

**From:** [Tami Carpenter](#)  
**To:** [Ek, Scott \(COMM\)](#); [Kirsch, Raymond \(COMM\)](#)  
**Cc:** ["Sedarski, Joseph G"](#); [mparlow@GREnergy.com](mailto:mparlow@GREnergy.com)  
**Subject:** Hollydale 115 kV Transmission Line Project in the Cities of Plymouth and Medina, Hennepin County  
**Date:** Wednesday, November 09, 2011 3:33:35 AM  
**Attachments:** [image002.png](#)  
[Appendix H - Summary of Impacts.pdf](#)  
[Appendix C - Maps C-1 to C-23.pdf](#)  
**Importance:** High

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Dear Mr. Ek and Mr. Kirsch,

I am a homeowner in both the Holly Creek Homes Development AND the Holly Creek Townhome Development, so I urge you to weigh what I feel is the primary reason Xcel is supporting the proposed path versus the alternate paths – COST. While the submitted documents have tables and rationale that would indicate cost is just “one of the factors considered in their decision”, if you take a hard look at each data element, the rationale for the “preferred route” is not supported by the data provided. As a matter of fact, if we truly look at the full table contained in the attached Appendix H and compare all of the data elements, Alternate Route Segment D and Alternate Route Segment B have the LEAST impact in all areas except farmland (impacted in Alternate Route Segment B). Since the preferred Substation Site appears to be Site A and the push is to use Routes A and C, I would like to focus on those areas and ask that Xcel document clear answers to the following questions given their data and associated rationale before these segments are approved. In my view, the data and rationale given for the “preferred routes A & C” do not make sense given the increased property and human impacts associated with these routes.

**Let's look at Preferred Segment C compared to Alternate Segment C as an example: (The arguments for Segment A are similar)**

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From a simple visual glance given the maps in the attached appendix C, it is clear that there are far more “yellow dots” within as few as 20ft from the proposed path. Every one of those dots represents a family that will be clearly impacted both from a financial and health perspective by the proposed route. If you look at the Alternate Route C, you see FAR FEWER yellow dots. It's not 0, so clearly there will still be some impact, but let's look at the facts. As a reference, I have copied the table of data provided by Xcel in the application for Segment C:

Criteria or Consideration	Proposed Route Segment C	Alternate Route Segment C
Cost Considerations		
Length (miles)	0.7	1.0
Percent of route sharing existing transmission line route	100%	0%
Percent of route paralleling existing highway right-of-way	0%	95%
Residential Considerations		
Residents within 0-35 feet	2	0
Residents within 35-50 feet	14	0
Residents within 50-100 feet	25	6
Residents within 100-200 feet	27	13
Non-Residential Buildings within 0-35 feet	0	0
Non-Residential Buildings within 35-50 feet	0	0
Non-Residential Buildings within 50-100 feet	0	0
Non-Residential Buildings within 100-200 feet	1	1
Private Schools within one mile	1	1
Public Schools within one mile	3	3
Child Care Centers within one mile	5	5
Communication Towers within 200 feet	0	0
Environmental Considerations		
Archaeological Sites (0.5 mile)	0	0
Historical Sites (0.5 mile)	9 total (8 razed)	8 total (7 razed)
Prime Farmland (acres) within 200 feet	0	0
Total Number of Watercourse Crossings	1	1
Total Number of Public Watercourse Crossings	1	1
Total Number of Public Water Basin Crossings	2	1
Total Length of Wetlands Crossed (feet)	1,513	1,223
Acres of Wetlands within 200 feet	14.1	10.2
FEMA Floodway (acres) within 200 feet	4.6	2.2
NHIS Species within one mile	0	0
NHIS Rare Communities within one mile	0	0
MCBS Site of Biodiversity Significance (acres) within 200 feet	0	0
Scientific & Natural Area (acres) within one mile	0	0
Snowmobile Trails (feet) within 200 feet	479	2,973

The proposed route C impacts 68 homes versus 19 and over 50% of the homes impacted in the proposed route are within just 100 feet of the route. The application states that “typical” right-of-way distances are 75ft for the 115kV line, so 16 families in the “preferred” route C are within the “typical” right of way distances. These residents would have no ability to utilize their property freely as there will always be the need to have access to these lines. On many of these homes, this is the backyard space. In the alternate route only 6 homes would be impacted at this magnitude versus 31.

I won't even attempt to argue the medial impacts of power lines because each side can find a study to debate either side, but the list below includes just a few of the many studies that are difficult to simply dismiss, so one would argue there is very good reason for health concerns and given this alone, why wouldn't we select a path that minimizes this potential impact if there is no other compelling reason?

List of Studies for Reference:

- According to a study in the [Internal Medicine Journal September 2007](#):– People who lived within 328 yards of a power line up to the age of five were five times more likely to develop cancer. Those who lived within the same range to a power line at any point during their first 15 years were three times more likely to develop cancer as an adult.
- The California Health Department issued their final report on power frequency EMF in October, 2002. This 7-year, \$9 million study concluded EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage. The Evaluation further concludes that magnetic fields may cause suicide and adult leukemia. This study used a standard of **causation**, which is a more rigorous test than the more common standard that seeks to demonstrate of an *association* between EMF and many of these diseases.
- A [major new study](#) which appeared in the June 2005 British Medical Journal, concludes there is a statistical link between EMF from power lines and leukemia. More specifically, this study found that children whose birth address was within 200 meters of an overhead power line had a 70% increased risk of leukemia. Children living 200 to 600 meters away from power lines had a 20% increased risk.
- Most European countries, including the UK and Germany have prohibited the construction of transmission power lines near homes for many years.
- The State of Connecticut passed by overwhelming margins in early May 2004 a law that requires power lines to be buried if they pass near residences, schools, hospitals and other sensitive facilities. As a followup, the Connecticut Council study showed that [burying long lines is feasible](#)

So what are the "other compelling reasons" for the "preferred segment C"? Xcel documented the following points for their rationale and I have added my commentary on each point:

Topic 1 - The route permit application indicates the proposed route is preferable to the Alternate because it maximizes the use of existing utility right of way and minimizes use of new right of way. I am struggling to understand this conclusion since Table 8 suggests that there is no real differential between the proposed route C and the Alternate route C when it comes to right of way. Yes the current route would use an existing transmission right of way, but the alternate route parallels existing highway right of way for 95% of the length. I do not consider either of these "preferred" for this attribute" since they both have right of way access, hence this is not a compelling reason to disrupt more families in my view.

Topic 2 – Impact to Nature - The wet lands impacted with the Alternate route is also marginally smaller. Xcel notes a "negative impact to snowmobile trails" with the alternate route, but this is ridiculous. The "snowmobile trail" is simply the ditch along the highway and since you cannot snowmobile through neighborhoods on either side

of this ditch until you reach the western side of Medina, I'm struggling to understand what snowmobilers would be impacted? (Just for reference, I am an avid snowmobiler and I would LOVE to use this "trail" but tell me – do I part my truck along HWY 55 to unload my sled and so I can access it?? The "sport impact" is not a valid argument for not utilizing the alternate route. Again – NOT a compelling reason for the "preferred" Segment C.

**The Application's conclusion versus my conclusion:**

On page 33 of the application, it *clearly notes the greater residence impact with the "preferred" versus alternate route C*, but this is offset with the comment that "no new impacts to these residences would occur from using the proposed route segment C". I am frankly insulted by this comment and take great exception to this conclusion. The existing 69kV lines are wood and while I didn't physically measure one, I suspect they fall into the standard 50-70 ft. height. The new poles will be nearly twice the height (75-105 ft), have a larger concrete base and be made of steel. In addition, the EMF values will be different. So I absolutely cannot agree that there is "no new impact". Would you want a 105ft steel pole 20 feet from your back door? Would you consider this "no new impact" on your home? The only real advantage I can see for the proposed route C versus the alternate route C is cost (\$8 million versus \$8.67 million) and this differential should NOT be the driving factor in the disruption of 68 homes versus 19 homes. As an additional point of reference, as I estimate distances looking at the photos in appendix B it would appear that 6 of the 19 homes on the alternate path would be impacted in either route. As a matter of fact, the costs associated with the various routes to Site A per Xcel are as follows:

Proposed Route to Preferred Substation Site A \$8.00  
Alternate Route Segment A to Preferred Substation Site A \$8.20  
Alternate Route Segment B to Preferred Substation Site A \$9.48  
Alternate Route Segment C to Preferred Substation Site A \$8.67  
Alternate Route Segment D to Preferred Substation Site A \$8.23

Given the fact that the "preferred" route is the "cheapest" route, is there ANY doubt that the REAL reason for its preference/selection, is cost?

Certainly business revenue is important, but since I can see no viable reason other than cost for Xcel to select the "preferred" segments C and A. Are we truly willing as a society to accept this rationale and look the impacted families in the eye and say - saving Xcel money is more important than their potential future health or home value? Is reasonable to say "we shouldn't make Xcel spend more on this project", given the fact that the Chairman & CEO of Xcel, Mr. Richard Kelly. Has a total compensation in 2010 of \$7,024,885? (Per the Star & Tribune, April 2010) Is it more important to put the profits of Xcel above the health and well being of the very people paying for the services of Xcel? As our government leaders, I urge you to really take each data point used for selecting the preferred paths and ask yourself – is this REALLY a reason to impact the health and well being of MORE families. I feel strongly that if the data elements are evaluated without the cost bias, you will see that the alternate routes are actually the ones that impact the future financial and health well being of FAR FEWER families and hence should be chosen as the "preferred routes" for this project.

Sincerely,  
Tami M. Carpenter

**Appendix H**  
**Summary of Impacts**

**H-1**

**Proposed Route and Proposed and Alternate Route Segments**

Feature	Distance from Centerline	Rebuild Portion of 115 kV Line (Medina Substation to Intersection with GRE 115 kV Line WH-PB)	New Portion of 115 kV Line (Intersection with GRE 115 kV Line WH-PB and Preferred Substation Site A)	Proposed Route Segment A	Alternate Route Segment A	Proposed Route Segment B	Alternate Route Segment B	Proposed Route Segment C	Alternate Route Segment C	Proposed Route Segment D	Alternate Route Segment D
<b>Residences</b> (# of features)	35 ft	13	0	7	1	10	0	2	0	0	0
	50 ft	63	0	20	6	44	3	16	0	0	0
	100 ft	167	0	62	11	123	4	41	6	0	0
	200 ft	286	0	90	33	202	105	68	19	0	0
<b>Non-Residential</b> (# of features)	35 ft	6	0	2	1	2	0	0	0	0	0
	50 ft	9	0	2	1	2	0	0	0	0	0
	100 ft	12	1	4	3	4	3	0	0	1	1
	200 ft	22	5	10	5	8	5	1	1	5	1
<b>Private Schools</b> (# of features)	1mi	4	0	3	4	4	2	2	1	1	1
<b>Public Schools</b> (# of features)	1mi	3	0	1	1	3	3	3	3	0	0
<b>Child Care Center</b> (# of features)	1mi	6	4	4	4	6	2	4	4	2	1
<b>Towers</b> (# of features)	35 ft	0	0	0	0	0	0	0	0	0	1
	50 ft	0	0	0	0	0	0	0	0	0	1
	100 ft	1	0	0	0	0	0	0	0	0	1
	200 ft	2	1	1	0	1	0	0	0	1	3
<b>Historical Features</b> (# of features)	0.5 mi	16 total (14 razed)	1 total (1 razed)	1 total (1 razed)	2 total (2 razed)	12 total (11 razed)	7 total (6 razed)	9 total (8 razed)	8 total (7 razed)	1 total (1 razed)	1 total (1 razed)
<b>Archaeological Features</b> (# of features)	0.5 mi	0	0	0	0	0	0	0	0	0	0
<b>Prime Farmland</b> (# of acres)	35 ft	6.08 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
	50 ft	8.73 ac	0 ac	0 ac	0 ac	0 ac	0.02 ac	0 ac	0 ac	0 ac	0 ac
	100 ft	18.14 ac	0 ac	0 ac	0 ac	0 ac	1.34 ac	0 ac	0 ac	0 ac	0 ac
	200 ft	38.60 ac	0 ac	0 ac	0 ac	0 ac	6.89 ac	0 ac	0 ac	0 ac	0 ac
<b>Watercourses</b> (# of features)	35 ft	10	2	5	1	4	2	2	1	1	1
	50 ft	10	2	5	1	4	2	2	1	1	1
	100 ft	10	2	5	1	4	2	2	1	1	1
	200 ft	10	2	5	1	5	3	2	1	1	2
	Number of crossings	9	2	5	1	3	2	1	1	1	1
<b>PWI Watercourses</b> (# of features)	35 ft	5	2	4	0	3	1	2	1	1	1
	50 ft	5	2	4	0	3	1	2	1	1	1
	100 ft	5	2	4	0	3	1	2	1	1	1
	200 ft	5	2	4	0	4	2	2	1	1	2
	Number of crossings	4	2	4	0	2	1	1	1	1	1
<b>PWI Basins</b> (# of acres)	35 ft	3.92 ac	0 ac	0.95 ac	1.55 ac	2.77 ac	0.38 ac	1.79 ac	1.44 ac	0 ac	0 ac
	50 ft	5.58 ac	0 ac	1.35 ac	2.27 ac	3.93 ac	0.72 ac	2.55 ac	1.94 ac	0 ac	0 ac
	100 ft	11.12 ac	0 ac	2.75 ac	4.82 ac	7.85 ac	1.98 ac	5.04 ac	3.11 ac	0 ac	0 ac
	200 ft	21.63 ac	0 ac	6.04 ac	10.17 ac	15.82 ac	6.15 ac	9.49 ac	5.67 ac	0 ac	0 ac
	Number of crossings	4	0	1	1	3	1	2	1	0	0

Feature	Distance from Centerline	Rebuild Portion of 115 kV Line (Medina Substation to Intersection with GRE 115 kV Line WH-PB)	New Portion of 115 kV Line (Intersection with GRE 115 kV Line WH-PB and Preferred Substation Site A)	Proposed Route Segment A	Alternate Route Segment A	Proposed Route Segment B	Alternate Route Segment B	Proposed Route Segment C	Alternate Route Segment C	Proposed Route Segment D	Alternate Route Segment D
<b>Wetlands</b> (# of acres)	35 ft	17.89 ac	1.40 ac	5.57 ac	3.91 ac	6.81 ac	1.74 ac	2.60 ac	1.58 ac	0.29 ac	0.20 ac
	50 ft	25.03 ac	1.97 ac	7.39 ac	5.40 ac	9.61 ac	2.72 ac	3.68 ac	2.18 ac	0.41 ac	0.28 ac
	100 ft	48.30 ac	3.86 ac	13.43 ac	10.06 ac	18.77 ac	7.67 ac	7.28 ac	4.21 ac	0.89 ac	0.51 ac
	200 ft	93.12 ac	6.72 ac	27.61 ac	18.33 ac	35.47 ac	20.24 ac	14.08 ac	10.18 ac	2.61 ac	1.08 ac
<b>FEMA Floodway</b> (# of acres)	35 ft	7.51 ac	0.02 ac	0.83 ac	0 ac	2.48 ac	0 ac	0.56 ac	0.11 ac	0 ac	0 ac
	50 ft	10.84 ac	0.05 ac	1.17 ac	0 ac	3.61 ac	0 ac	0.82 ac	0.15 ac	0 ac	0 ac
	100 ft	22.46 ac	0.33 ac	2.65 ac	0 ac	7.44 ac	0 ac	1.82 ac	0.33 ac	0 ac	0 ac
	200 ft	48.07 ac	2.19 ac	7.50 ac	0 ac	15.55 ac	0 ac	4.57 ac	2.18 ac	0 ac	0 ac
<b>NHIS - Species</b> (# of acres)	1 mi	6	0	0	2	0	0	18	0	0	0
<b>NHIS - Rare communities</b> (# of features)	1 mi	3	1	2	1	2	3	8	0	1	1
<b>MCBS Site of Biodiversity Significance</b> (# of acres)	35 ft	0.63 ac	0 ac	0 ac	1.45 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
	50 ft	0.92 ac	0 ac	0 ac	2.04 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
	100 ft	2.0 ac	0 ac	0 ac	3.83 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
	200 ft	4.38 ac	0 ac	0 ac	5.62 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
<b>Scientific &amp; Natural Area</b> (# of acres)	1mi	58.73 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac	0 ac
<b>Snowmobile Trails</b> (# of feet)	35 ft	200 ft		0 ft	0 ft	200 ft	202 ft	76 ft	2538 ft	0 ft	0 ft
	50 ft	285 ft		0 ft	0 ft	285 ft	288 ft	113 ft	2652 ft	0 ft	0 ft
	100 ft	570 ft		0 ft	0 ft	570 ft	576 ft	235 ft	2767 ft	0 ft	0 ft
	200 ft	1139 ft		0 ft	0 ft	1139 ft	1322 ft	479 ft	2973 ft	0 ft	0 ft

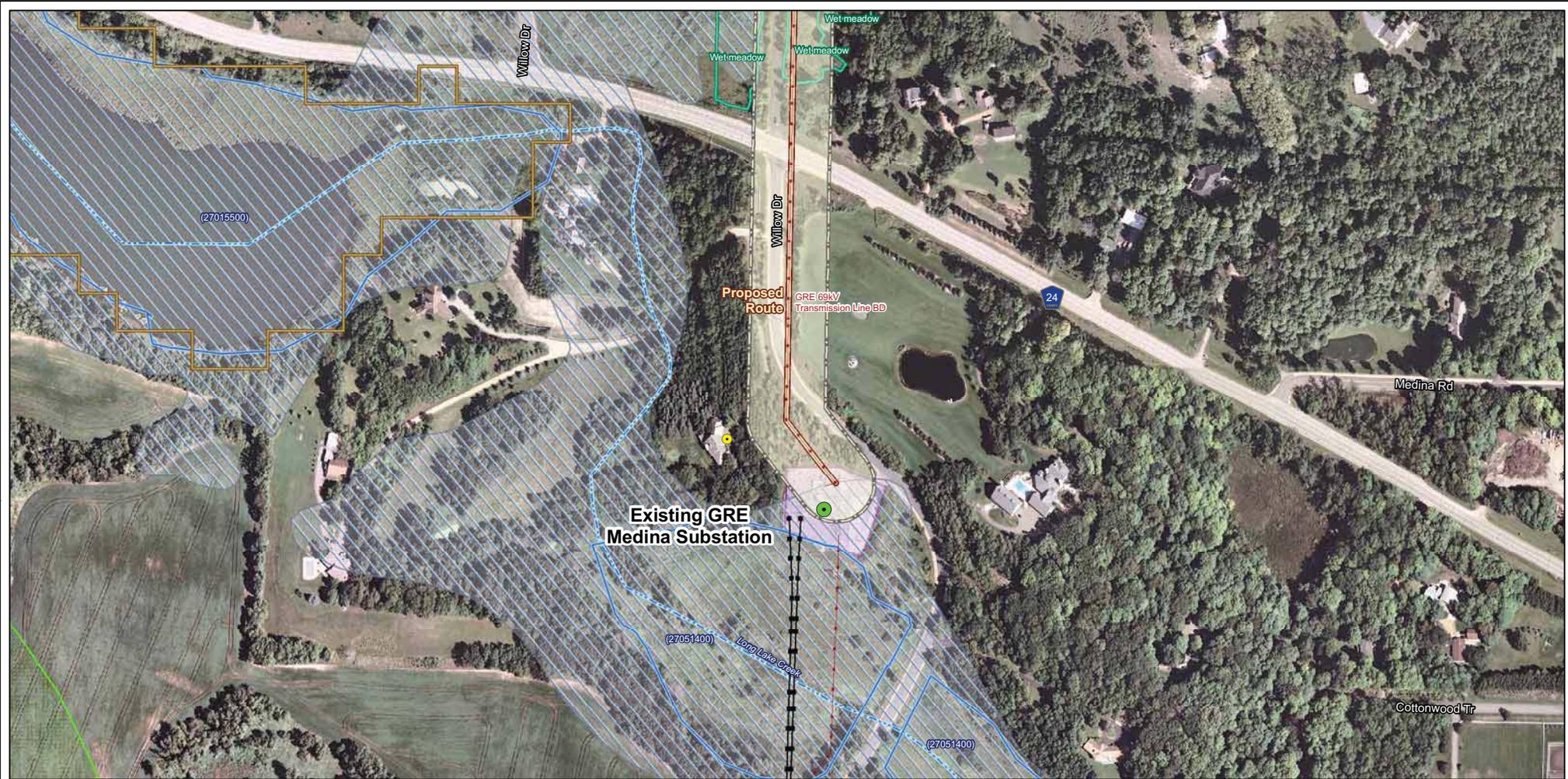
**H-2**

**Substation Sites A and B**

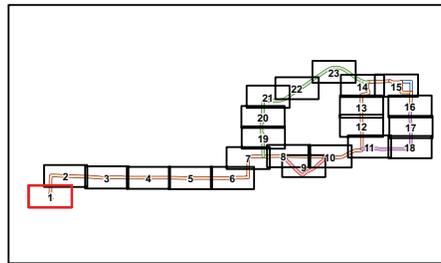
<b>Feature</b>	<b>Distance</b>	<b>Substation Site A</b>	<b>Substation Site B</b>
<b>Residences</b> (# of features)	35 ft 50 ft 100 ft 200 ft	0 0 0 0	0 0 0 0
<b>Non-Residential</b> (# of features)	35 ft 50 ft 100 ft 200 ft	0 0 1 3	0 0 0 0
<b>Private Schools</b> (# of features)	1mi	1	2
<b>Public Schools</b> (# of features)	1mi	0	0
<b>Child Care Center</b> (# of features)	1mi	2	0
<b>Towers</b> (# of features)	Within siting Area Within 200 ft	0 0	0 0
<b>Historical Features</b> (# of features)	0.5 mi	2 total (2 razed)	0
<b>Archaeological Features</b> (# of features)	0.5 mi	0	0
<b>Prime Farmland</b> (# of acres)	Within siting Area Within 200 ft	0 ac 0 ac	0 ac 0 ac
<b>Watercourses</b> (# of features)	Within siting Area Within 200 ft	0 0	1 1
<b>PWI Watercourses</b> (# of features)	Within siting Area Within 200 ft	0 0	1 1
<b>PWI Basins</b> (# of acres)	Within siting Area Within 200 ft	0 0.16 ac	0 0
<b>Wetlands</b> (# of acres)	Within siting area	3.5	3.2
<b>FEMA Floodway</b> (# of acres)	Within siting area	0	0
<b>NHIS - Species</b> (# of features)	1 mi	0	0
<b>NHIS - Rare communities</b> (# of features)	1 mi	1	2
<b>MCBS Site of Biodiversity</b>			
<b>Significance</b> (# of acres)	Within siting Area Within 200 feet	0 ac 0 ac	0 ac 0 ac
<b>Scientific &amp; Natural Area</b> (# of acres)	Within siting Area Within 1 mile	0 ac	0 ac
<b>Snowmobile Trails</b> (# of feet)	Within siting Area Within 200 ft	0 ft 0 ft	0 ft 0 ft

## **Appendix C**

### **Detailed Route Maps**



- |                           |  |   |                           |  |  |
|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | 115 kV                                 | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | Existing Xcel Energy Transmission Line | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



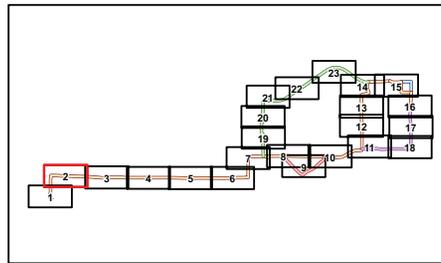
**Figure C-1**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





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|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | Existing Xcel Energy Transmission Line | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | 115 kV                                 | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



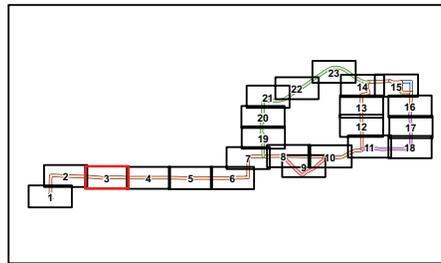
**Figure C-2**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





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|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | 115 kV                                 | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | Existing Xcel Energy Transmission Line | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



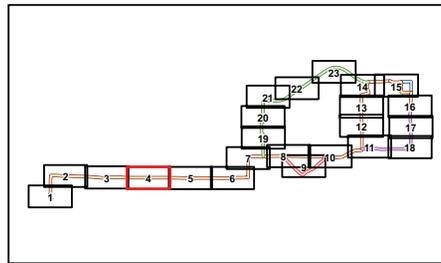
**Figure C-3**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
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|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | 115 kV                                 | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | Existing Xcel Energy Transmission Line | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



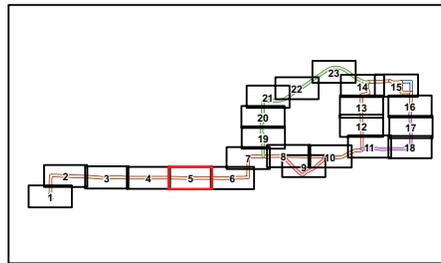
**Figure C-4**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
\*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
Background: 2009 Aerial Express Imagery for the Twin Cities.





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|---------------------------|--|---|---------------------------|--|---|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area            |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                       |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance           |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                             |
| Alternate Route Segment D | Existing Xcel Energy Transmission Line | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie               |
| Proposed Route Segment A  | 115 kV                                 | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                        |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           | Terrestrial Community  | Terrestrial Community -<br>Element Occurance Area |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  |   |
| Proposed Route Segment D  | Railroad                               |   |                           |  |   |



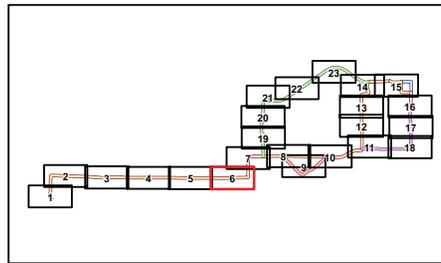
**Figure C-5**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





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|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | Existing Xcel Energy Transmission Line | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | 115 kV                                 | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



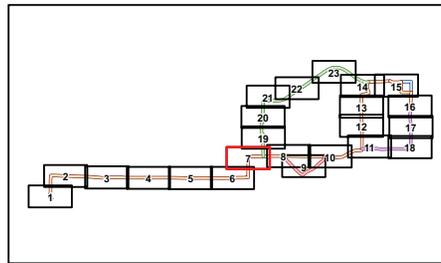
**Figure C-6**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





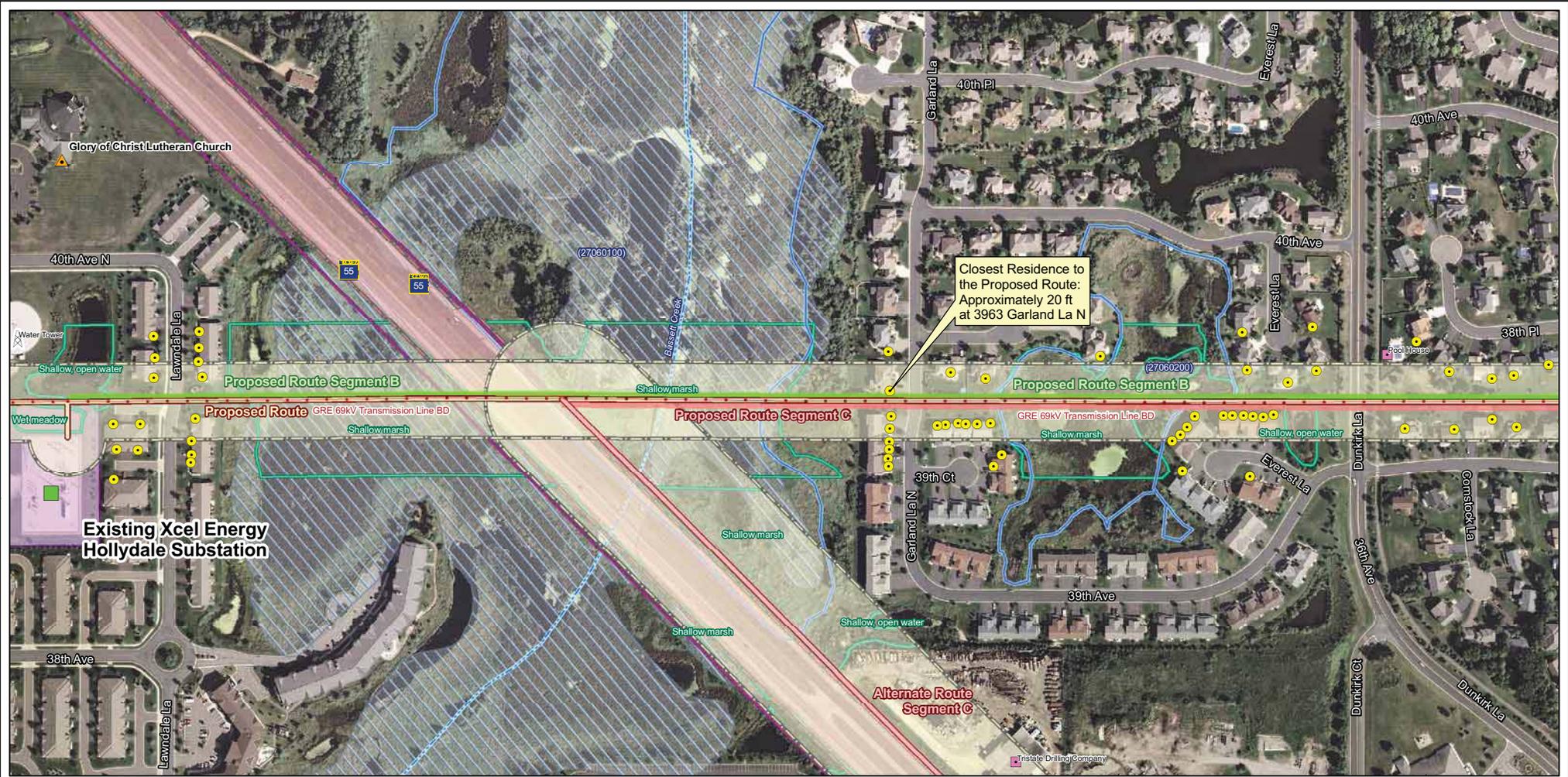
- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot ROW
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin (Clipped to 200 Feet of Centerline)
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area



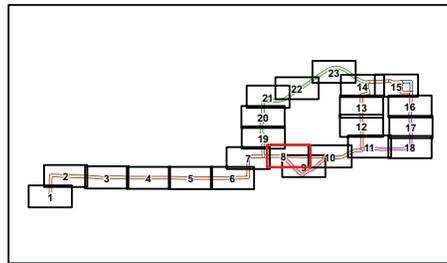
**Figure C-7**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





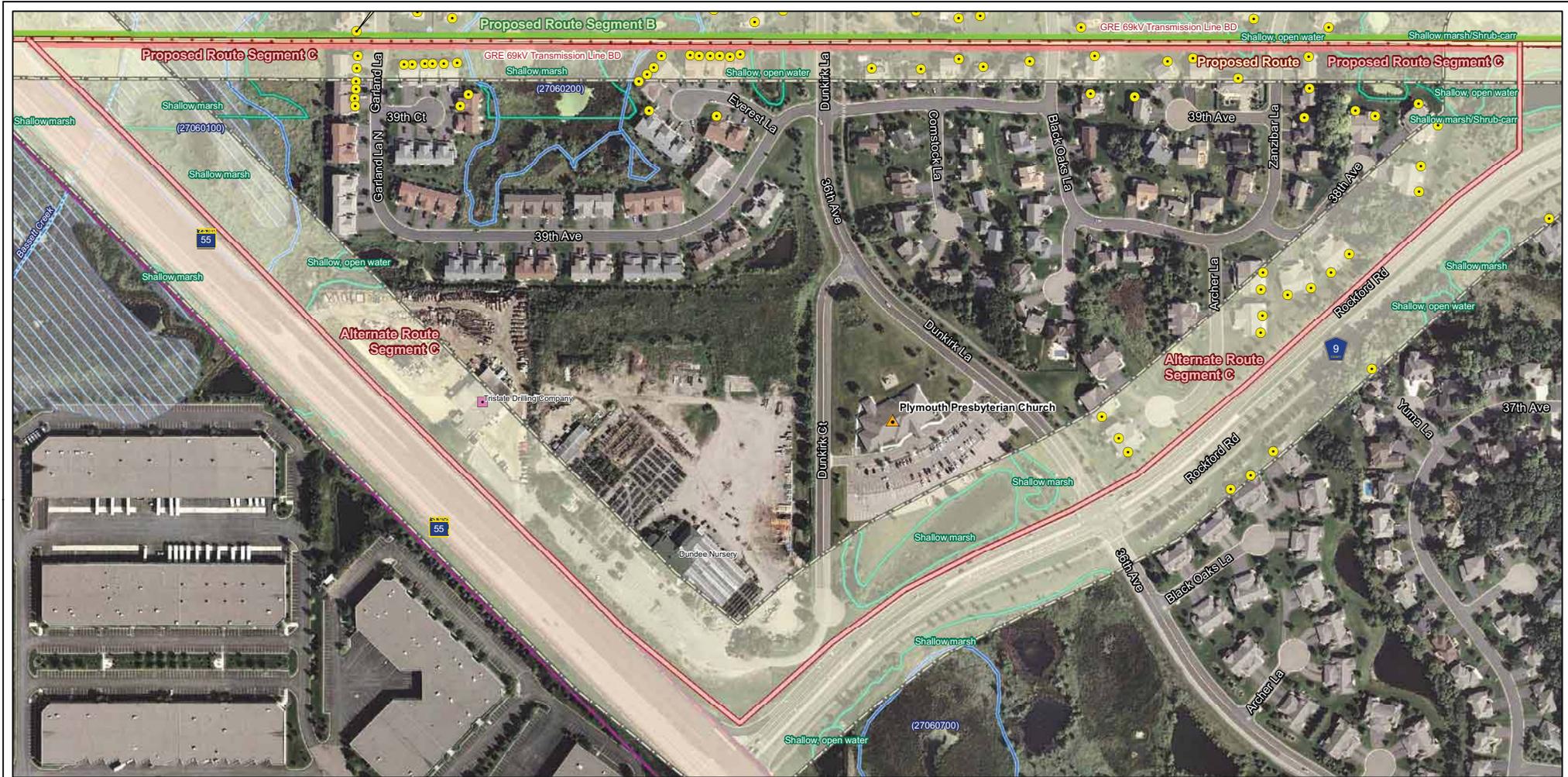
- |   |   |   |   |  |   |
|---|---|---|---|--|---|
| <ul style="list-style-type: none"> <li> Proposed Route</li> <li> Alternate Route Segment A</li> <li> Alternate Route Segment B</li> <li> Alternate Route Segment C</li> <li> Alternate Route Segment D</li> <li> Proposed Route Segment A</li> <li> Proposed Route Segment B</li> <li> Proposed Route Segment C</li> <li> Proposed Route Segment D</li> </ul> | <ul style="list-style-type: none"> <li> Existing Xcel Energy Substation</li> <li> Existing GRE Substation</li> <li> Existing GRE Transmission Line</li> <li> 69 kV</li> <li> 115 kV</li> <li> Existing Xcel Energy Transmission Line</li> <li> 69 kV</li> <li> 345 kV</li> <li> Railroad</li> </ul> | <ul style="list-style-type: none"> <li> Regional Existing Trail</li> <li> State Trail</li> <li> Snowmobile Trail</li> <li> Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)</li> <li> Approximate Mndot ROW</li> <li> Preferred Substation Site A</li> <li> Alternate Substation Site B</li> <li> Existing Substation Site</li> </ul> | <ul style="list-style-type: none"> <li> Church</li> <li> Child Care Center</li> <li> School</li> <li> Residence*</li> <li> Non-Residential Building*</li> <li> Tower</li> </ul> | <ul style="list-style-type: none"> <li> Public Water Inventory Watercourse</li> <li> Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)</li> <li> FEMA Q3 Data</li> <li> 100-year Floodplain</li> <li> 500-year Floodplain</li> </ul> | <ul style="list-style-type: none"> <li> Regionally Significant Ecological Area</li> <li> MCBS Native Plant Community</li> <li> MCBS Sites of Biodiversity Significance</li> <li> Moderate Significance</li> <li> MCBS Railroad Rights-of-Way Prairie</li> <li> NHIS Rare Natural Features</li> <li> Terrestrial Community</li> <li> Terrestrial Community - Element Occurance Area</li> </ul> |
|---|---|---|---|--|---|



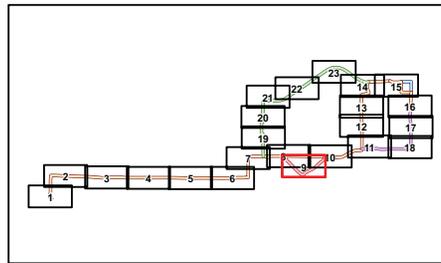
**Figure C-8**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





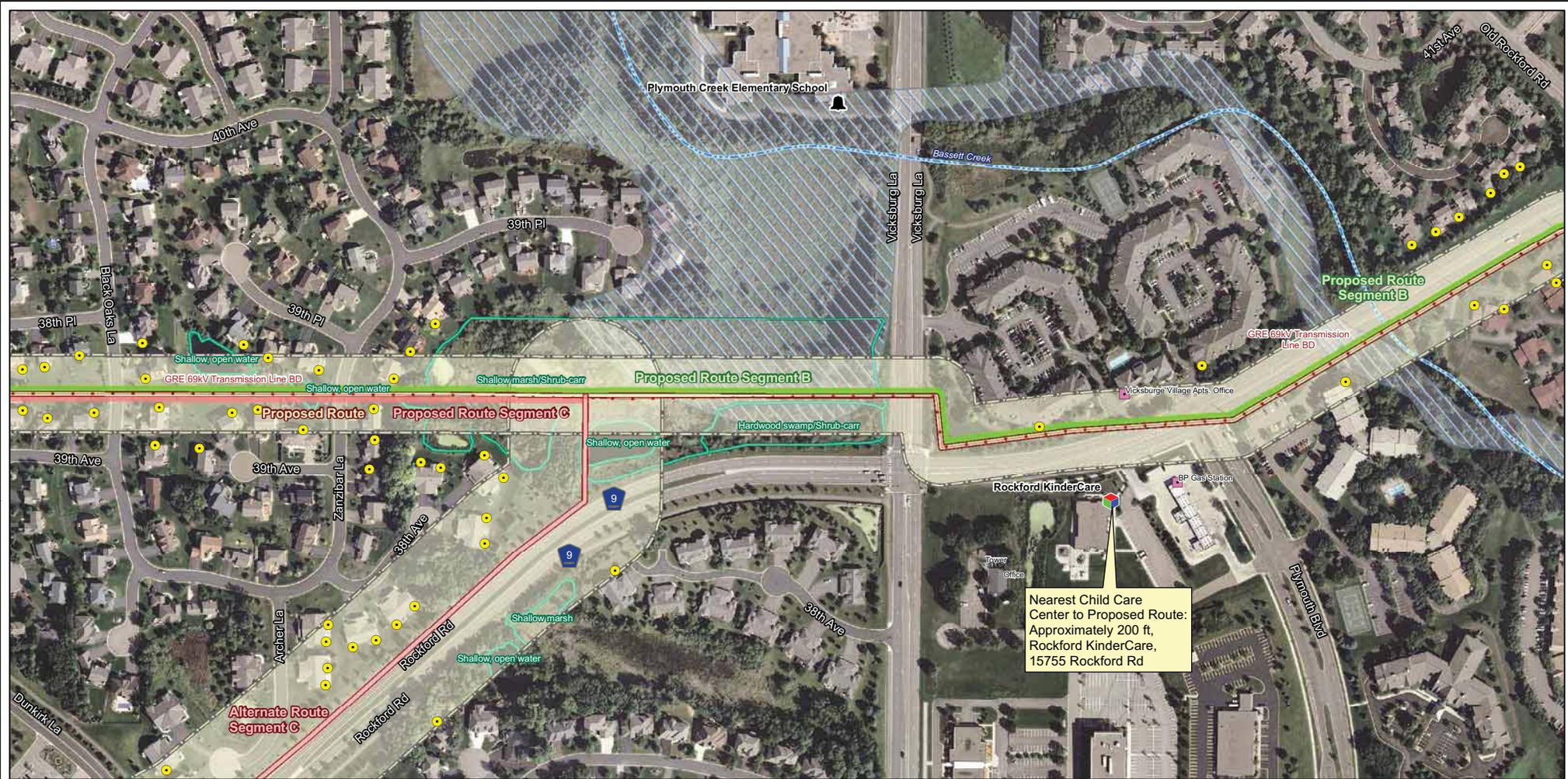
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|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | Existing Xcel Energy Transmission Line | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | 115 kV                                 | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



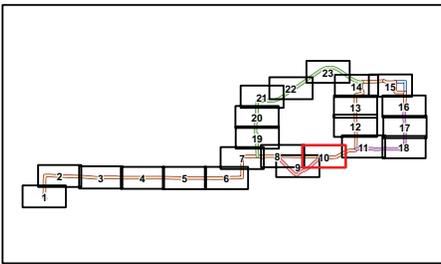
**Figure C-9**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





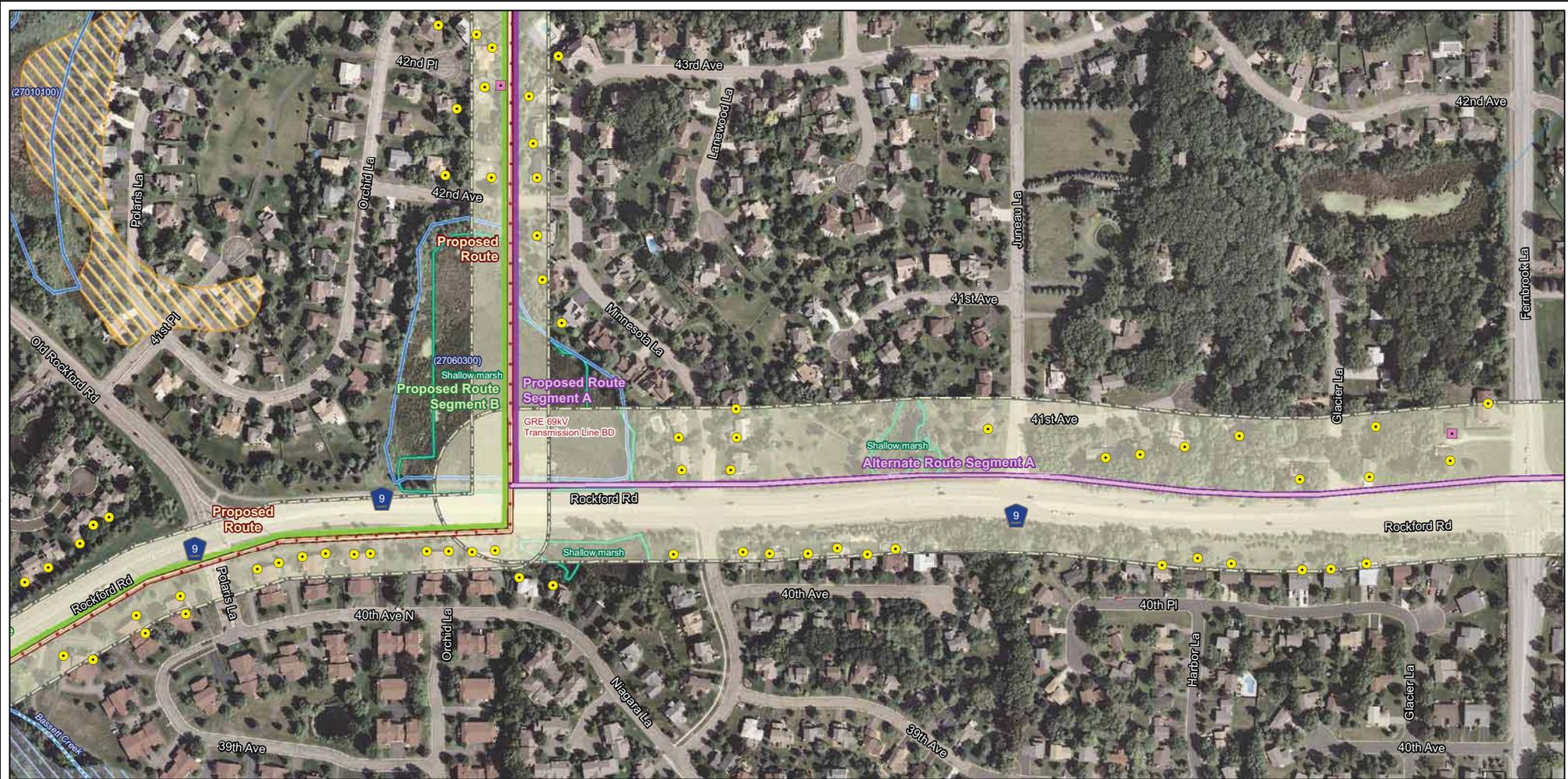
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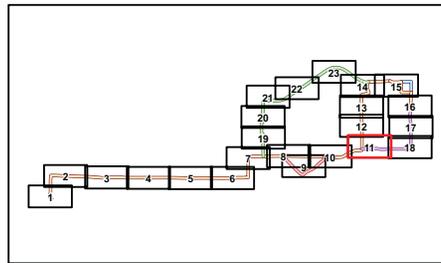
**Figure C-10**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





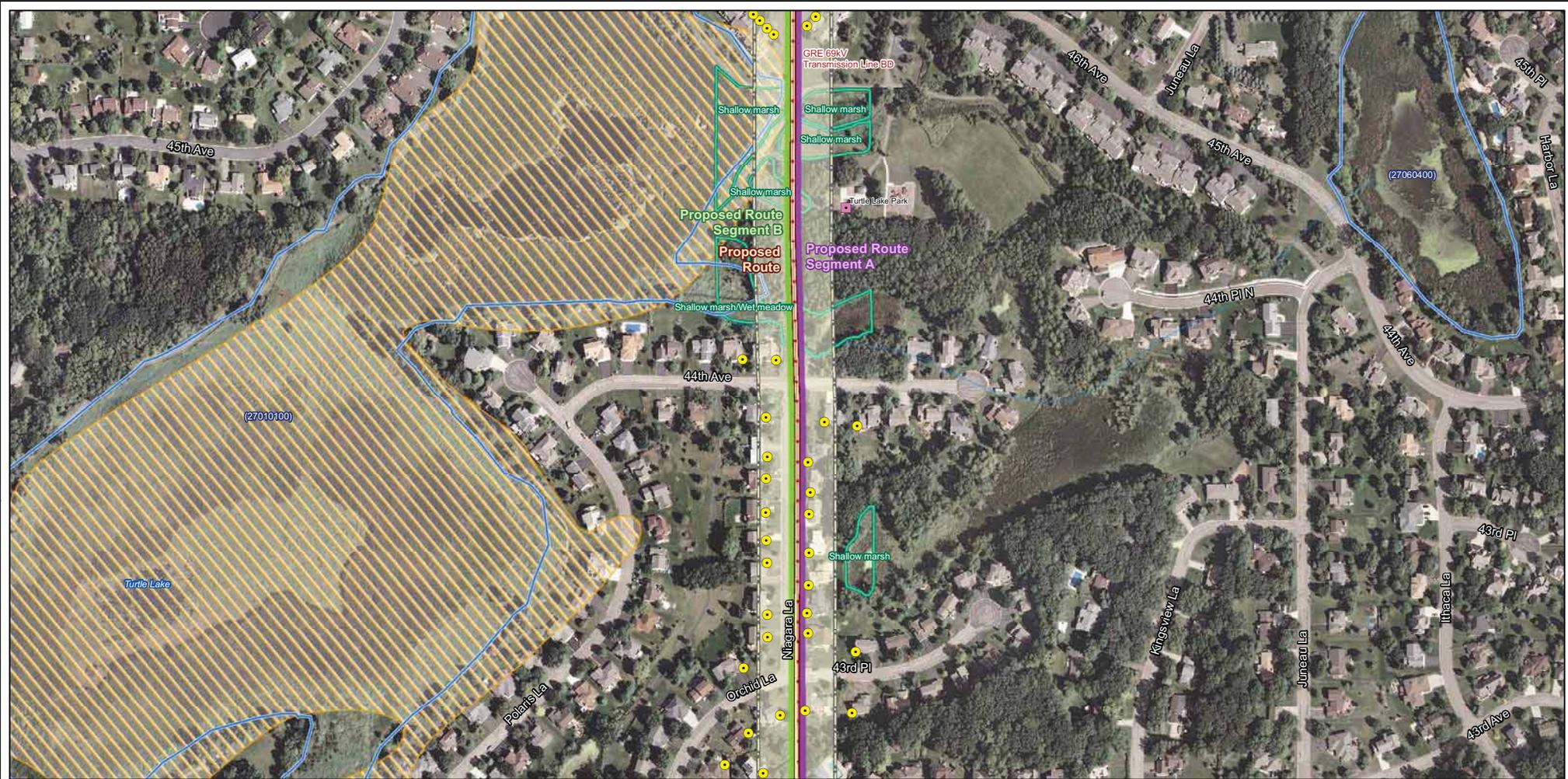
- |                           |  |   |                           |  |  |
|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | 115 kV                                 | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | Existing Xcel Energy Transmission Line | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



**Figure C-11**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

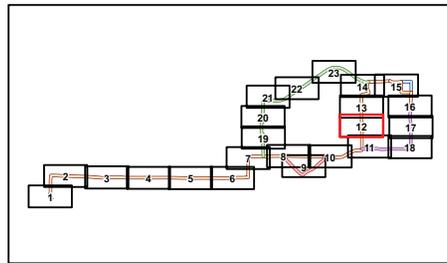
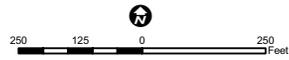
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



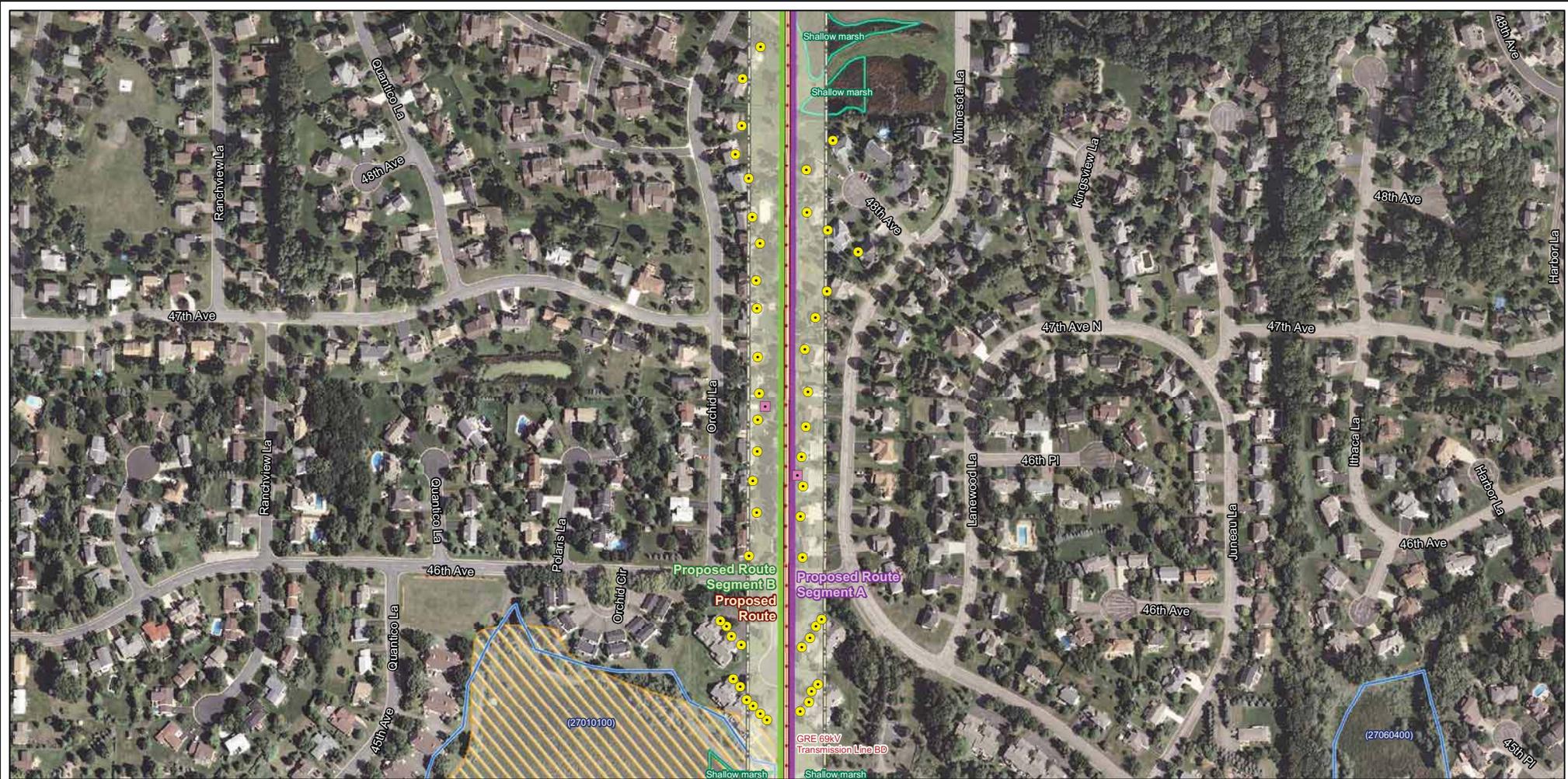


- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot ROW
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area

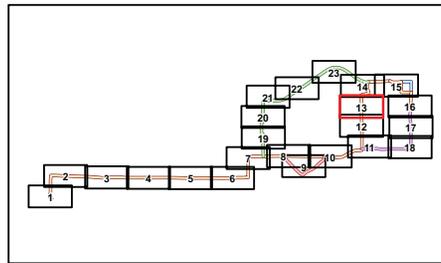
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Imagery for the Twin Cities.



**Figure C-12**  
**DETAILED ROUTE MAP**  
**Hollydale Project**



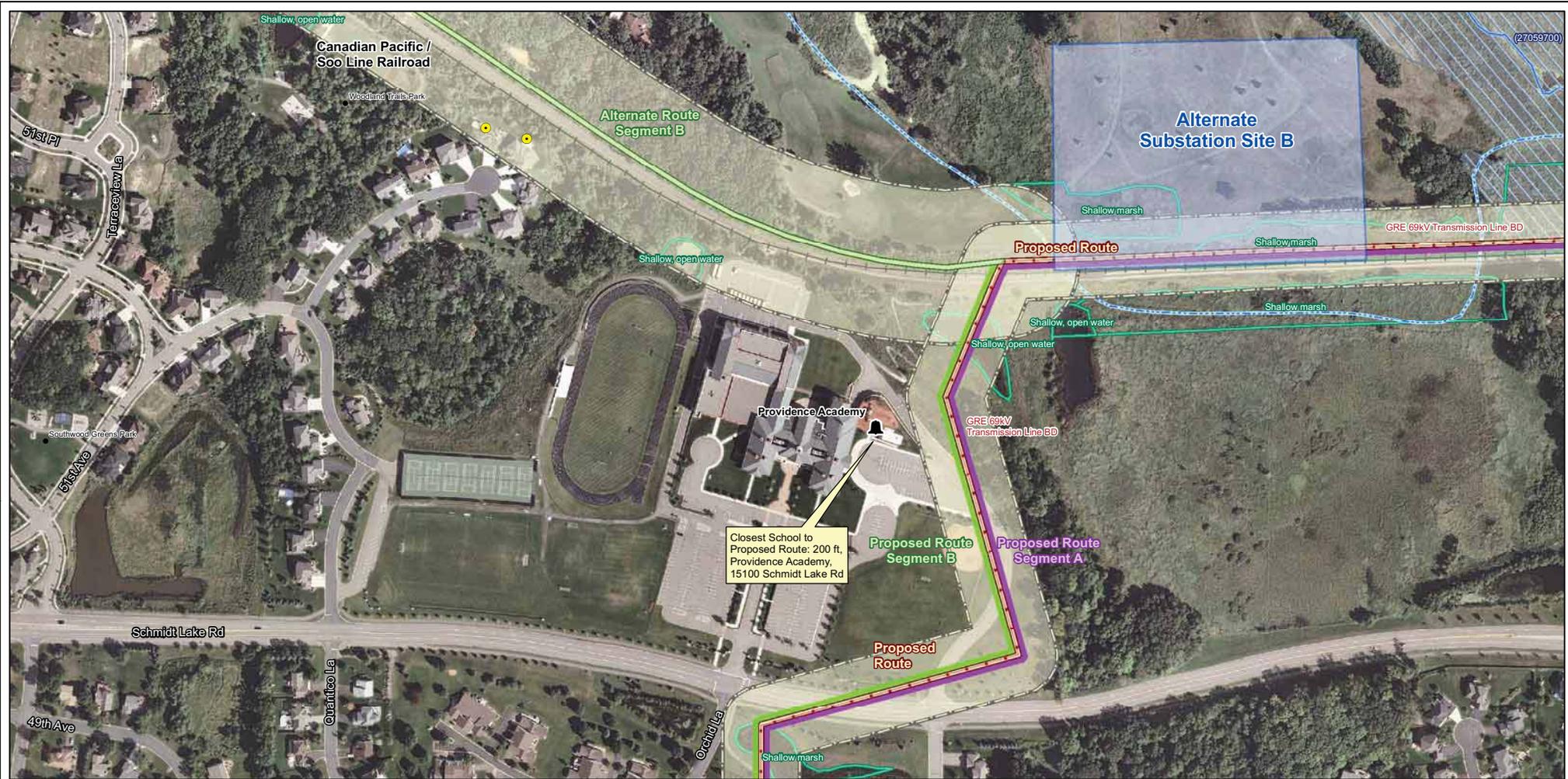
- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot Row
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin (Clipped to 200 Feet of Centerline)
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area



**Figure C-13**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

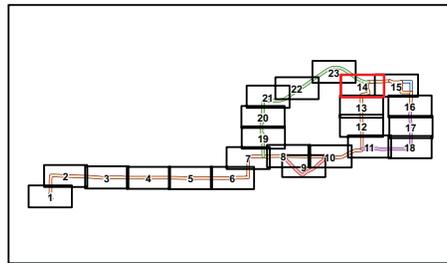
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



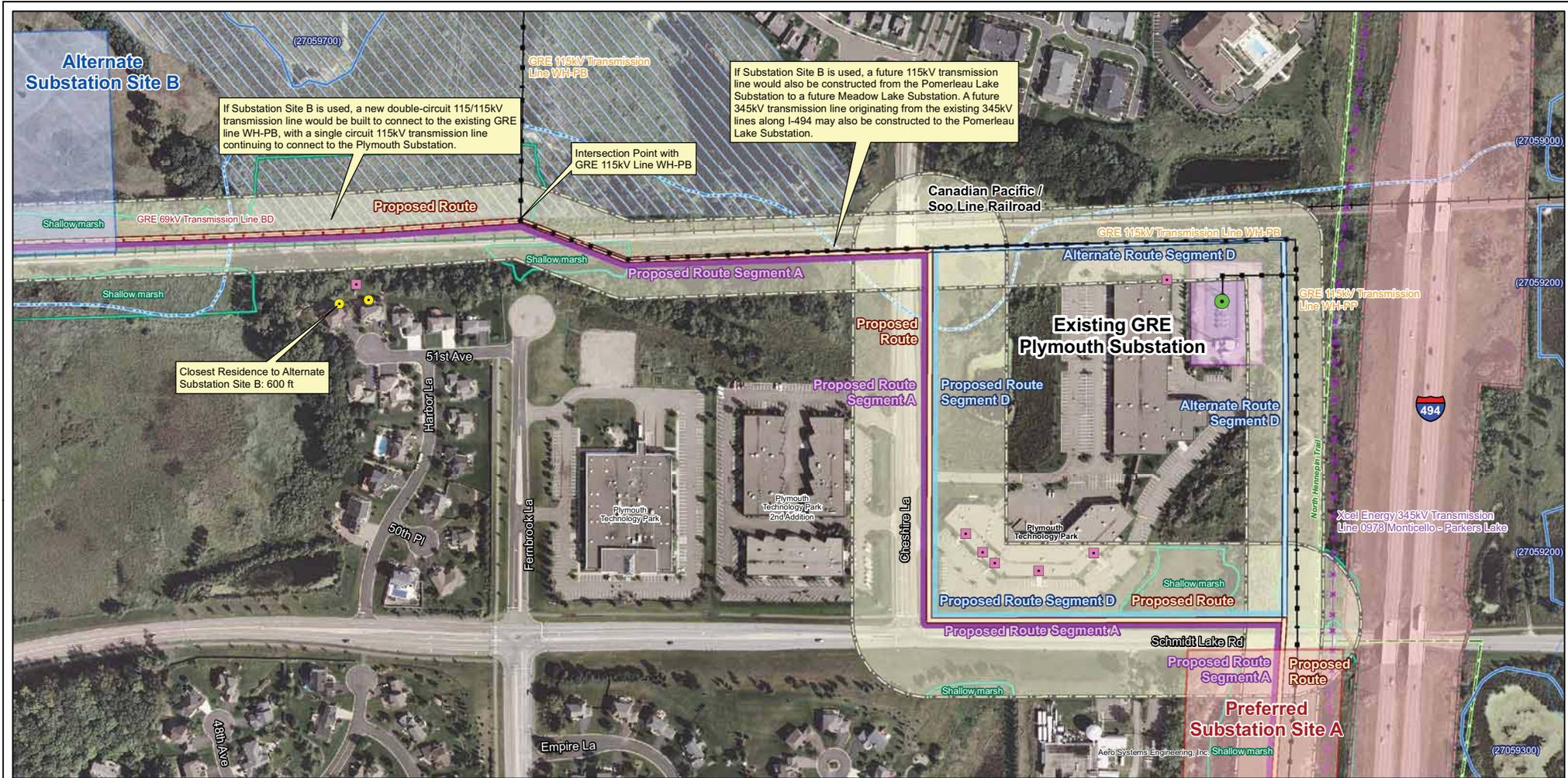


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|---|---|---|---|--|---|
| <ul style="list-style-type: none"> <li> Proposed Route</li> <li> Alternate Route Segment A</li> <li> Alternate Route Segment B</li> <li> Alternate Route Segment C</li> <li> Alternate Route Segment D</li> <li> Proposed Route Segment A</li> <li> Proposed Route Segment B</li> <li> Proposed Route Segment C</li> <li> Proposed Route Segment D</li> </ul> | <ul style="list-style-type: none"> <li> Existing Xcel Energy Substation</li> <li> Existing GRE Substation</li> <li> Existing GRE Transmission Line</li> <li> 69 kV</li> <li> 115 kV</li> <li> Existing Xcel Energy Transmission Line</li> <li> 69 kV</li> <li> 345 kV</li> <li> Railroad</li> </ul> | <ul style="list-style-type: none"> <li> Regional Existing Trail</li> <li> State Trail</li> <li> Snowmobile Trail</li> <li> Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)</li> <li> Approximate Mndot ROW</li> <li> Preferred Substation Site A</li> <li> Alternate Substation Site B</li> <li> Existing Substation Site</li> </ul> | <ul style="list-style-type: none"> <li> Church</li> <li> Child Care Center</li> <li> School</li> <li> Residence*</li> <li> Non-Residential Building*</li> <li> Tower</li> </ul> | <ul style="list-style-type: none"> <li> Public Water Inventory Watercourse</li> <li> Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)</li> <li> FEMA Q3 Data</li> <li> 100-year Floodplain</li> <li> 500-year Floodplain</li> </ul> | <ul style="list-style-type: none"> <li> Regionally Significant Ecological Area</li> <li> MCBS Native Plant Community</li> <li> MCBS Sites of Biodiversity Significance</li> <li> Moderate Significance</li> <li> MCBS Railroad Rights-of-Way Prairie</li> <li> NHIS Rare Natural Features</li> <li> Terrestrial Community</li> <li> Terrestrial Community - Element Occurance Area</li> </ul> |
|---|---|---|---|--|---|

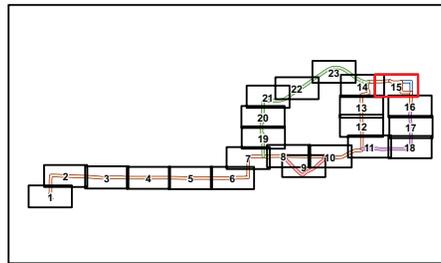
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



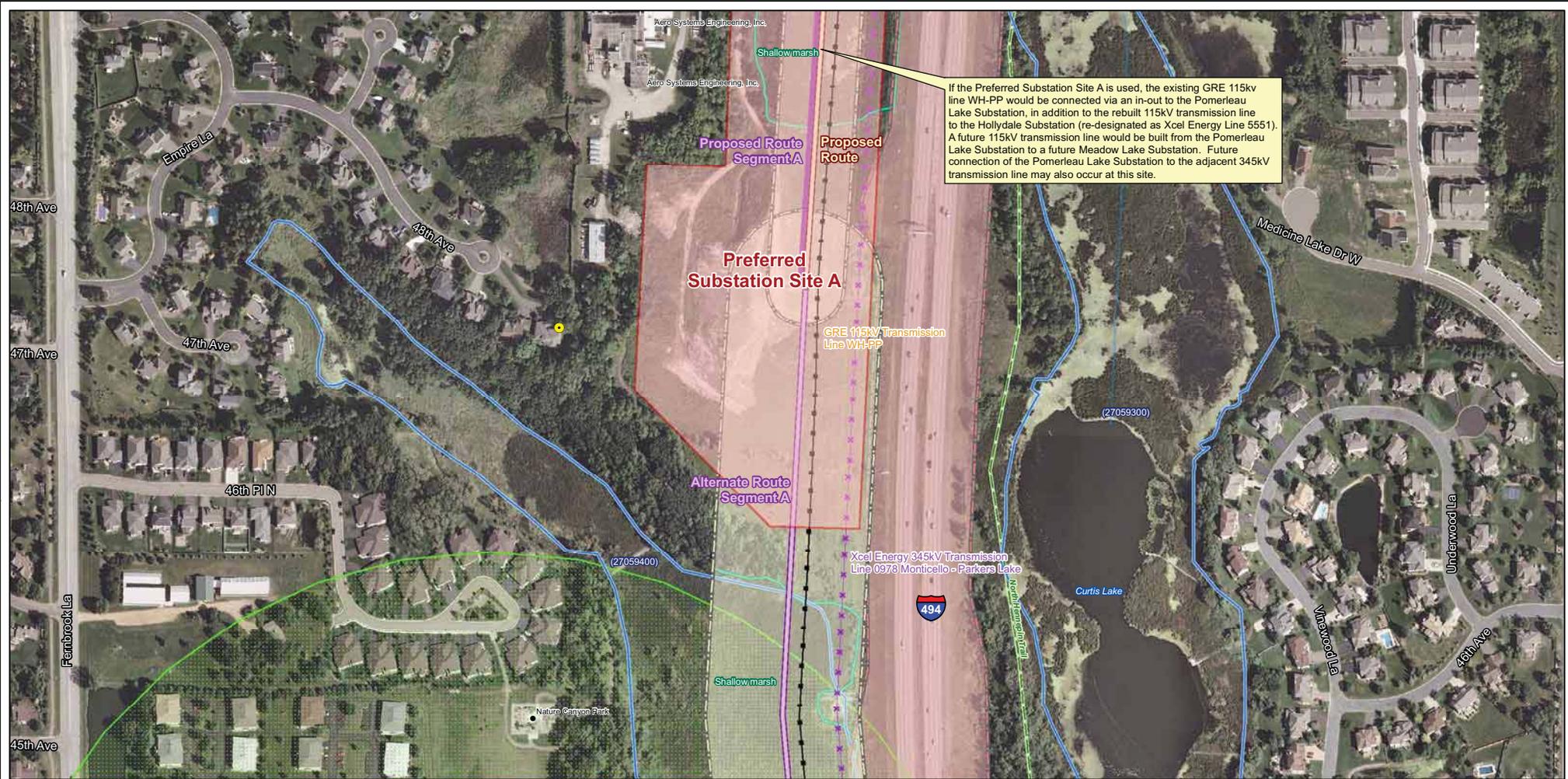
**Figure C-14**  
 DETAILED ROUTE MAP  
 Hollydale Project



Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.

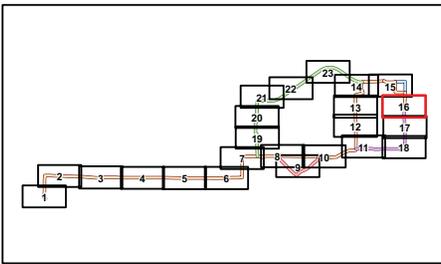


**Figure C-15**  
**DETAILED ROUTE MAP**  
**Hollydale Project**



If the Preferred Substation Site A is used, the existing GRE 115kV line WH-PP would be connected via an in-out to the Pomerleau Lake Substation, in addition to the rebuilt 115kV transmission line to the Hollydale Substation (re-designated as Xcel Energy Line 5551). A future 115kV transmission line would be built from the Pomerleau Lake Substation to a future Meadow Lake Substation. Future connection of the Pomerleau Lake Substation to the adjacent 345kV transmission line may also occur at this site.

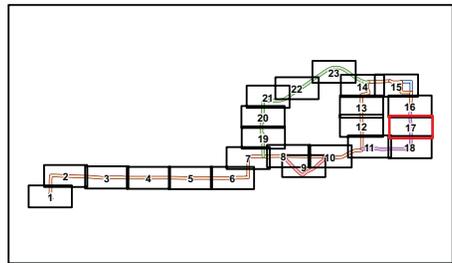
- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot ROW
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin (Clipped to 200 Feet of Centerline)
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area



**Figure C-16**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
\*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
Background: 2009 Aerial Express Imagery for the Twin Cities.

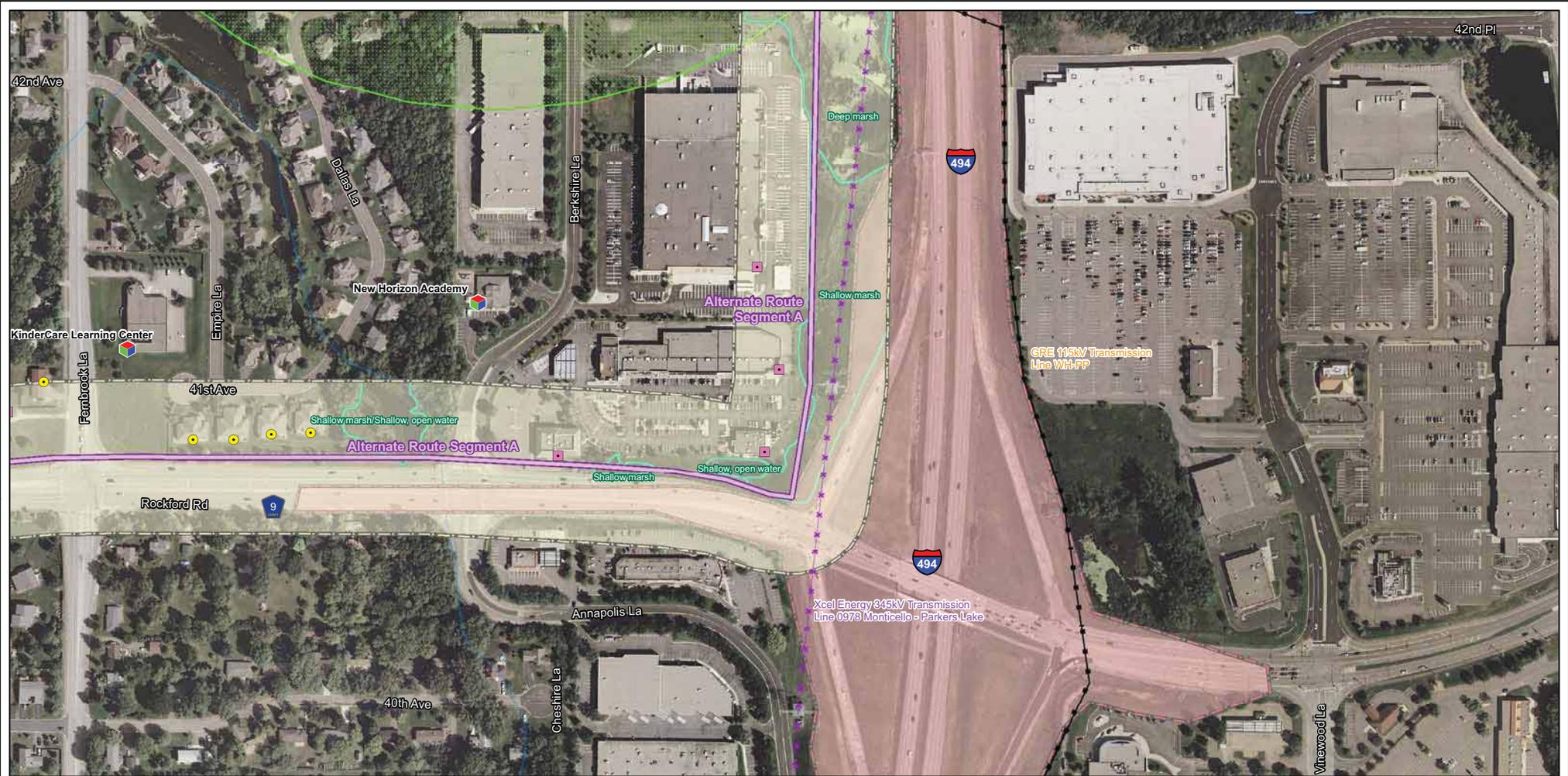




**Figure C-17**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

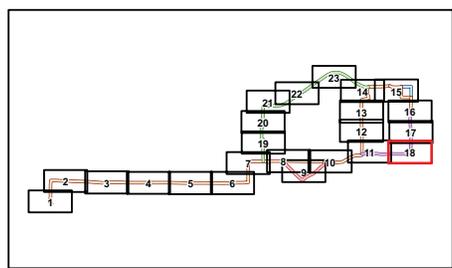
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot Row
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin (Clipped to 200 Feet of Centerline)
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area

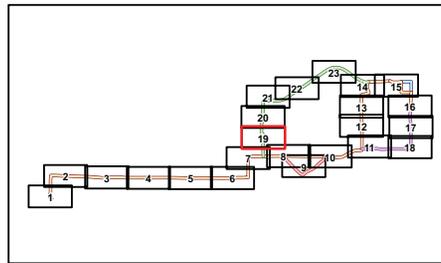
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



**Figure C-18**  
**DETAILED ROUTE MAP**  
**Hollydale Project**



- |                           |  |   |                           |  |  |
|---------------------------|--|---|---------------------------|--|--|
| Proposed Route            | Existing Xcel Energy Substation        | Regional Existing Trail   | Church                    | Public Water Inventory Watercourse                           | Regionally Significant Ecological Area         |
| Alternate Route Segment A | Existing GRE Substation                | State Trail   | Child Care Center         | Public Water Inventory Basin                                 | MCBS Native Plant Community                    |
| Alternate Route Segment B | Existing GRE Transmission Line         | Snowmobile Trail  | School                    | Wetlands (Barr, 2010)<br>(Clipped to 200 Feet of Centerline) | MCBS Sites of Biodiversity Significance        |
| Alternate Route Segment C | 69 kV                                  | Proposed Route Width<br>(200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line) | Residence*                | FEMA Q3 Data   | Moderate Significance                          |
| Alternate Route Segment D | Existing Xcel Energy Transmission Line | Approximate Mndot ROW   | Non-Residential Building* | 100-year Floodplain  | MCBS Railroad Rights-of-Way Prairie            |
| Proposed Route Segment A  | 115 kV                                 | Preferred Substation Site A   | Tower                     | 500-year Floodplain  | NHIS Rare Natural Features                     |
| Proposed Route Segment B  | 69 kV                                  | Alternate Substation Site B   |                           |  | Terrestrial Community                          |
| Proposed Route Segment C  | 345 kV                                 | Existing Substation Site  |                           |  | Terrestrial Community - Element Occurance Area |
| Proposed Route Segment D  | Railroad                               |   |                           |  |  |



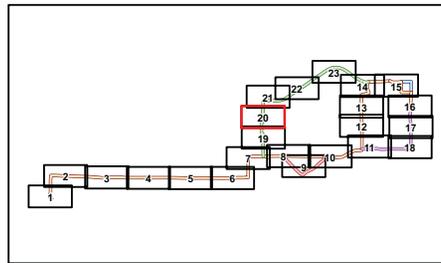
**Figure C-19**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
- 69 kV
- 115 kV
- Existing Xcel Energy Transmission Line
- 69 kV
- 345 kV
- Railroad
- Regional Existing Trail
- State Trail
- Snowmobile Trail
- Proposed Route Width (200 feet total for rebuild section of existing transmission line and 400 feet total for new transmission line)
- Approximate Mndot ROW
- Preferred Substation Site A
- Alternate Substation Site B
- Existing Substation Site
- Church
- Child Care Center
- School
- Residence\*
- Non-Residential Building\*
- Tower
- Public Water Inventory Watercourse
- Public Water Inventory Basin (Clipped to 200 Feet of Centerline)
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area



**Figure C-20**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

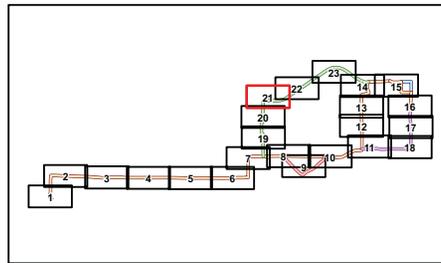
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
\*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
Background: 2009 Aerial Express Imagery for the Twin Cities.





- Proposed Route
- Alternate Route Segment A
- Alternate Route Segment B
- Alternate Route Segment C
- Alternate Route Segment D
- Proposed Route Segment A
- Proposed Route Segment B
- Proposed Route Segment C
- Proposed Route Segment D
- Existing Xcel Energy Substation
- Existing GRE Substation
- Existing GRE Transmission Line
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- Child Care Center
- School
- Residence\*
- Non-Residential Building
- Tower
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- Public Water Inventory Basin
- Wetlands (Barr, 2010) (Clipped to 200 Feet of Centerline)
- FEMA Q3 Data
- 100-year Floodplain
- 500-year Floodplain
- Regionally Significant Ecological Area
- MCBS Native Plant Community
- MCBS Sites of Biodiversity Significance
- Moderate Significance
- MCBS Railroad Rights-of-Way Prairie
- NHIS Rare Natural Features
- Terrestrial Community
- Terrestrial Community - Element Occurance Area

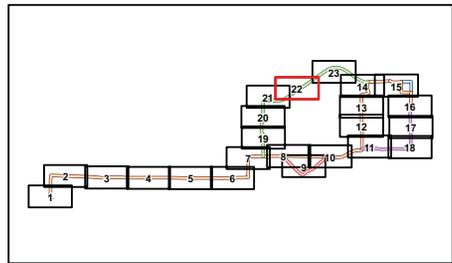
Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



**Figure C-21**  
 DETAILED ROUTE MAP  
 Hollydale Project



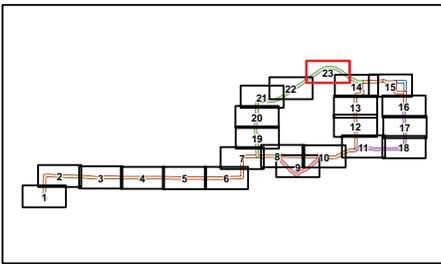
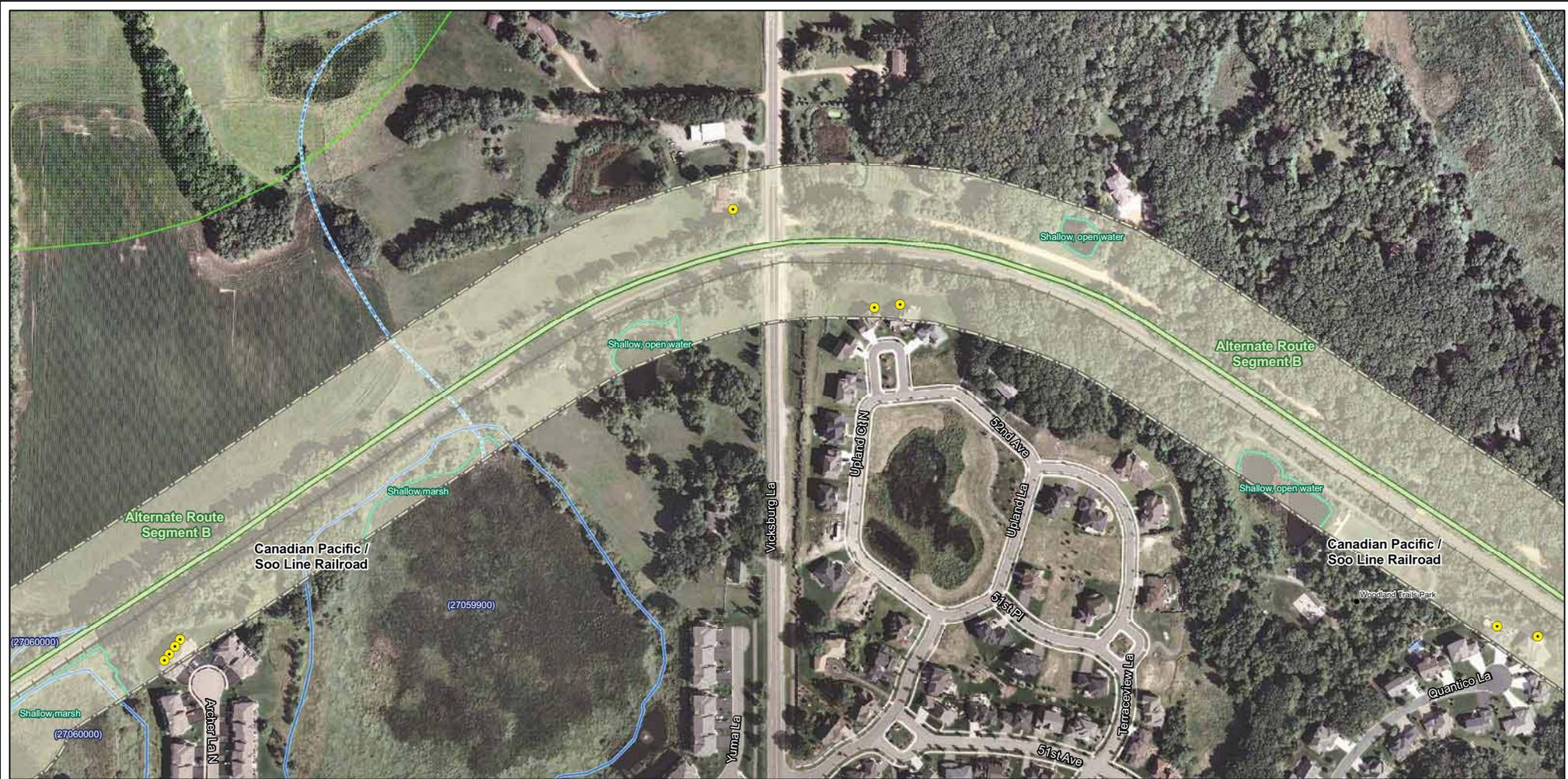
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**Figure C-22**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.





**Figure C-23**  
**DETAILED ROUTE MAP**  
**Hollydale Project**

Data Source: Barr, Xcel Energy, GRE, MN DNR, MNDOT, USGS.  
 \*Locations of residences and buildings within approximately 200-feet of the proposed rebuild area are shown. Points were placed on the side of the building closest to the existing transmission line.  
 Natural Heritage Information System (NHIS) Data Copyright (2009), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (2009). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.  
 Background: 2009 Aerial Express Imagery for the Twin Cities.



Howard Chan  
4060 Everest Lane North  
Plymouth, MN. 55446

Dear Scott,

First of all, I'd like to let you know that it is very comforting knowing that we the people do have a voice and we the people can change the direction of what was presented as the only option. Xcel has made us feel as if they were simply going through the motions with no intention of listening or changing what they felt was in their best interest. An interest that would make them the most money with the least amount of cost, time and effort to complete.

Also, that you stated that we can make a difference and could have the proposed plan changed, gave us all hope.

So, I wish to thank you for that.!!

With that being said, I'd like to submit the following for consideration and for the recored;

- 1) I agree with the proposed option mentioned at the 10-26-11 public meeting--the Hwy 55 & Hwy 494 as the only option for Xcel to consider, pursue and actually implement based on the following issues to be considered;
  - a) There are already power lines that could be used and increased in pole dimensions and voltage capabilities
  - b) Would have minimum impact on housing / developments
  - c) The decreased home values of 10%-40% based on the findings of licensed realstate agents presenting at public meeting
  - d) Would not cause concerns or increased medical issues with occupants—especially smaller children and adults. See all references of medical studies made by Elizabeth Lafrenz at public meeting.
  - e) The level of EMF output and the above studies findings regarding medical concerns and proved increased cases of a variety of different medical conditions associated with power lines.
  - f) Not pit one neighbor(hood) against another as it appears was being done by the options under consideration by xcel and taking what appears to be big money making efforts with very little human health and property devaluation under consideration
  - g) Noise level from the voltage of the power line upgrade. It is well known that it will be present. Especially for how close my home is with it in my back yard As well as for neighbors that are not aware of this issue/topic/concern due to not being informed.
  - h) Concerned with possible personal safety of my children/family and others known/unknown that may arise via down wires due to storms, fires, electrical hazards and other increased hazards that are unknown to me at this time with a fully functioning power lines of this nature
  - i) I would not have paid money/purchased current home had I known that this was an option when the line was a non functioning line.
  - j) I'd also, like to know where I can go to see the proposed poles/lines to get a better understanding of what it will look like vs a picture that simply shows it in an ideal setting alongside an open road and field vs backing up to homes and in a home development.

Let me know if there is anything that I/we may/should be doing with what we submit as well. Since we don't have a clue on what to do or how to do it, we are at the mercy of the process. This has required us to try to become an expert in a matter that we can not and must rely on assistance.

Thanks once again.

Howard Chan ( I own another home at 16920 39<sup>th</sup> Avenue North, Plymouth, MN 55446 – which will also be affected).

**From:** [Linda Borowiec](#)  
**To:** [Ek, Scott \(COMM\)](#)  
**Cc:** [Becky.Fruechte@ebf.com](#); [mnzooks@gmail.com](#); [Tom Blanck](#); [lstay@comcast.net](#); [Dale and TC Stover](#); [Tom and Michelle Sandberg](#); [Cort Cieminski](#); [jeanseik@yahoo.com](#); [LHGB1400@aol.com](#); [dp\\_md2001@yahoo.com](#); [aiyengar@uswest.net](#); [Lisa-Marie.Hanson@kornferry.com](#); [intouch.bobhanson@gmail.com](#); [java4157@msn.com](#); [sharebear249@q.com](#); [cortandkaren@hotmail.com](#); [jmg@visi.com](#); [Linda Borowiec](#); [accent@isd.net](#); [cathyfranke@msn.com](#); [yanzhuji99@gmail.com](#); [gramma5@visi.com](#); [jborken@haworthmedia.com](#); [kqaida@comcast.net](#); [skjilarsen@comcast.net](#); [francee@comcast.net](#); [m\\_sush@yahoo.com](#); [marcia1214@aol.com](#); [lifland@comcast.net](#); [jkravchenko@gmail.com](#); [kkelze@comcast.net](#); [tom.blanck@pkgenineer.com](#); [suea@pbmn.com](#); [daadalen@msn.com](#); [nancy.aadalen@gmail.com](#); [saroramd@gmail.com](#); [jessie\\_ge2003@yahoo.com](#); [bridget.coutinho@target.com](#); [paul\\_coutinho@msn.com](#); [jdavenport@kpmg.com](#); [ilkdavenport@gmail.com](#); [schaaffamily1@comcast.net](#)  
**Subject:** FW: comment letter opposing the proposed Hollydale 115 Kv Project  
**Date:** Wednesday, November 09, 2011 12:32:49 PM  
**Attachments:** [Hollydale 115Kv Project letter of opposition.docx](#)

---

Mr. Ek:

We received the attached copy of a letter sent to you by one of our neighbors, Cort and Karen Cieminski. I am writing to tell you my husband and I share in their opinions and concerns about the Xcel Energy/Great River Energy Hollydale 115Kv Project and also attended the meeting on 10-26-11 at the Kelly Inn.

We purchased our home at 3920 Zanzibar Lane N. after expressing concerns about the power line that runs between our house and that of the Coutinho family. We each have a 35 foot easement which means a total of only 70 feet for utilities. I look out our Master Bedroom window at this line daily and guess it is less than 50 feet away from our house. Therefore, we sleep in this room with our bodies 50 feet or less away from the voltage. While we were assured by our builder the voltage was not dangerous at the 69Kv level, I am not sure I would have purchased my house with a 115Kv and potential for up to 230Kv in the future. If I would not buy it, I suspect any potential buyer would have the same concerns.

We are concerned not only about the unsightliness but more importantly, about the health concerns a high voltage line might have on our family. And lastly, we are concerned it will negatively affect the value and potential for selling our house when we decide to down size.

We agree the best route is Highway 55 to I-494 and hope and pray you will make the correct decision.

**Linda and Stan Borowiec**  
3920 Zanzibar Lane N  
Plymouth MN. 55446

November 6, 2011

Mr. Scott Ek  
State Permit Manager  
Energy Planning Permitting  
Re: Hollydale 115 Kv Project – PUC Docket No. E002/TL-11-152

Mr. Ek,

Greetings to you and thank you for allowing so many Plymouth residents to voice their numerous concerns about the proposed Xcel Energy/Great River Energy Hollydale 115 Kv Project at the October 26, 2011 community meeting held at the Kelly Inn in Plymouth. My name is Cort Cieminski and my wife Karen and our three children live at 16515 39<sup>th</sup> Place North in Plymouth, MN. We would be adversely affected by the proposed route of the high voltage power line, as it would run less than 50 feet from our home.

It is my with my strongest voice that I recommend that the Public Utilities Commission reject the proposed and alternate routes of this high voltage power line that is to be constructed as part of the Hollydale Project. Instead of routing this line through several residential areas of Plymouth, including my neighborhood, I strongly suggest that this new power line be routed along the corridors of Minnesota State Highway 55 and Interstate 494 in Plymouth.

In my view, the current proposed route of the Hollydale Project and the alternate routes would both come with a steep negative impact upon residential areas of Plymouth and choosing one route over another simply pits one Plymouth neighborhood against another, with no residential neighborhood wanting to have this new high voltage power line running through it. It was quite apparent at the October community meeting that this was the overwhelming sentiment of those in attendance of that meeting. In their application for the Hollydale Project, Xcel Energy and Great River Energy claim that one of their objectives of this proposed project is to minimize the impacts of this high voltage power line on Plymouth residents. It is disingenuous, as best, for Xcel Energy to claim that they desire to minimize the impact upon the residents of Plymouth, while at the same time, putting forth a proposed route for the power line that exposes at least 360 homes in Plymouth within 200 feet or less along the proposed route to the potential safety concerns of electromagnetic fields, significant loss of home values, power line noise, risk to wetland areas, and general unsightliness that would accompany such a high voltage power line.

This proposed route of the Hollydale Project is quite simply the easiest and cheapest route for Xcel Energy/Great River Energy. It does not, however, take into account all of the detrimental effects of running a high voltage power line through a heavy residential area. To construct a project such as this would be counter to the vast majority of high voltage lines in the state of Minnesota that are routed instead through existing non-residential corridors. Such a corridor

already exists in Plymouth and it is the Highway 55 and I-494 corridor. It was extremely disappointing at the October community meeting to hear that Xcel Energy did not have any details to provide about the feasibility of such a route in this corridor. Not including this Highway 55 & I-494 corridor as an alternate route of the Hollydale Project demonstrates to me that Xcel Energy is not interested in the welfare of the residents of Plymouth over its corporate profit margin and fiscal bottom line.

I thank you in advance for including this letter in your comments on the proposed Hollydale 115 Kv Project. I strongly urge the Public Utilities Commission to reject the proposed route and to instead route this project in the Highway 55 and I-494 corridor.

Sincerely,

*Cort and Karen Cieminski*

Cort & Karen Cieminski  
16515 39<sup>th</sup> Place North  
Plymouth, MN 55454

**From:** [Cort Cieminski](#)  
**To:** [Ek, Scott \(COMM\)](#)  
**Subject:** comment letter opposing the proposed Hollydale 115 Kv Project  
**Date:** Monday, November 07, 2011 10:14:08 PM  
**Attachments:** [Hollydale 115Kv Project letter of opposition.docx](#)

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Mr Ek,

Greetings to you. My name is Cort Cieminski and I am a Plymouth, MN resident concerned about the proposed Hollydale 115 Kv Project. Please see my attached comment letter and thanks, in advance, for including this letter as part of the comments opposing this project. Please feel free to contact me with any questions or points of clarification.

Sincerely,  
Cort Cieminski  
16515 39th Place North  
Plymouth, MN 55446

--

**Cort J. Cieminski, PT, PhD, ATR**  
Associate Professor & Anatomy Lab Director  
Doctor of Physical Therapy Program  
St. Catherine University  
601 25th Avenue South  
Minneapolis, MN 55454  
(651) 690-7884 (Office)  
(800) 945-4599  
(651) 690-7876 (Fax)  
[www.stkate.edu/dpt](http://www.stkate.edu/dpt)

November 6, 2011

Mr. Scott Ek  
State Permit Manager  
Energy Planning Permitting  
Re: Hollydale 115 Kv Project – PUC Docket No. E002/TL-11-152

Mr. Ek,

Greetings to you and thank you for allowing so many Plymouth residents to voice their numerous concerns about the proposed Xcel Energy/Great River Energy Hollydale 115 Kv Project at the October 26, 2011 community meeting held at the Kelly Inn in Plymouth. My name is Cort Cieminski and my wife Karen and our three children live at 16515 39<sup>th</sup> Place North in Plymouth, MN. We would be adversely affected by the proposed route of the high voltage power line, as it would run less than 50 feet from our home.

It is my with my strongest voice that I recommend that the Public Utilities Commission reject the proposed and alternate routes of this high voltage power line that is to be constructed as part of the Hollydale Project. Instead of routing this line through several residential areas of Plymouth, including my neighborhood, I strongly suggest that this new power line be routed along the corridors of Minnesota State Highway 55 and Interstate 494 in Plymouth.

In my view, the current proposed route of the Hollydale Project and the alternate routes would both come with a steep negative impact upon residential areas of Plymouth and choosing one route over another simply pits one Plymouth neighborhood against another, with no residential neighborhood wanting to have this new high voltage power line running through it. It was quite apparent at the October community meeting that this was the overwhelming sentiment of those in attendance of that meeting. In their application for the Hollydale Project, Xcel Energy and Great River Energy claim that one of their objectives of this proposed project is to minimize the impacts of this high voltage power line on Plymouth residents. It is disingenuous, as best, for Xcel Energy to claim that they desire to minimize the impact upon the residents of Plymouth, while at the same time, putting forth a proposed route for the power line that exposes at least 360 homes in Plymouth within 200 feet or less along the proposed route to the potential safety concerns of electromagnetic fields, significant loss of home values, power line noise, risk to wetland areas, and general unsightliness that would accompany such a high voltage power line.

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already exists in Plymouth and it is the Highway 55 and I-494 corridor. It was extremely disappointing at the October community meeting to hear that Xcel Energy did not have any details to provide about the feasibility of such a route in this corridor. Not including this Highway 55 & I-494 corridor as an alternate route of the Hollydale Project demonstrates to me that Xcel Energy is not interested in the welfare of the residents of Plymouth over its corporate profit margin and fiscal bottom line.

I thank you in advance for including this letter in your comments on the proposed Hollydale 115 Kv Project. I strongly urge the Public Utilities Commission to reject the proposed route and to instead route this project in the Highway 55 and I-494 corridor.

Sincerely,

*Cort and Karen Cieminski*

Cort & Karen Cieminski  
16515 39<sup>th</sup> Place North  
Plymouth, MN 55454

**From:** [Janet B. C.](#)  
**To:** [Ek, Scott \(COMM\)](#)  
**Cc:** [Merrilee Riley](#); [Steve Sis](#)  
**Subject:** Docket No. E002/TL-11-152  
**Date:** Wednesday, November 09, 2011 1:46:37 PM  
**Attachments:** [excerpt from Plymouth Zoning Ordinance.pdf](#)

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Greetings, Scott -

Another issue that would complicate upgrading the Hollydale Project on the site of the existing 69kV line is that a home at 16955 39th Pl. N. has built a fence (presumably after the home had a survey in 1999) parallel to and nearly under the power line center line, near the perimeter of the home's lot. It appears to have been built without a fence permit from the City of Plymouth - see email below. While the Plymouth Zoning ordinance allows non-conforming fences to remain, if it is damaged during the construction, it would not be allowed to rebuilt in its current location. Our association wishes to be good neighbors with the adjoining single family homes. While we prefer not to have our landscaping removed and replaced with younger trees, it would be even more harmful for our neighbor.

The Plymouth Zoning ordinance also has planting requirements that will be complicated for our association by the presence of a line, under which only certain heights of trees may be planted. See attached, 21130-6 through 21130-10 Subd. 2 (approx. pg 172-176).

This is more evidence that the current right-of-way is compromised by the presence of homes and should not be used for an upgrade.

Janet Clarke  
Holly Creek Town Home Association

----- Forwarded Message -----

**From:** Janice Bergstrom <[JBergstr@plymouthmn.gov](mailto:JBergstr@plymouthmn.gov)>  
**To:** Janet B. C. <[iammejl@yahoo.com](mailto:iammejl@yahoo.com)>  
**Sent:** Wednesday, November 9, 2011 12:18 PM  
**Subject:** RE: Fence permit for 16955 39th Pl. N

Janet,

In reviewing the fence permits issued for properties in the City of Plymouth back to 1999, I could not locate a fence permit for 16955 39<sup>th</sup> Pl. N.

**Janice Bergstrom | Community Development**

Phone: 763.509.5403 - Fax: 763.509.5407

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**From:** Janet B. C. [<mailto:iammejl@yahoo.com>]  
**Sent:** Wednesday, November 09, 2011 10:43 AM  
**To:** Janice Bergstrom  
**Subject:** Fence permit for 16955 39th Pl. N

Hi, Janice -

Thanks for searching for a fence permit for 16955 39th Pl. N. As I mentioned, I am doing research that involves the easement for the 115kV proposed upgrade by Xcel. I live in the adjoining town home association and want to avoid conflict with our neighbors in the single

family homes. Please verify for me whether you were able to find a permit for the fence at 16955 39th Pl. N.

Thank you for your time and assistance.

Janet Clarke

# *City of Plymouth, Minnesota*



# ZONING ORDINANCE

THIS ZONING ORDINANCE IS SUBJECT TO PERIODIC AMENDMENTS TO REFLECT ZONING DISTRICT CHANGES (MAP) AND LANGUAGE CHANGES. USERS ARE RESPONSIBLE FOR ASSURING THAT THEIR COPY OF THE ORDINANCE IS CURRENT. THE CITY MAINTAINS A CURRENT LISTING OF ALL ORDINANCE AMENDMENTS.

THE CITY COUNCIL PERIODICALLY SUPPLEMENTS THE CITY CODE, INCLUDING THIS ORDINANCE, WITH POLICY RESOLUTIONS WHICH ARE DEEMED PART OF THE ORDINANCE. COPIES OF SUCH POLICIES ARE AVAILABLE AT CITY HALL.

**COMMUNITY DEVELOPMENT DEPARTMENT  
3400 PLYMOUTH BOULEVARD  
PLYMOUTH, MN 55447  
(763) 509-5450**

**CURRENT AS OF:  
August 23, 2011  
ORDINANCE 2011-28**

## PLYMOUTH ZONING ORDINANCE

screening fence shall be subject to the approval of the City as part of the site plan review pursuant to Section 21045 of this Chapter. Fences in excess of height limitations established in Section 21130.01 shall be subject to approval pursuant to required procedures. The City Council may also require plantings of shrubs or trees in association with required fencing.

(b) Non-Residential Uses.

(1) Where any non-residential use (i.e., structure, parking or storage) abuts property zoned for residential use, the non-residential use shall provide screening along its boundary with the residential property. Screening shall also be provided where a non-residential use is across the street from a residential zone, but not on that side of a non-residential use considered to be the front (as determined by the Zoning Administrator). All the fencing and screening specifically required by this Chapter shall be subject to Section 21105.05 and shall consist of either a fence or a green belt strip as provided for in Section 21130.03, Subd. 1.a.2.a and Subd. 1.a.2.b.

**Subd. 2.** Landscaping - Public, Semi-Public, Institutional, Single Family, Two Family, Multiple Family, Manufactured Home Park, Commercial, and Industrial Uses. Prior to approval of a building permit, all above referenced uses shall be subject to mandatory landscape plan and specification requirements. Except for single- and two-family development, said landscape plan shall be developed with an emphasis upon the boundary or perimeter of the proposed site at points adjoining other property and the immediate perimeter of the structure. All landscaping incorporated in said plan shall conform to the following standards and criteria:

(a) Landscape Design Elements. Elements of landscape design may include:

- (1) Existing topographical and vegetative features.
- (2) Berming.
- (3) Plantings, including the required minimum number of overstory trees, understory trees, shrubs, flowers, and ground cover materials.

(b) Types and Species of New Trees.

- (1) All tree species shall be indigenous to the appropriate hardiness zone and physical characteristics of the site, as specified by the City Forester.
- (2) To the extent possible, native drought-resistant trees shall be planted.
- (3) All types and species of overstory and understory deciduous and coniferous trees and their cultivars shall be consistent with the City of Plymouth's Landscape Tree List, as provided by the City Forester.

## PLYMOUTH ZONING ORDINANCE

(4) The complement of trees fulfilling the requirements of this Section shall be not less than twenty-five (25) percent deciduous and not less than twenty-five (25) percent coniferous.

(c) Number of Trees. The minimum number of new overstory trees on any given site shall be as follows:

(1) Residential Uses. Single-family and two-family dwellings shall require not less than two (2) trees (may be new trees or preserved pre-existing trees) within the front yard. Townhouse dwellings, manor home dwellings, and manufactured home parks shall require a minimum of two (2) new trees per dwelling unit. Apartment developments shall require trees as follows:

a. Developments with fifty (50) or fewer dwelling units shall require a minimum of two (2) new trees per dwelling unit;

b. Developments with more than fifty (50) dwelling units shall require a minimum of one and one-half (1.5) new trees per dwelling unit; and

c. Developments within the RMF-5 district shall require 0.75 new trees per dwelling unit.

d. If the planting provision results in overcrowding, as determined by the city, the developer may plant fewer trees on the site, provided a cash fee in accordance with Section 530 of the City Code is deposited in the Community Planting Fund to make up the difference between the trees required by this provision and the trees actually planted on the site.

(2) Non-Residential Uses -- New Development. New non-residential developments or uses shall require at a minimum the greater of:

a. One (1) new tree per fifty (50) lineal feet of site perimeter; or

b. One (1) new tree per one thousand (1,000) square feet of gross building floor area. If the floor area ratio (FAR) for the site would be 0.5 or greater, the developer may plant fewer trees on the site than required by this provision to prevent overcrowding, provided a cash fee in accordance with Section 530 of the City Code is deposited in the Community Planting Fund to make up the difference between the trees required by this provision and the trees actually planted on the site.

(3) Non-Residential Uses -- Expansion to Existing Development. Expansion of existing non-residential developments or uses shall require at a minimum one (1) new tree per one thousand (1,000) square feet of expanded gross floor area.

(4) Overstory Trees. An equivalent of up to fifty (50) percent of the required number of overstory trees may be substituted with the use of overstory trees in combination with other landscape design elements as listed in Section 21130.03,

## PLYMOUTH ZONING ORDINANCE

Subd. 2.(a) above. In such case, not less than three (3) understory trees shall be provided for each one (1) required overstory tree substituted.

*(Amended by Ord. No 2002-32, 11/26/02) (Amended by Ord. No. 2011-08, 04/12/11)*

### (d) Planting Size.

(1) Required trees shall be of the following minimum planting size:

a. Deciduous Trees. Two and one-half (2.5) inches in diameter as measured from six (6) inches above the ground.

b. Coniferous Trees. Six (6) feet in height.

(2) A minimum of fifteen (15) percent of the required minimum number of trees for multi-residential developments shall be long-lived deciduous trees, three and one-half (3.5) inches in diameter as measured six (6) inches off the ground.

(3) Evergreen shrubs used for screening purposes including those used in conjunction with berming shall be a minimum of thirty-six (36) inches in height.

### (e) Spacing.

(1) Plant material centers shall not be located closer than three (3) feet from the fence line or property line and shall not be planted to conflict with public plantings or public right-of-way based on the judgment of the Zoning Administrator.

(2) Where plant materials are planted in two (2) or more rows, plantings shall be staggered in rows unless otherwise approved by the Zoning Administrator.

(3) The spacing of trees shall be appropriate to the type of tree species provided. Where massing of plants or screening is intended, large deciduous shrubs shall not be planted more than four (4) feet on center, and/or evergreen shrubs shall not be planted more than three (3) feet on center, unless otherwise approved by the City Forester. *(Amended by Ord. No. 99-5, 01/19/99)*

(f) Sodding and Ground Cover. For single- and two-family developments, all yard areas not otherwise improved shall be sodded. For other developments, all areas not otherwise improved in accordance with an approved site plan shall be sodded. Exceptions to this requirement are as follows:

(1) Seeding may be provided in lieu of sod in any of the following cases:

a. Where the seed is applied to future building expansion areas, as shown on an approved site plan.

## PLYMOUTH ZONING ORDINANCE

b. Where the seed is applied adjacent to natural areas or wetlands, or where seed is applied within or to create natural preserves as regulated by Section 811 of the City Code.

c. Where the seed is applied to low maintenance areas along side principal arterial roadways, as defined by the Comprehensive Plan.

d. Where the Zoning Administrator determines that certain site characteristics (e.g., steep slopes or retained areas) would make it difficult to establish or maintain sod for specific portions of a site.

*(Amended by Ord. No. 2008-09, 03/25/08)*

(2) Undisturbed areas containing existing viable natural vegetation which can be maintained free of foreign and noxious plant materials.

(3) Areas designated as open space or future expansion areas properly planted and maintained with prairie grass.

(4) Use of mulch materials such as bark and wood chips in support of shrubs and foundation plantings.

(5) For single-family residential properties, portions of rear yards which lie beyond twenty-five (25) feet of the lot's principal building may be seeded, except in cases where the rear yard abuts a public street. Where a rear yard abuts a public street, that portion of the rear yard within twenty five (25) feet of the lot line shall be sodded. Proper erosion control measures shall be implemented and maintained until vegetation is established. *(Amended by Ord. No. 2008-09, 03/25/08)*

(g) Slopes and Berms.

(1) Final slope grades steeper than the ratio of three to one (3:1) shall not be permitted without special approval treatment such as ground cover, terracing or retaining walls.

(2) Berming used to provide required effective screening of parking lots and other open areas shall have a maximum slope ratio of three to one (3:1).

(h) Planting Method. All trees shall be planted in a method, and pursuant to specifications, as prescribed by the City Forester.

(i) Landscape Guarantee. All required plantings (includes trees and sod) shall be guaranteed for one (1) full year from the time planting has been completed. All plants shall be alive and in satisfactory growth at the end of the guarantee period or be replaced.

*(Amended by Ord. No. 2002-02, 01/22/02) (Amended by Ord. No. 2009-07, 05/12/09)*

PLYMOUTH ZONING ORDINANCE

**21130.04. TREE PRESERVATION:** A tree preservation plan shall be submitted in conjunction with any proposal that includes a subdivision application, in accordance with Chapter 5 of the City Code. *(Amended by Ord. No. 2002-02, 01/22/02) (Amended by Ord. No. 2004-02, 01/13/04)*

**21130.05. SCREENING OF MECHANICAL EQUIPMENT:** All rooftop and ground mounted mechanical equipment of non-residential buildings shall comply with the following standards:

**Subd. 1.** All rooftop and ground mounted mechanical equipment shall be buffered so as to mitigate noise in compliance with Section 21105.10 of this Chapter.

**Subd. 2.** All rooftop and ground mounted mechanical equipment shall be designed (including exterior color) and located so to be aesthetically harmonious and compatible with the building. Screening of the equipment may be required where the design, color, and location of the equipment are found to not effectively buffer noise or provide aesthetic harmony and compatibility as observed by a six-foot tall individual standing at ground level on the adjacent property or public right-of-way. Screening shall be constructed of durable materials which are aesthetically compatible with the structure and which may be an integral part of the structure. Applicable requirements for access to the equipment shall be observed in the design and construction of the screening. *(Amended by Ord. No. 99-5, 01/19/99)*

**Subd. 3.** Rooftop mechanical equipment less than three (3) feet in height and solar panels shall be exempt from the screening requirements of Section 21130.05, Subd. 2. of this Chapter. *(Amended by Ord. No. 2009-07, 05/12/09)*

PLYMOUTH ZONING ORDINANCE