route Permit Application for the Hollydale 115 kV Transmission Line Project in the Cities of Plymouth and Medina, Hennepin County, Minnesota

Environmental Assessment
Scoping Decision Document
PUC Docket No. E002/TL-11-152

Introduction

The above matter has come before the deputy commissioner of the Department of Commerce for a decision on the scope of the environmental assessment (EA) to be prepared on the Hollydale 115 kV transmission line project proposed by Xcel Energy and Great River Energy (applicants).

Project Description

As described in the route permit application (RPA), the proposed project is a rebuild of 8 miles of the existing Great River Energy (GRE) 69 kilovolt (kV) transmission line to a 115 kV transmission line, constructing approximately 0.8 miles of new 115 kV transmission line, constructing a new 115 kV substation, and modifying associated facilities (Figure 1).

The applicants are requesting a 200 foot route width where the transmission line is to be rebuilt along the existing 69 kV transmission line route which extends from the existing Medina substation located southwest of the intersection of Willow Drive and County State Aid Highway (CSAH) 24, at the intersection of GRE's existing 115 kV transmission line just north of Fernbrook Lane in the city of Plymouth. A 400 foot route width is being requested for the 0.8 miles of new 115 kV transmission that would run from the intersection of the existing GRE 115 kV transmission line and follow along the north side of the Canadian Pacific Railway east to Cheshire Lane, then south along Cheshire Lane, and east along Schmidt Lake Road to proposed location of Substation Site A.

The proposed transmission line will require a right-of-way of 75 feet (37.5 feet on either side of centerline). The proposed project includes a rebuild of approximately 8 miles of existing 69 kV transmission line that has a current right-of-way between 70 to100 feet depending on the location. The applicants indicate in the RPA that the project can be designed to fit within these existing easements, thereby requiring little to no new right-of-way while still satisfying the needs of the project.

Purpose

The applicants indicate in the RPA that the proposed project will provide increased distribution capacity and avoid feeder circuit overloads in the Plymouth area distribution delivery system. This includes increased distribution capacity in the Plymouth and Medina areas to better serve current customers and expected load growth. In addition, the applicants explain that system reliability would be enhanced by supplying the existing Hollydale substation with a redundant 115 kV connection.

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Regulatory Background

A high-voltage transmission line RPA for the project was filed by the applicants on June 30, 2011, and accepted by the Minnesota Public Utilities Commission (Commission) on August 25, 2011. The route permit will be reviewed under the alternative review process, pursuant to Minnesota Statues 216E (Power Plant Siting Act) and Minnesota Rules 7850.2800 to 7850.3900. Under the alternative permitting process the Commission has six months from the date the application was accepted as complete to make a decision on the route permit. The Commission may extend this time limit up to three months for just cause or upon agreement of the applicant (Minnesota Rule 7850.3900, subpart 1).

Scoping Process

Scoping is the first step in the process after application acceptance. The scoping process has two primary purposes: 1) to ensure that the public has a chance to participate in determining what routes and issues should be considered for study in the EA, and 2) to help focus the EA on the most important issues surrounding the route permit decision. The scope identifies potential human and environmental issues that will be addressed in the EA. The scope also presents an anticipated schedule of the environmental review process.

Advisory Task Force

As authorized by the Commission, Energy Facility Permitting (EFP) staff established an advisory task force (ATF). The task force was charged with: 1) identifying specific impacts and issues of local concern, and 2) identifying potential alternative transmission line routes or route segments and alignments that may maximize positive impacts and/or minimize or avoid negative impacts of the project.

The ATF met two times in October and November 2011, and generated a number of issues and concerns including six alternative route segments. The ATF recommended selecting five of the route segments from those included in the applicants' RPA (Alternative Routes A, B, C, and D), and two of the six new alternative routes created by the task force (ATF Alternative Route B-1 and ATF Alternative Route E). The task force also recommended including both substation sites (Substation Sites A and B) as proposed in the RPA. The recommendations of the ATF have been considered during the preparation of this scope and can be found in its final report at: http://energyfacilities.puc.state.mn.us/documents/32121/FINAL_Report_Hollydale_Project_112311.pdf.

Public Scoping Meeting

EFP staff held a public information and scoping meeting on October 26, 2011, at the Best Western Kelly Inn in Plymouth, Minnesota. The meeting provided members of the public an opportunity to learn about the proposed project and the state's high-voltage transmission line route permitting process, review the applicants' RPA, ask questions, provide comments, and identify potential impacts and route alternatives to be considered for the scope of the environmental assessment. Approximately 250 to 300 people attended the meeting.

A court reporter was present at the public meeting and transcribed questions asked and comments made by the public, as well as responses from EFP staff and the applicants. In total, 31 people provided oral comments and/or asked questions about the proposed project. Topics and issues raised by the public at the meeting included: health and safety (electric and magnetic fields), project cost, noticing issues, history of the existing 69 kV transmission line, implantable medical devices and property values. Alternative Route E was brought up frequently by a large number of citizens as a positive alternative to the applicants' Proposed Route.

Public Comments

A public comment period, ending on November 9, 2011, provided the public an opportunity to submit comments to EFP staff via e-mail, fax, U.S. mail or online on issues and alternative routes and alignments for consideration for the scope of the EA. EFP staff received approximately 450 comment letters by the close of the comment period.

Of the 450 comment letters received, 19 were form letters from Bridlewood and Churchill Farms neighborhood residents which also included signatures from 505 citizens, 33 were form letters from the Orchards of Plymouth Townhome residents, 27 was form letters from various citizens, and 46 were petitions from Timber Creek Crossing residents. A summary of the issues raised in the scoping comments as well as the frequency the issue was raised is summarized in Table 1.

The scoping meeting comment report and each comment letter is available for viewing and downloading on the project website maintained by the Commission at: http://energyfacilities.puc.state.mn.us/Docket.html?Id=32121 or on the eDockets website at: eDockets Hollydale 115 kV Project Website.

Table 1: Issues Raised During Scoping Period [A]

Issue	Number of Comments
Property Values	238
Health and Safety (electric and magnetic fields)	193
Aesthetics	122
Wetlands	111
History of Existing 69 kV Line and History of Residential Development	97
Noise	94
Proximity to Homes/Businesses/Structures	44
Existing Easements and Right-of-Way Issues	38
Transmission Structure Composition/Design	38
Transmission Pole Stability (fall down)	38
Wildlife	34
General use of Right-of-Way (fire pits, barbeques, and filling mowers with gasoline)	29
Tree Loss Along and within Right-of-Way (mature trees and vegetation removal)	28
Federal Housing Administration (FHA) Falling Hazard Regulations	28
Parks, Recreation, Trails	27

Issue	Number of Comments
Avian Concerns	25
Mosquito Control (application via aircraft)	19
Undergrounding Transmission Line	17
Cost Between Routes	13
Property Destruction/Compensation	11
Schools	10
Surface Water Resources (lakes, rivers, streams, floodplains)	7
Pacemakers	4
Interference	3
Displacement	2
Construction Activities	1
Rare and Endangered Species	1
Zoning	1

[A] The number of comments in the table is estimated, as there may be instances when a person sent both a written/email comment letter and provided oral comments at the public meeting and the issues may be duplicated. The table also includes issues identified by the Hollydale ATF.

Seven alternative routes were identified in letters, e-mails and oral comments provided by the public during the comment period. The ATF developed two alternative routes and recommended four alternative routes that were identified in the applicants' RPA. A total of 13 alternative routes were suggested during the scoping process as follows:

Alternative routes suggested through public comment

- CSAH 24 Alternative Route
- Providence Academy Alternative Route
- Medina Road Alternative Route
- Alternative Route F-1
- Alternative Route F-2
- Alternative Route F-3
- Alternative Route G

Alternative routes developed by the ATF

- ATF Alternative Route B-1
- ATF Alternative Route E

Alternative routes identified in RPA and recommended by ATF

- Alternative Route A
- Alternative Route B
- Alternative Route C
- Alternative Route D

Natural Resource Conservation Service

A letter from the Natural Resource Conservation Service (NRCS) dated August 11, 2011, indicated that the proposed rebuild of the 8 miles of existing 69 kV transmission line to 115 kV transmission line and the proposed construction of 0.8 miles of new 115 kV line does not appear to permanently affect agricultural land, thus precluding the need for further action on this project under the Farmland Protection Policy Act (FPPA).

If as a result of the proposed project agricultural lands are affected, and if federal monies are involved, a FPPA site assessment is required. Should the location and activities have the potential to impact agricultural land, a Farmland Conservation Impact Rating form and detailed site map of the area impacted for each Minnesota county should be submitted.

U.S. Fish and Wildlife Service

An e-mail from the U.S. Fish and Wildlife Service (USFWS) dated August 16, 2011, indicated that there are no federally listed or proposed species and/or designated or proposed critical habitat within the area of the proposed project. The USFWS did recommend the installation of bird diverters where the Proposed Route would cross an approximate 70-acre wetland situated between Lawndale Lane North and Garland Lane North where Trunk Highway (TH) 55 crosses the wetland. The existing 69 kV transmission line currently crosses the wetland in this location.

Minnesota Department of Natural Resources

A letter from the Minnesota Department of Natural Resources (DNR) dated November 9, 2011, raised concern over the construction schedule outlined in the RPA. The DNR indicated the construction time frame summarized in the route application shows construction commencing in the second quarter of 2012, which is an unfavorable time to work in wetlands and waterbodies. The DNR also cautioned that this warmer time of year can also increase the potential for the incidental spread of invasive species.

The DNR also suggested that a detailed discussion of right-of-way vegetation removal for both upland and wetland areas should be included in the EA. The DNR also recommends including a discussion of the construction procedures used to remove the existing 69 kV transmission poles and how new transmission poles will be erected, including route, right-of-way, and alignment considerations.

Because bird diverters are an important mitigation measure in reducing the number of avian collisions in wetland habitats, the DNR indicated that the EA should include a discussion of bird diverters and the location(s) where they would be most effective.

Minnesota Department of Transportation

In a letter dated November 9, 2011, the Minnesota Department of Transportation (Mn/DOT) advised that there are some locations where the northern portion of Alternative Route Segment A would run along TH 494, though the proposed power line will be further away from TH 494 than the existing transmission lines and well away from Mn/DOT right-of-way. In addition, Mn/DOT pointed out that Substation Site A shares the property line with TH 494, but does not appear to limit the use of Mn/DOT's right-of-way.

However, where Alternative Route Segment A travel south to the interchange of TH 494 and Rockford Road, the transmission line location may overlap Mn/DOT right-of-way. The provisions of Section VI of the Utility Accommodation Policy relating to utilities occupying a portion of freeway rights-of-way would apply, and an evaluation of whether the transmission line would limit future development of the TH 494 and Rockford Road interchange would be conducted.

Mn/DOT also suggests the EA should assess the relationship of the placement of the proposed utility poles and the location of the highway activities for both the current traveled way and the future traveled way.

With respect to Alternative Route E, Mn/DOT expressed that all of the considerations identified above would apply to this route. The much longer distance that Alternative Route E would run parallel to TH 494 and parallel to TH 55 would require correspondingly more evaluation of whether and where the occupation of the highway right-of-way can be permitted.

Mn/DOT also indicated that the anticipated project on TH 55 from the Crow River to TH 494 prepared in 2008 by Hennepin County and Mn/DOT should be addressed in the EA.

Matters to be Addressed

Having reviewed the matter, consulted with EFP staff, and in accordance with Minnesota Rule 7850.3700, I hereby make the following scoping decision:

The issues outlined below will be identified and described in the EA for the proposed Hollydale 115 kV project. The EA will describe the project and current setting of the proposed project area. It will also provide information on the potential impacts the proposed project could have as they relate to the topics outlined in this scoping decision document, including possible mitigation for identified impacts, identification of irretrievable commitment of resources and permits from other government entities that may be required.

I. General Description of the Proposal

A. Project Description
B. Purpose of the Transmission Line
C. Project Location
D. Route Description
E. Route Width
F. Right-of-Way
    1. General use of right-of-way (i.e. Fire pits, barbeques, filling mowers with gasoline, and decks/patios, vegetation, trees)
    2. Existing easement issues (rebuild portion)
    3. Restoration and maintenance
A. Project Cost

II. Regulatory Framework

A. Certificate of Need
B. High Voltage Transmission Line Route Permits
C. Environmental Review Process

III. Engineering, Design, and Operation

A. Transmission Line Conductors
B. Transmission Line Structures
    1. Design and structure material
    2. Structure strength and stability (i.e. Structural failure)
C. Substations
D. Undergrounding Transmission Line Facility

IV. Construction

A. Transmission Line and Structures
B. Substations
C. Restoration and Cleanup
D. Property Destruction and Compensation
E. Operation and Maintenance

V. Affected Environment, Potential Impacts, and Mitigation Measures

A. Environmental Setting
B. Socioeconomic and Cultural Setting
C. Human Settlement
    1. Noise
    2. Aesthetics
    3. Proximity to homes
    4. Existing utilities (e.g. Pipelines, propane tanks, septic systems)
    5. Property values
    6. Federal housing administration (FHA) regulations
    7. Property/right-of-way acquisition and displacement
    8. History of existing 69 kV line and existing residential development
D. Health and Safety
    1. Construction and operation/maintenance
    2. Electric and magnetic fields
    3. Implantable medical devices (e.g. Pacemakers)
    4. Stray voltage
    5. Induced voltage
    6. Air quality associated with the transmission facility

E. Recreation
    1. Parks (city, county, state, and federal)
    2. Trails
F. Transportation and Public Services
    1. Emergency services
    2. Airports
    3. Railroads
    4. Schools
    5. Mosquito control (i.e. Application via aircraft)
G. Interference
    1. Radio (AM/FM and short-wave)
    2. Television (satellite and digital)
    3. Cellular phone
    4. Broadband and wireless internet
H. Archaeological and Historic Resources
I. Land Use (land-based economies)
    1. Mining
    2. Industrial/commercial
    3. Tourism
    4. Agriculture
    5. Forestry
J. Zoning and Compatibility/Federal, State and Local Government Planning
    1. Residential
    2. Commercial
    3. Rural/agricultural
    4. Industrial
    5. Transportation
    6. Shoreland
K. Water Resources
    1. Rivers, lakes, wetlands, and other surface waters
    2. Floodplains
L. Soil and Groundwater
M. Flora (plants)
    1. Vegetation removal
    2. Mature tree removal

N. Fauna (wildlife)
    1. Wildlife management areas
    2. Scientific and natural areas
    3. State and federal parks and forests
    4. National wildlife refuge/waterfowl production areas
    5. Avian collision and electrocution

O. Threatened/Endangered/Rare and Unique Natural Resources

VI. Alternative Routes to be Evaluated in the Environmental Assessment

In addition to the Proposed Route, the EA shall evaluate the following 13 alternative routes as suggested by the ATF and through public comment:

- Alternative Route A
- Alternative Route B
- ATF Alternative Route B-1
- Alternative Route C
- Alternative Route D
- ATF Alternative Route E
- Alternative Route F (includes Segments F-1, F-2, and F-3)
- Alternative Route G
- Medina Road Alternative Route
- CSAH 24 Alternative Route
- Providence Academy Alternative Route

<u>Alternative Route A</u>

The route would use the Proposed Route and incorporate Alternative Route Segment A as described in applicants' RPA. Alternative Route Segment A begins on the north side of Rockford Road/ CSAH 9 approximately 6.4 miles from the start of the proposed rebuild at the Medina substation. The route then proceeds north parallel to the north side of Rockford Road for 0.9 miles to the CSAH 9 and TH 494 interchange. The route turns north at the interchange and parallel the existing right-of-way of the Xcel Energy 345 kV Parkers Lake transmission line for 0.25 miles. At this point, a 115 kV GRE transmission line crosses from the east side of TH 494 to the west side of the Xcel Energy 345 kV transmission line, requiring Alternative Route Segment A to divert to the west approximately 60 feet. The route would then be aligned along the west side of the existing 115 kV GRE transmission line and continue north for 0.6 miles. The total length of Alternative Route Segment A is 1.75 miles (Figure 2).

Alternative Route B

Alternative Route Segment B as described in the RPA, begins at the Proposed Route on the eastern side of CSAH 101, approximately 4.5 miles from the start of the route at the Medina substation. The route then diverges from the Proposed Route and proceeds north, paralleling CSAH 101/Peony Lane, for approximately one mile before reaching the Canadian Pacific Railway tracks. At this point, the route proceeds east along the southern side of the Canadian Pacific Railway tracks for 2.3 miles to Substation Site B. Alternative Route Segment B rejoins the existing GRE 69 kV transmission line and the Proposed Route immediately northeast of Providence Academy. The total length of Alternative Route Segment B is 3.3 miles (Figure 3).

ATF Alternative Route B-1

As described in the Hollydale ATF report, ATF Alternative Route Segment B-1 veers from the Proposed Route at the intersection of Old Rockford Road and Peony Lane and follows Old Rockford Road east 0.5 miles to Holly Lane. Route B-1 then travels north along Holly Lane for 0.6 miles reconnecting with Alternative Route B. The total length of ATF Alternative Route Segment B-1 is approximately 1.1 miles (Figure 4).

Alternative Route C

As described in the RPA, Alternative Route Segment C begins on the east side of TH 55, approximately 4.9 miles from the start of the route at the Medina substation. The route parallels TH 55 for 0.5 miles and then turns northeast and parallels the north side of Rockford Road for 0.5 miles. Alternative Route Segment C turns north along the western edge of a small pond for approximately 260 feet and reconnects with the Proposed Route approximately 850 feet west of Vicksburg Lane. The total length of Alternative Route Segment C is approximately one mile (Figure 5).

Alternative Route D

Alternative Route Segment D begins on the eastern side of Cheshire Lane, 8.2 miles from the start of the route at the Medina substation. Alternative Route Segment D diverges from the Proposed Route and travels east along the south side of the Canadian Pacific Railway track for approximately 920 feet. The route then turns south along the western side of TH 494 and along the existing GRE Plymouth substation and an existing 345 kV transmission line for approximately 1,000 feet where it rejoins the Proposed Route on the north side of Schmidt Lake Road. The total length of Alternative Route Segment D is approximately 0.4 miles (Figure 6).

ATF Alternative Route E

ATF Alternative Route Segment E begins on the east side of TH 55, approximately 4.9 miles from the start of the route at the Medina substation. At this point ATF Alternative Route Segment E heads southeast along the south side of TH 55 for 2.4 miles to the intersection with TH 494, crosses over TH 55 and follows along the west side of TH 494 for 1.28 miles to Rockford Road, connecting with Alternative Route Segment A to Substation Site A. The total length of ATF Alternative Route Segment E is approximately 4.2 miles (Figure 7).

Medina Road Alternative Route

This alternative route segment was proposed by a citizen. The route would follow the Proposed Route that exits the Medina substation north, head east along CR 24/Medina Road for 3.8 miles connecting with the Proposed Route at the intersection of Medina Road and Troy Lane. The total length of the Medina Road Alternative Route Segment is approximately 3.8 miles (Figure 8).

CSAH 24 Alternative Route

This alternative route segment was proposed by a citizen. The route would follow the Proposed Route that exits the Medina substation north, head east along CSAH 24 for 3.9 miles to CSAH 101. The route would travel north on CSAH 101 for 0.9 miles reconnecting with the Proposed Route where it crosses CSAH 101. The total length of the CSAH Alternative Route Segment is approximately 4.8 miles (Figure 9).

Alternative Route F

This alternative route segment was proposed by a citizens group and included three variations (Alternative Route Segments F-1, F-2 and F-3). The three alternatives are largely the same route, sharing a total of two miles except for a small section where each of the three routes break from the Proposed Route and travel north to Medina Road (Figure 10).

Section F-1 of Alternative Route F would follow the Proposed Route that exits the Medina substation north and head east along CSAH 24 for 3.1 miles. Segment F-1 would then turn north following along Holy Name Drive 0.3 miles to Medina Road, head east along Medina Road for 0.3 miles to Brockton Lane, reconnecting with Alternative Route F. The total length of Alternative Route Segment F-1 is approximately 0.6 miles.

Section F-2 of Alternative Route F would follow the Proposed Route that exits the Medina substation north and head east along CSAH 24 for 3.3 miles. At this point Segment F-2 would travel north 0.4 miles across wetlands and cropland to Medina Road, head east along Medina Road for 0.13 miles to Brockton Lane, reconnecting with Alternative Route F. The total length of Alternative Route Segment F-2 is approximately 0.5 miles.

Section F-3 of Alternative Route F would follow the Proposed Route that exits the Medina substation north and head east along CSAH 24 for 2.8 miles. At this point Segment F-3 would travel north 0.3 miles through private land, wooded areas, and cropland, turn east for 0.8 miles and then head north 0.1 mile to Medina Road. Segment F-3 then heads east along Medina Road for 0.5 miles to Brockton Lane, reconnecting with Alternative Route F. The total length of Alternative Route Segment F-3 is approximately 1 mile.

The three sections (F-1, F-2, and F-3) all reconnect with Alternate Route F at the intersection of Medina Road and Brockton Lane. From the intersection of Medina Road and Brockton Lane Alternate Route F travels north along Brockton Lane for 0.95 miles, turning east for 0.07 miles along the south side of the Canadian Pacific Railway tracks to TH 55.

Alternative Route F then follows southeast along TH 55 for 1.4 miles to a point on TH 55 approximately 0.15 miles east of Lawndale Avenue North. At this point the route veers west from TH 55 for 0.2 miles over wetlands and through residential areas where it connects to the existing Hollydale substation. This 0.2 mile section of the route (between TH 55 and the Hollydale substation) would need to be a double-circuit 115 KV transmission line in order to meet the purpose of the project. From the east end of the double-circuit 115 kV at TH 55 the route then reconnects with the Proposed Route. The total length of Alternative Route Segment F varies depending on the alternative section used. Alternative Route Segment F using Section F-1 is approximately 3.4 miles, Alternative Route Segment F using Section F-2 is approximately 3.3 miles, and Alternative Route Segment F using Section F-2 is approximately 4.4 miles.

Alternative Route G

This alternative route segment was proposed by a citizens group. Alternative Route G would follow the Proposed Route that exits the Medina substation north, head east along CSAH 24 for 3.3 miles. At this point the route would travel north 0.4 miles across wetlands and crop land to Medina Road and then head east along Medina Road for 0.15 miles to Brockton Lane. At the intersection of Medina Road and Brockton Lane the route turns north and travels along Brockton Lane for 0.4 miles, at this point the route turns east for 0.7 miles crossing crop land, wetlands and forested areas to TH 55 where it connects to Alternative Route G. The total length of Alternative Route Segment G is approximately 2.4 miles (Figure 11).

Providence Academy Alternative Route

This alternative route segment was proposed by a citizen. The new 115 kV transmission line rebuild alignment and route would be shifted to a conservation easement of east campus and the GRE existing 69 kV transmission line that runs north and south on Providence Academy's campus, between Schmidt Lake Road and the railroad tracks (Figure 12).

VII. Identification of Permits

The EA will include a list and description of permits from other government entities that may be required for the proposed project.

Issues Outside the Scope of the Environmental Assessment

The scope of the Hollydale 115 kV EA will not consider the following:

A. No-build alternative
B. Issues related to project need, size, type, or timing
C. Any route or substation alternatives not specifically identified in this scoping decision document
D. Policy issues surrounding whether utilities or local-government should be liable for the cost to relocate utility poles when roadways are widened
E. The manner in which land owners are paid for transmission rights-of-way easements, as that is outside the jurisdiction of the Commission.

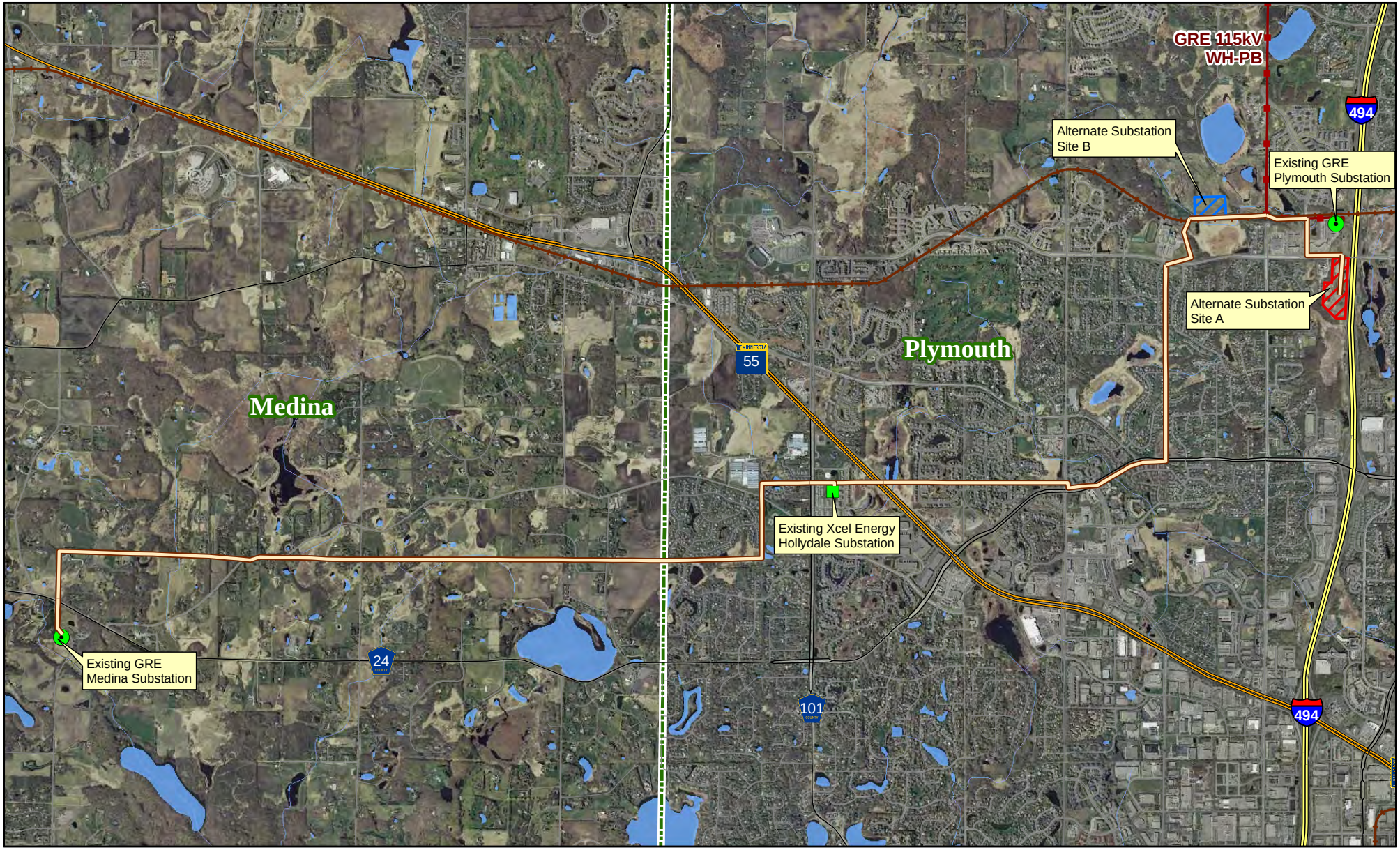
Schedule

The EA will be completed and available in February 2012. A public hearing will be held in the Plymouth/Medina area after the EA has been issued and notice served.

Signed this 7th day of December, 2011

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

William Grant, Deputy Commissioner



Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

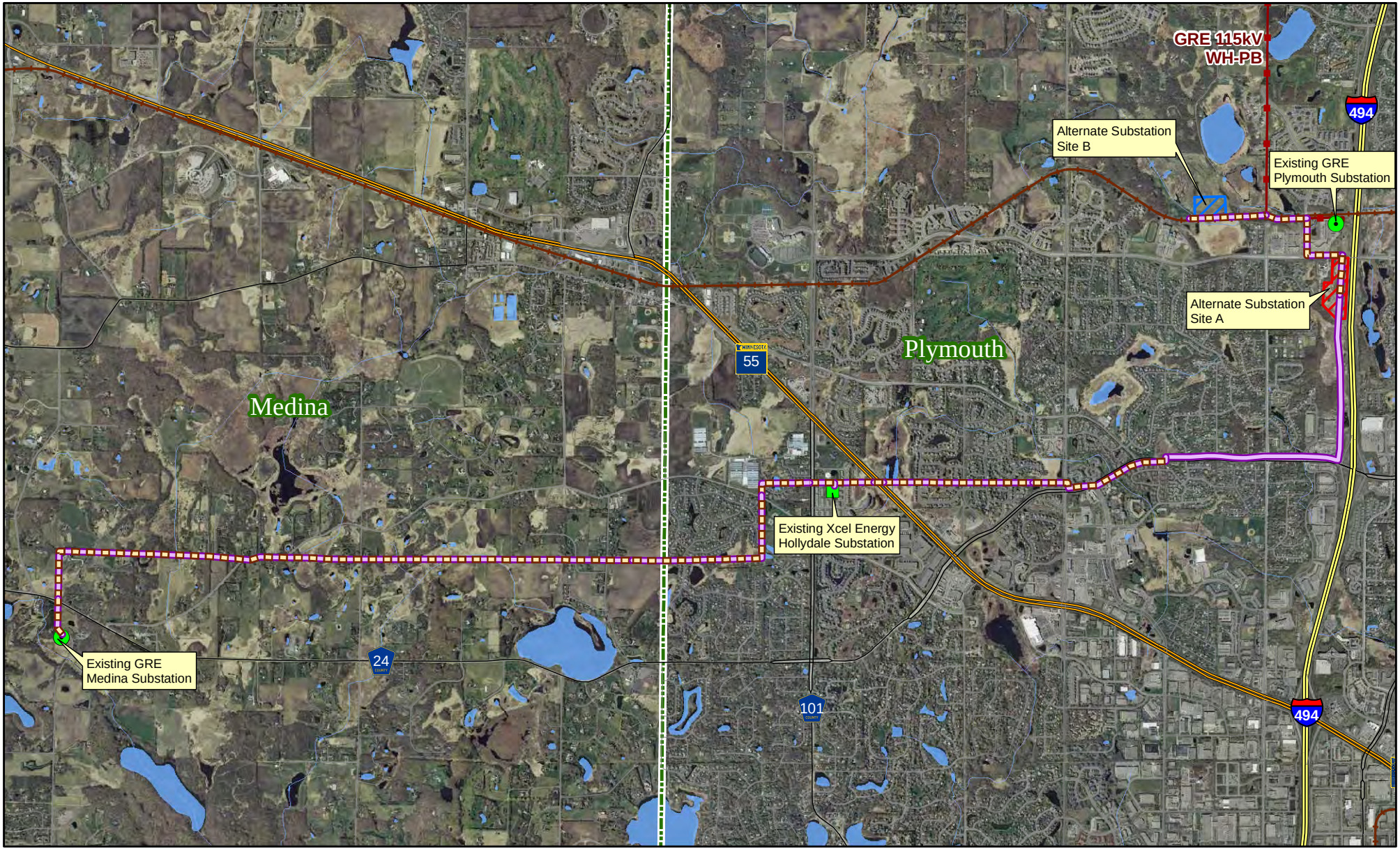
N

Feet
0 3,500 7,000

Figure 1

PROPOSED ROUTE
Hollydale 115 kVProject

Minnesota Department of Commerce



Alternative Route Segment A
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

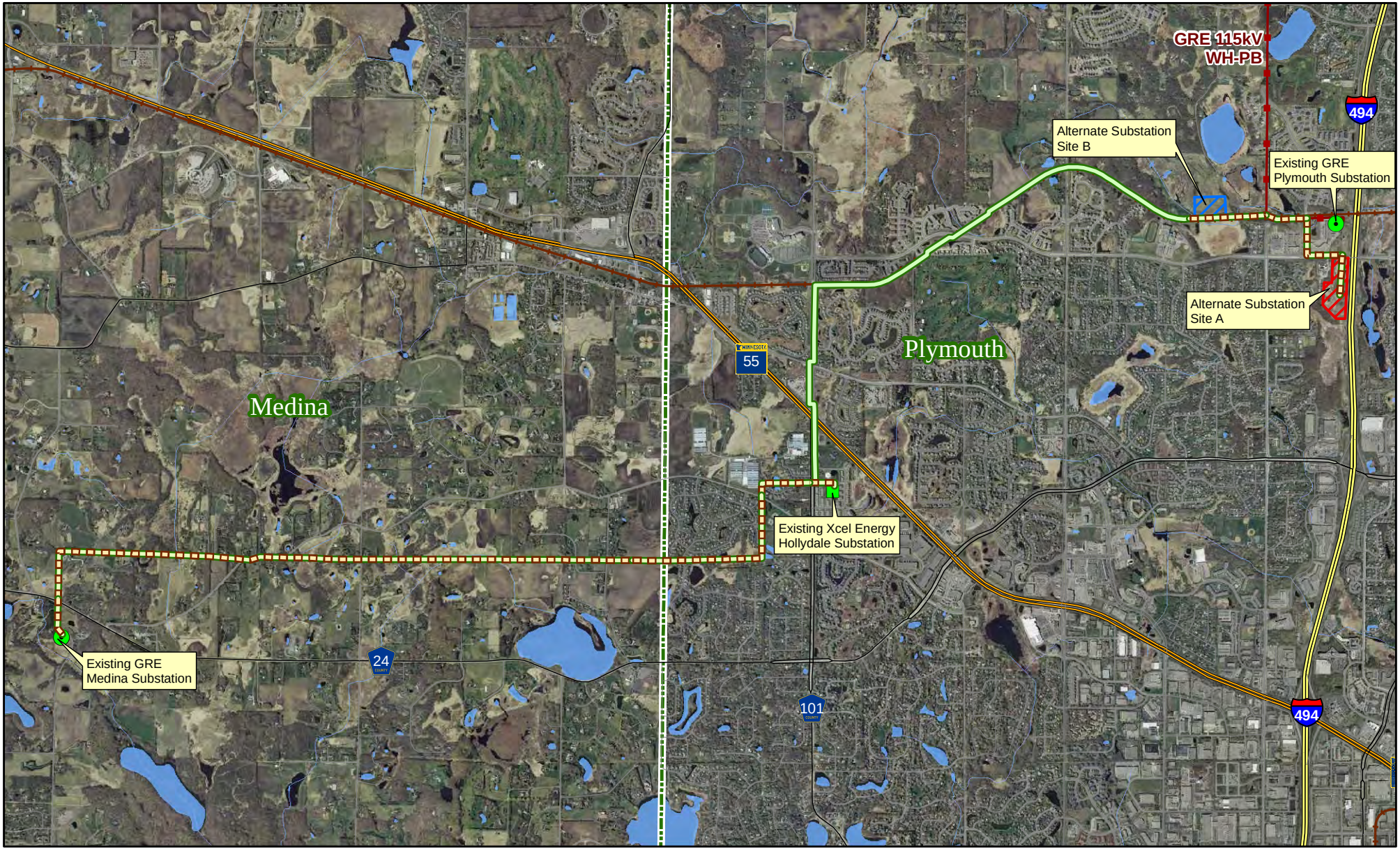
N

Feet
0 3,500 7,000

Figure 2

ALTERNATIVE ROUTE A
Hollydale Project

MINNESOTA DEPARTMENT OF COMMERCE



Alternative Route Segment B
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

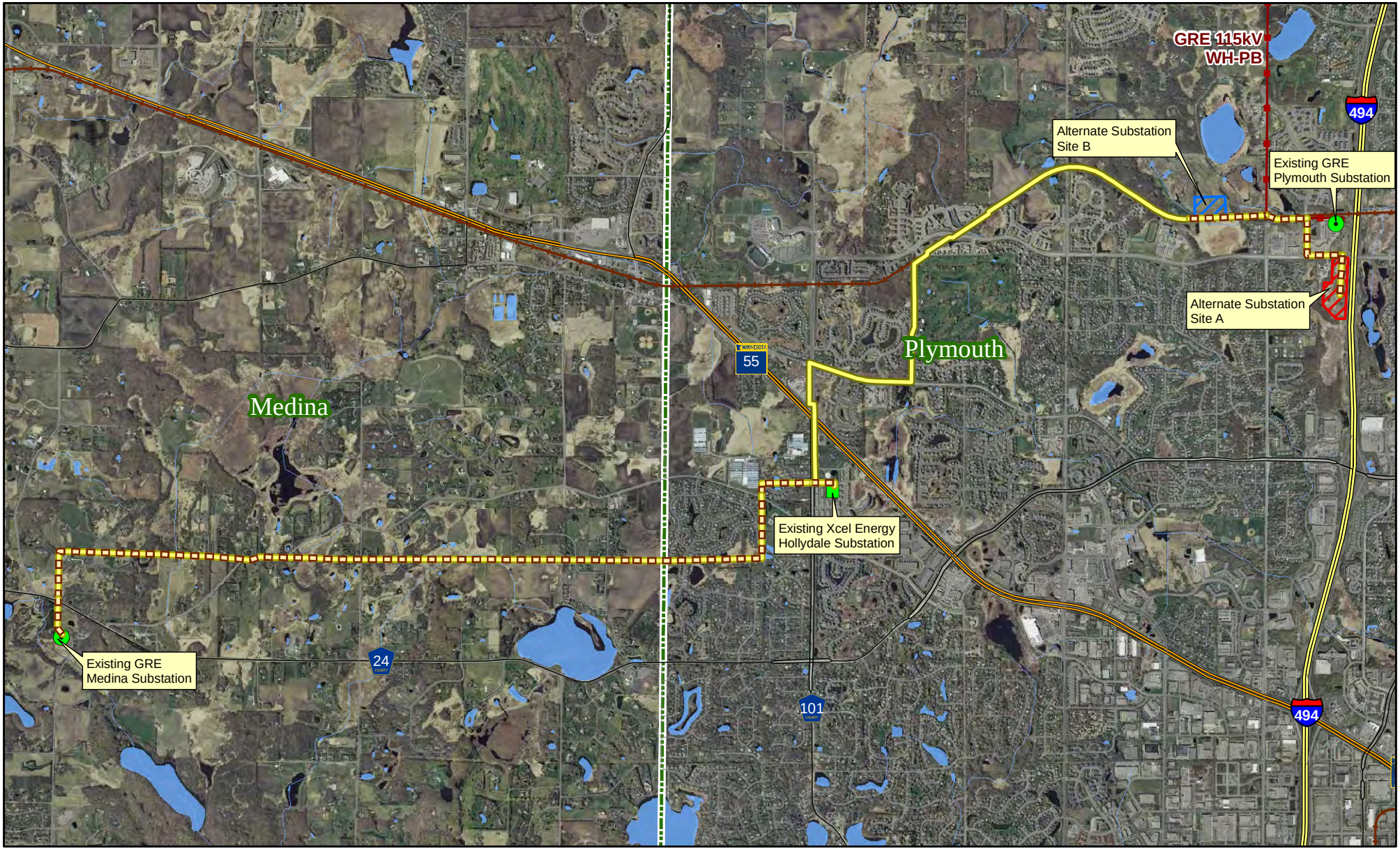
N

Feet
0 3,500 7,000

Figure 3

ALTERNATIVE ROUTE B
Hollydale Project

Minnesota Department of Commerce



ATF Alternative Route Segment B-1
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

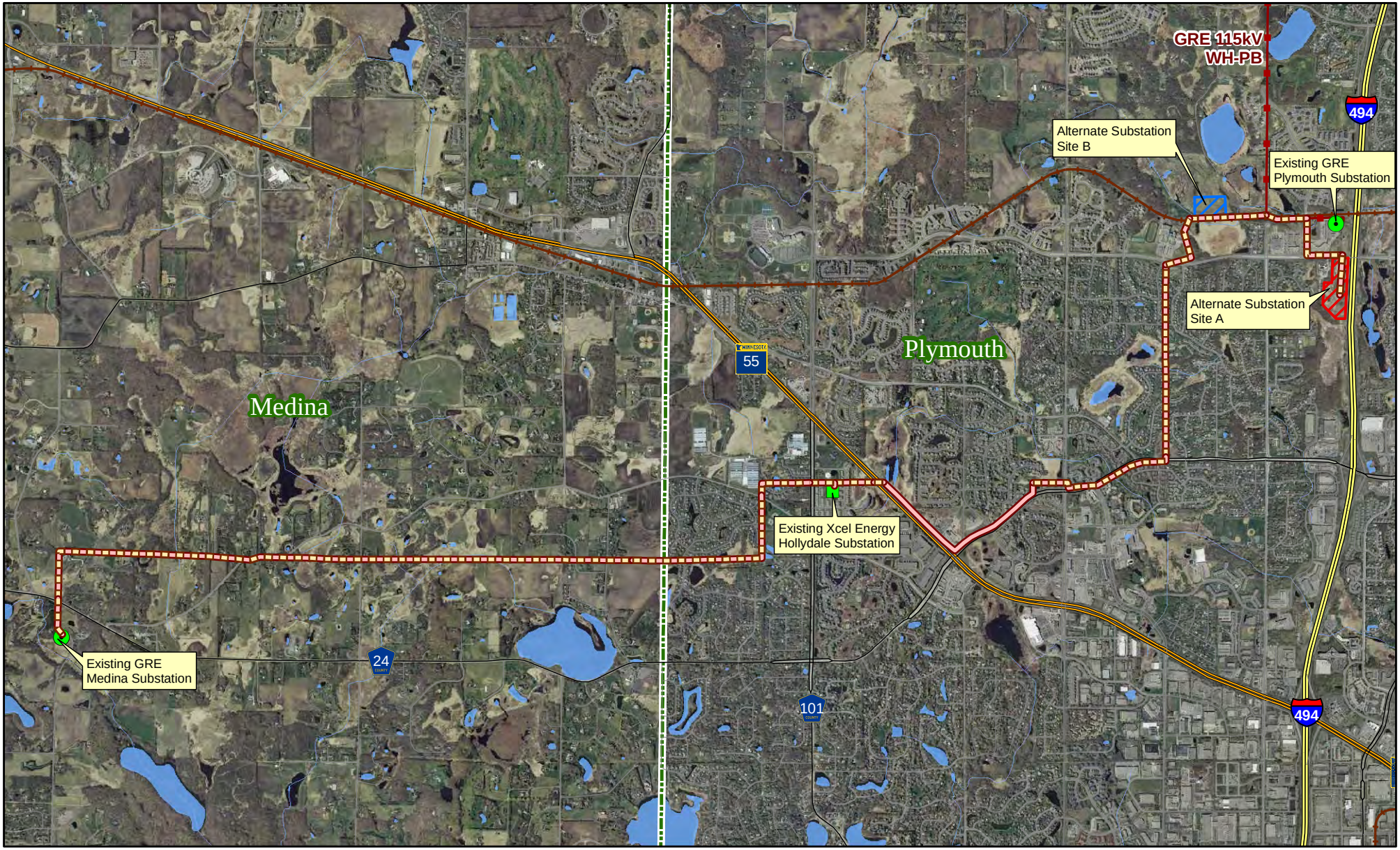
N

Feet
0 3,500 7,000

Figure 4

ATF ALTERNATIVE ROUTE B-1
Hollydale Project

Minnesota Department of Commerce



Alternative Route Segment C
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

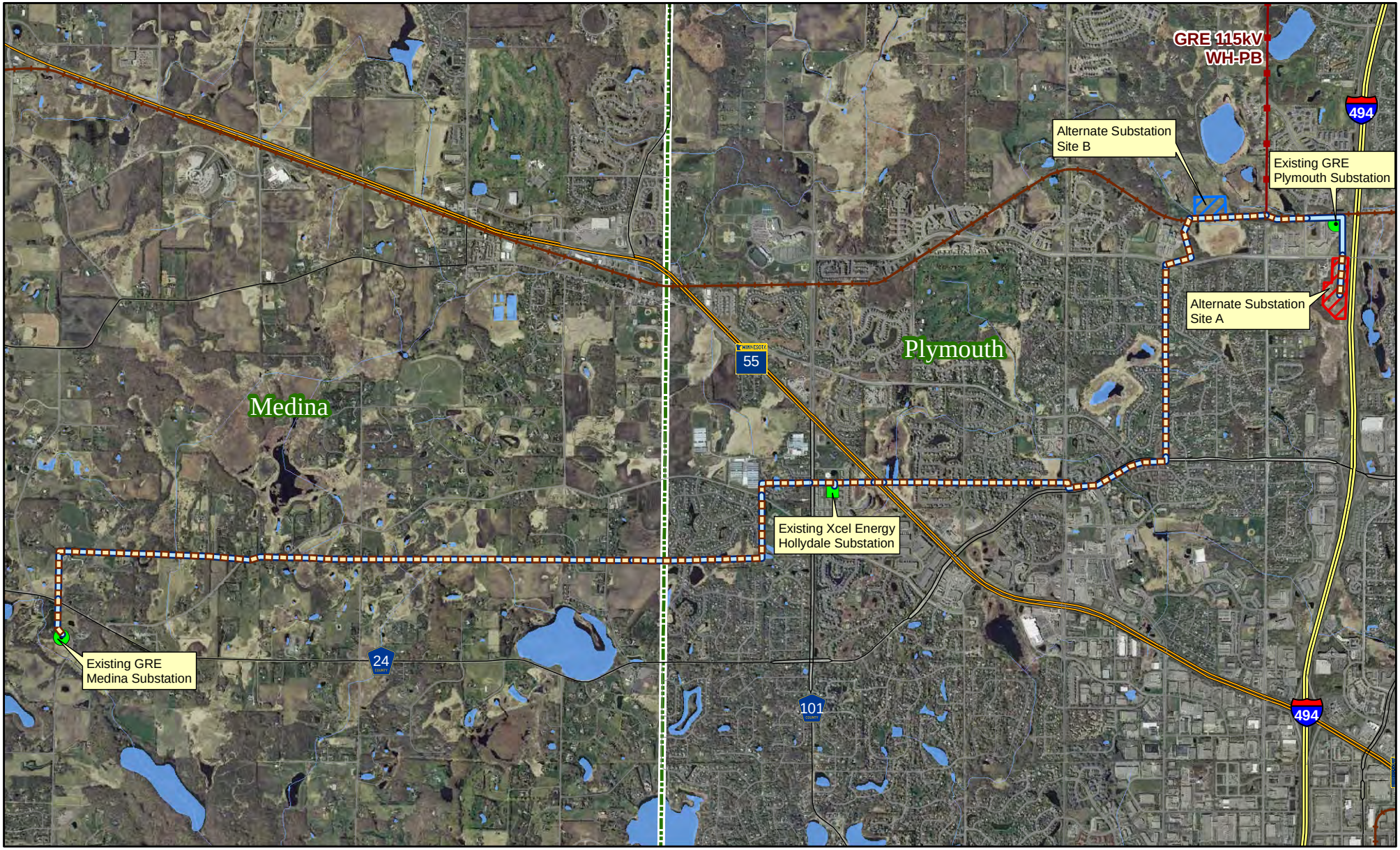
N

Feet
0 3,500 7,000

Figure 5

ALTERNATIVE ROUTE C
Hollydale Project

Minnesota Department of Commerce



Alternative Route Segment D
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

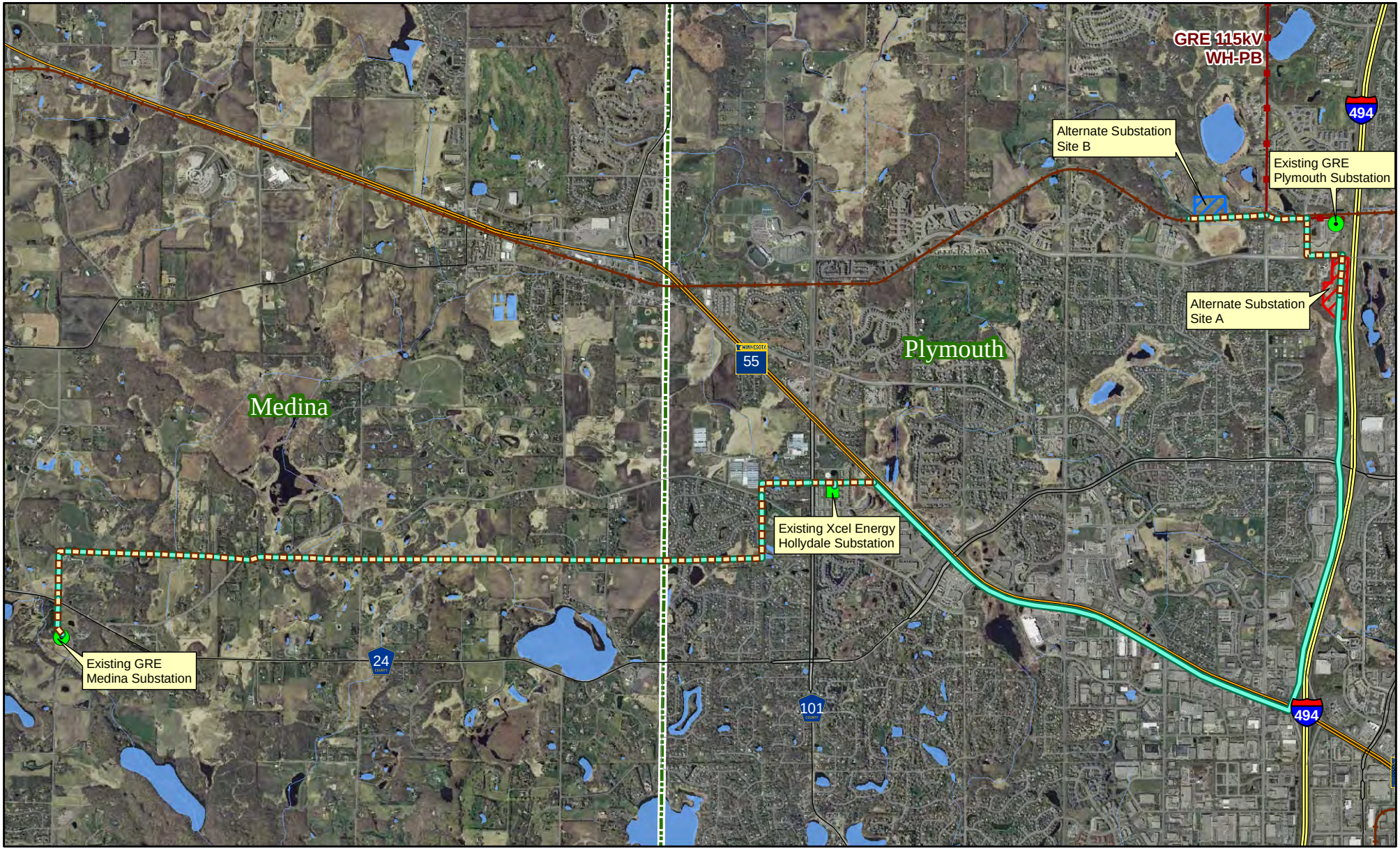
N

Feet
0 3,500 7,000

Figure 6

ALTERNATIVE ROUTE D
Hollydale Project

Minnesota Department of Commerce



ATF Alternative Route Segment E
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

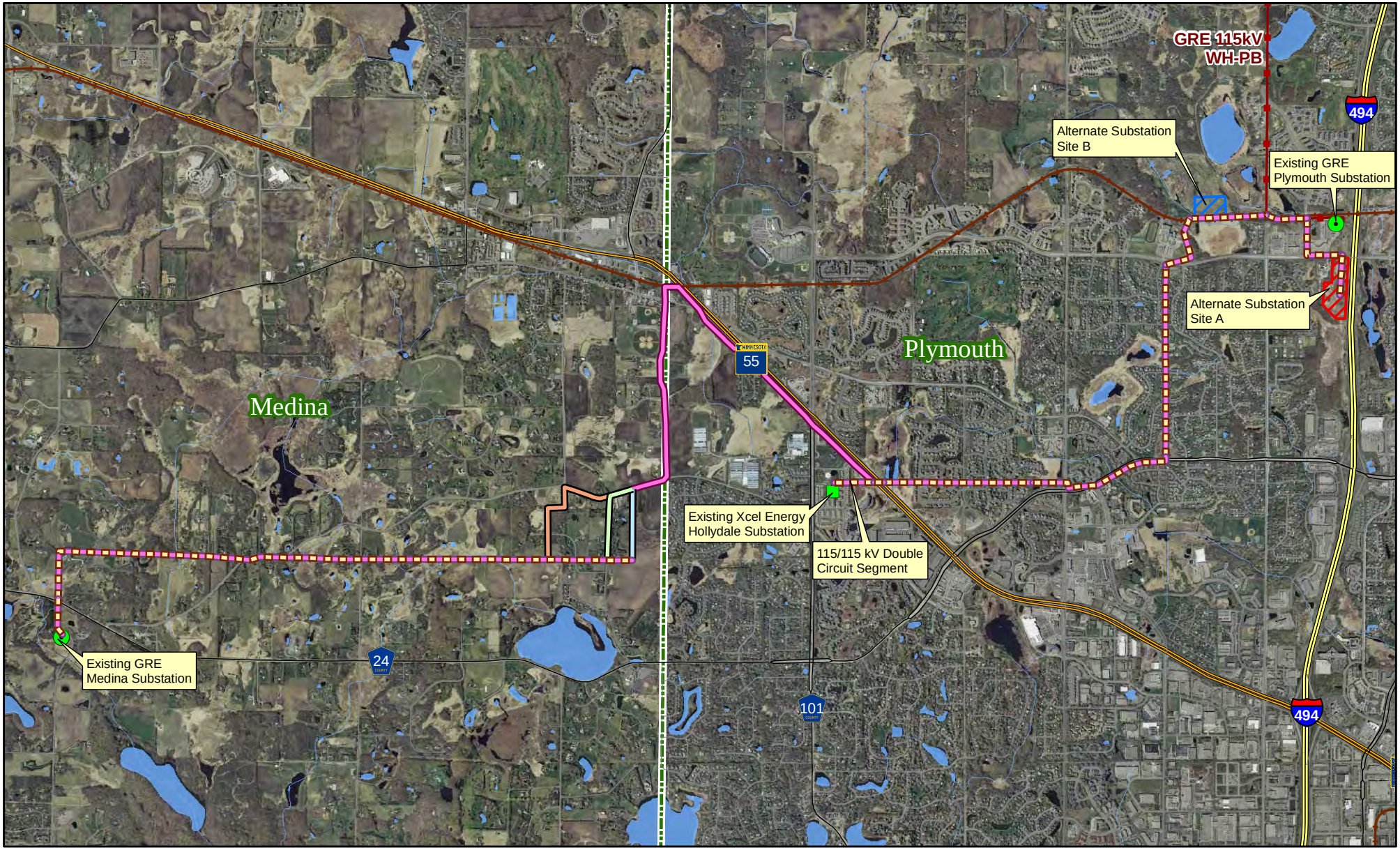
N

Feet
0 3,500 7,000

Figure 7

ATF ALTERNATIVE ROUTE E
Hollydale Project

Minnesota Department of Commerce



Alternative Route Segment F
Alternative Route Segment F-1
Alternative Route Segment F-2
Alternative Route Segment F-3
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

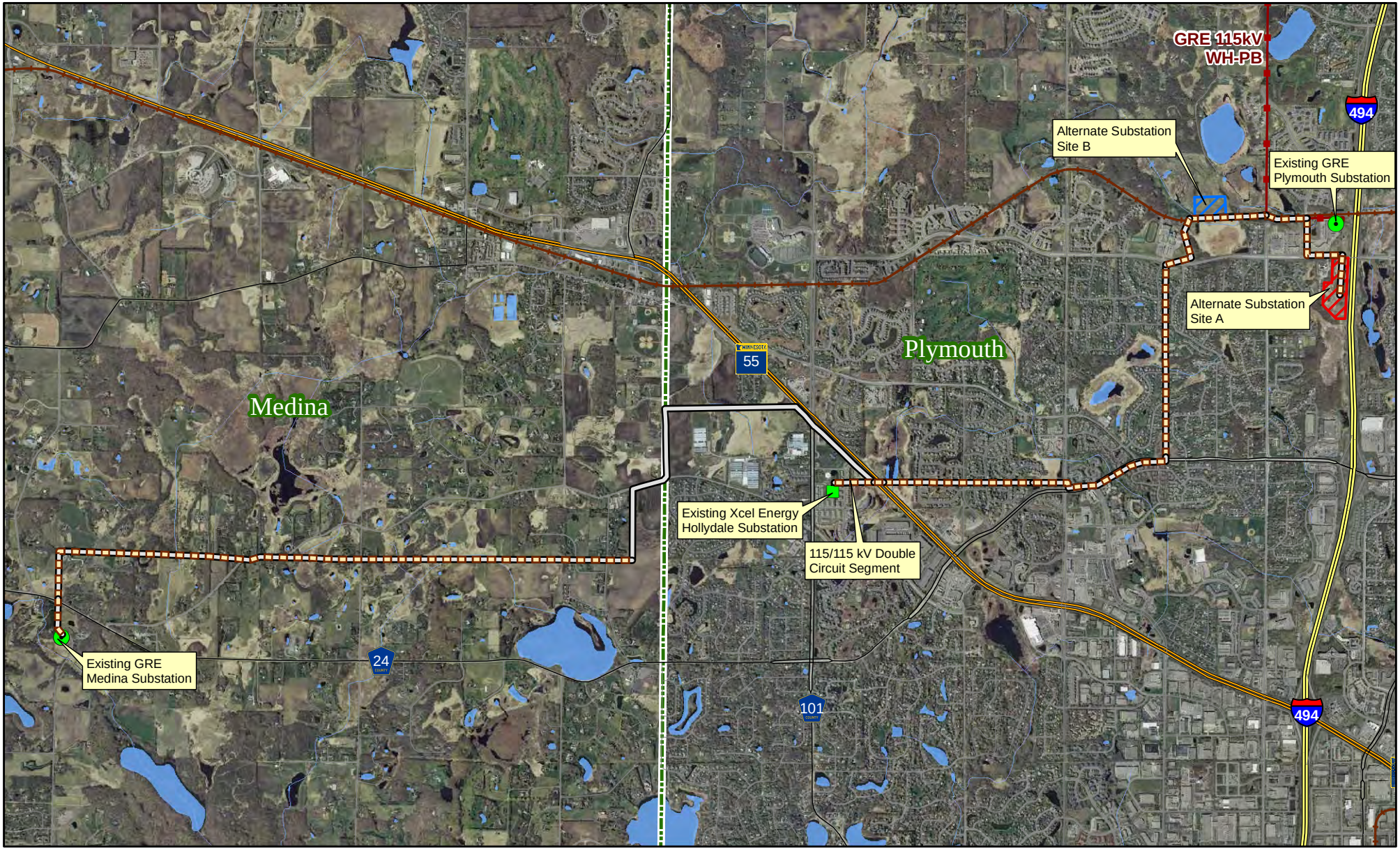
N

Feet
0 3,500 7,000

Figure 8

ALTERNATIVE ROUTE F
Hollydale Project

Minnesota Department of Commerce



Alternative Route Segment G
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

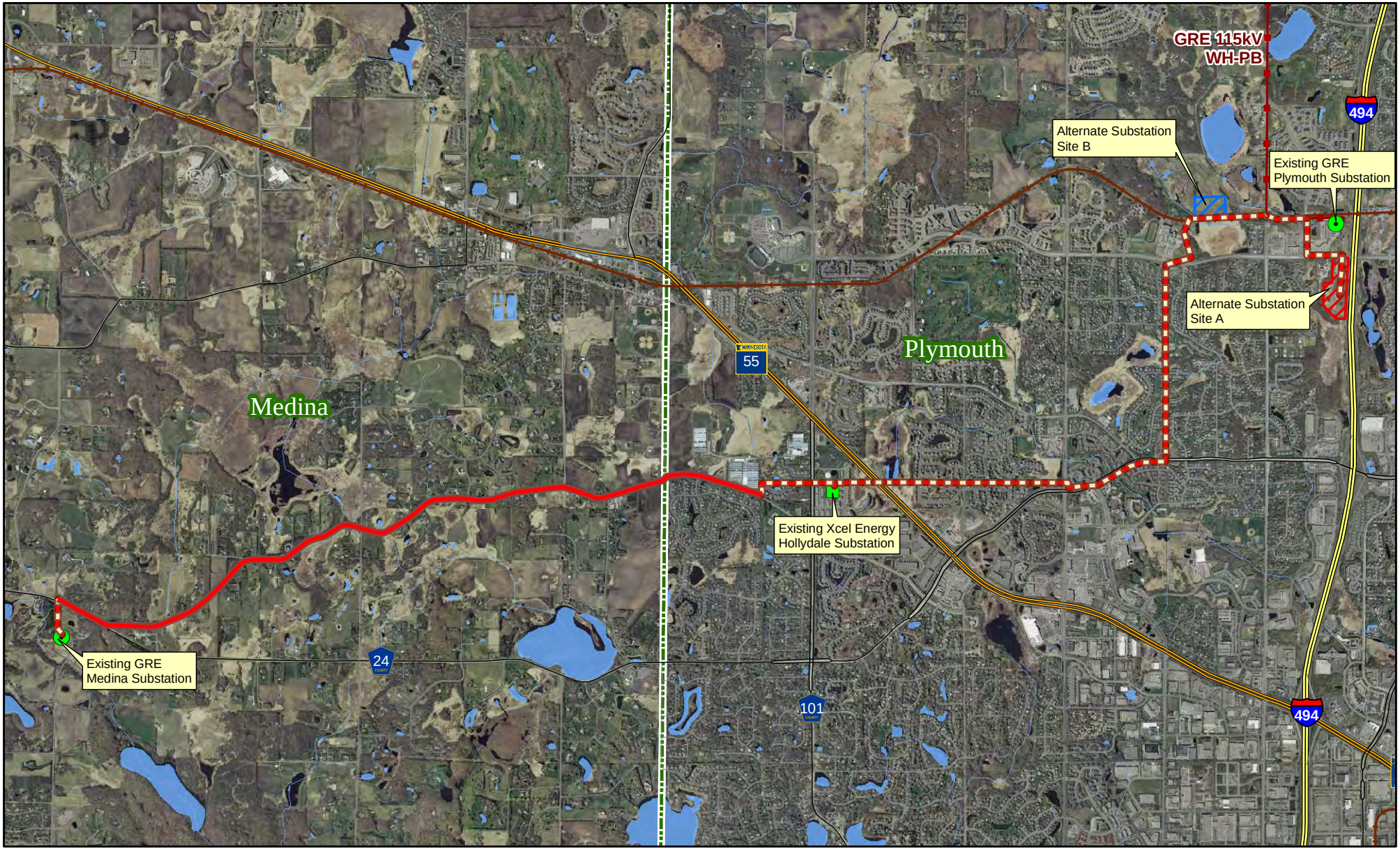
N

Feet
0 3,500 7,000

Figure 9

ALTERNATIVE ROUTE G
Hollydale Project

MINNESOTA DEPARTMENT OF COMMERCE



Medina Road Alternative Route Segment
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

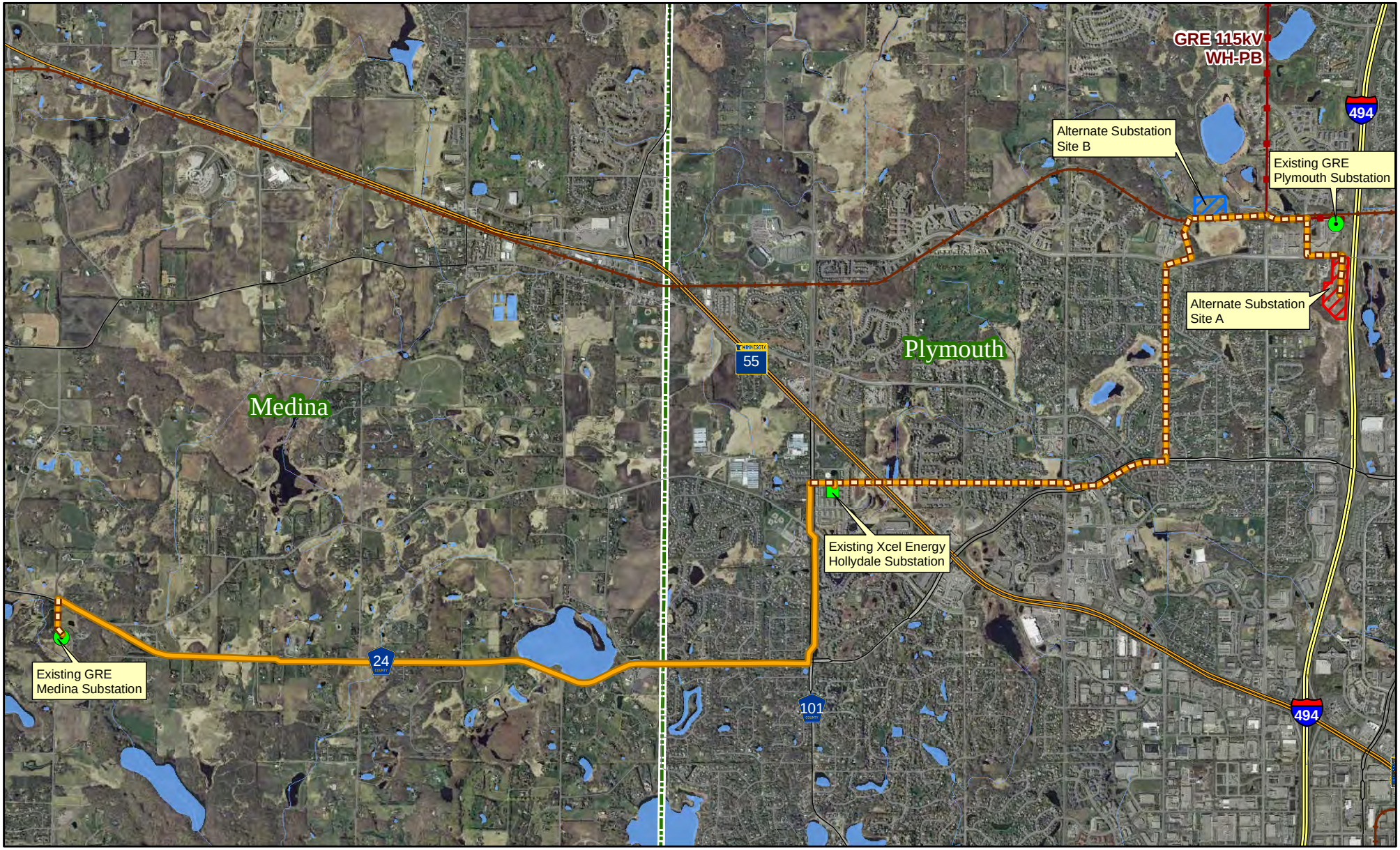
N

Feet
0 3,500 7,000

Figure 10

MEDINA ROAD ALTERNATIVE ROUTE
Hollydale Project

MINNESOTA DEPARTMENT OF COMMERCE



CSAH 24 Alternative Route Segment
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

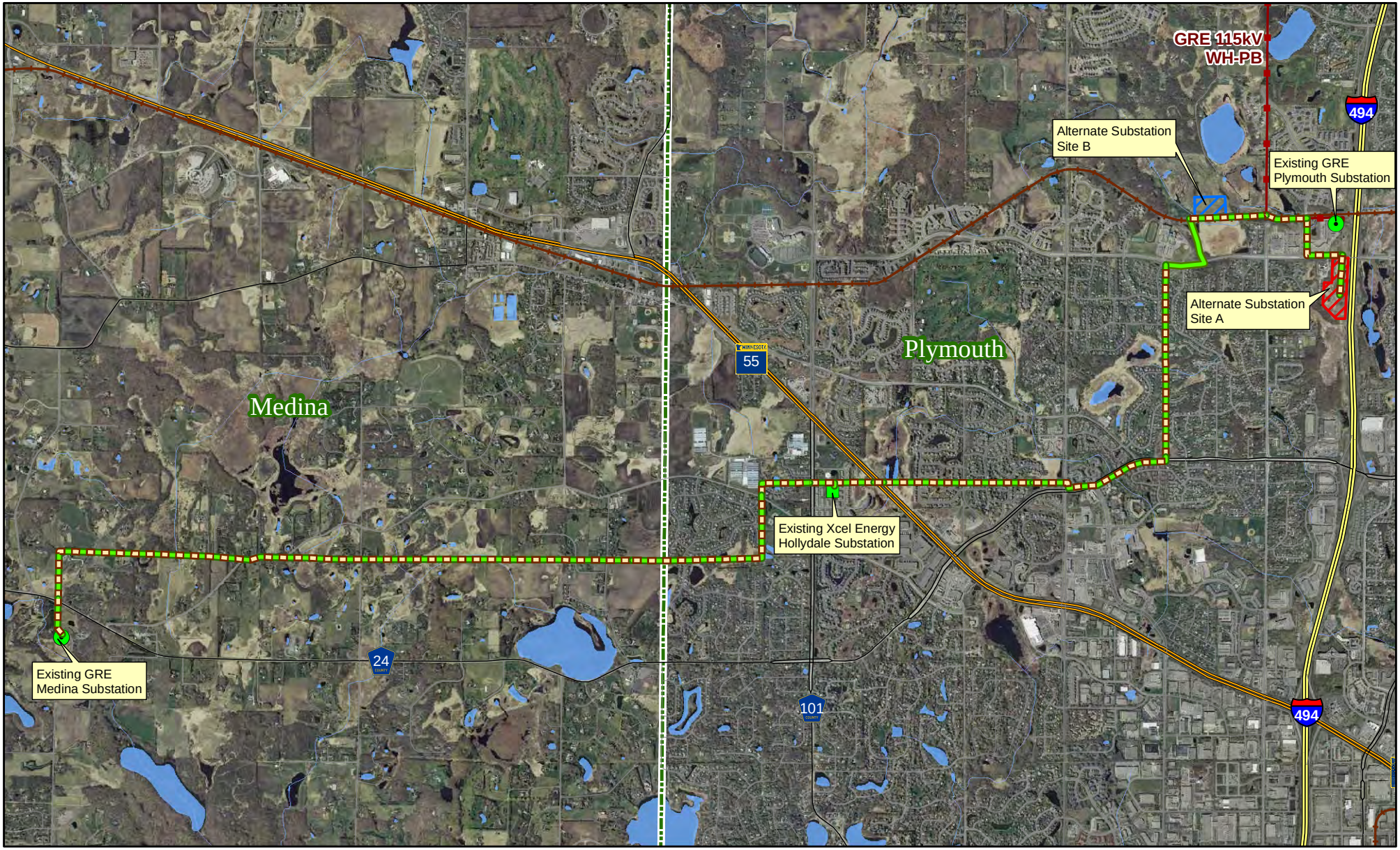
N

Feet
0 3,500 7,000

Figure 11

CSAH 24 ALTERNATIVE ROUTE
Hollydale Project

Minnesota Department of Commerce



Providence Academy Alternative Route Segment
Portion of Alternative Route Shared with Proposed Route
Proposed Route
Substation Site A
Substation Site B
Existing Xcel Energy Substation
Existing GRE Substation
GRE Transmission Line WH-PB
Railroad

N

Feet
0 3,500 7,000

Figure 12

PROVIDENCE ACADEMY ALTERNATIVE ROUTE
Hollydale Project

Minnesota Department of Commerce