Item 7G.
BCWMC
1-17-19

Minnesota Wetland Conservation Act
Notice of Application

Local Government Unit (LGU)	Address
City of Plymouth	**3400 Plymouth Blvd.** **Plymouth, MN 55447**

1. PROJECT INFORMATION

Applicant Name	Project Name	Date of Application	Application Number
Wayzata Public School	**Wayzata East Middle School**	**12/03/2018**	**N/A**

Type of Application (check all that apply):

☒ Wetland Boundary or Type Sequencing ☐ No-Loss ☐ Exemption ☐

☐ Replacement Plan ☐ Banking Plan

Summary and description of proposed project (attach additional sheets as necessary):

Pinnacle Engineering investigated and delineated the Wayzata East Middle School site on October 9, 2018. During the delineation, 1 wetland area was delineated. A TEP field review of the delineated boundaries occurred on November 28th, 2018 with the boundaries generally accepted as delineated.

The comment period closes on January 16th, 2019

2. APPLICATION REVIEW AND DECISION

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 3 provides notice that an application was made to the LGU under the Wetland Conservation Act as specified above. A copy of the application is attached. Comments can be submitted to:

Name and Title of LGU Contact Person	Comments must be received by (minimum 15 business-day comment period):
Michael Thompson **City of Plymouth**	**January 16, 2019**
Address (if different than LGU) **3400 Plymouth Blvd,** **Plymouth, MN 55447**	Date, time, and location of decision: **January 17, 2019**
Phone Number and E-mail Address **763-509-5501** **mthompson@plymouth.gov**	Decision-maker for this application: ☒ Staff ☐ Governing Board or Council

Signature: _____ **Date:** 12/18/2018

3. LIST OF ADDRESSEES

☒ SWCD TEP member: *Ms. Stacey Lijewski, HCD, 701 Fourth Avenue South, Suite 700, Minneapolis, MN 55415-1600 (sent electronically)*
☒ BWSR TEP member: *Ben Carlson, BWSR 520 Lafayette Road North, St. Paul, MN 55401 (sent electronically)*
☒ LGU TEP member (if different than LGU Contact): *Ben Scharenbroich, City of Plymouth, 3400 Plymouth Blvd, Plymouth, MN 55447 (sent electronically)*
☒ DNR TEP member: *Becky Horton, MnDNR, 1200 Warner Road, St. Paul, MN 55106 (sent electronically)*
☐ DNR Regional Office (if different than DNR TEP member)
☒ WD or WMO (if applicable): *BCWMC, c/o Laura Jester, Keystone Waters, LLC, 16145 Hillcrest Lane, Eden Prairie, MN 55346 (sent electronically)*
☒ Applicant (notice only) and Landowner (if different)
☒ Members of the public who requested notice (notice only): *Scott Thelen, Pinnacle Engineering, Inc., 11541 95th Ave North, Minneapolis, MN 55369 (sent electronically)*
☒ Corps of Engineers Project Manager (notice only) *USACE, 180 5th Street East, Suite 700, St. Paul, MN 55101 (sent electronically)*
☐ BWSR Wetland Bank Coordinator (wetland bank plan applications only)

4. MAILING INFORMATION

➢For a list of BWSR TEP representatives: www.bwsr.state.mn.us/contact/WCA_areas.pdf

➢For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf

➢Department of Natural Resources Regional Offices:

NW Region:	NE Region:	Central Region:	Southern Region:
Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073

For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

➢For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687
or send to:

➢

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

➢For Wetland Bank Plan applications, also send a copy of the application to:
Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

5. ATTACHMENTS

In addition to the application, list any other attachments:
☒ **Wayzata East Middle School Wetland Delineation Report**

Pinnacle Engineering
Owning Challenges. Winning Trust.

11541 95th Avenue North
Minneapolis, MN 55369
Tel: 763-315-4501
Fax: 763-315-4507

October 19, 2018

Mr. Arlee Carlson
Sunde Land Surveying
9001 East Bloomington Freeway, Suite 118
Bloomington, MN, 55420

RE: Wetland Delineation Services
School Dist. No 284
12000 Ridgemount Avenue West
Plymouth, Minnesota 55441
Pinnacle Project Number: EM21080973

Dear Mr. Carlson:

Pinnacle Engineering Inc. (Pinnacle) has performed a Wetland Determination and Delineation of the Wayzata East Middle School (ISD#284) property located at 12000 Ridgemount Avenue West in Plymouth, Hennepin County, Minnesota which is within portions SW ¼ SE ¼ of Section 35, TWP118N, R22W (Lat: 44.97959444; Long: -93.43388889°, WGS84). The site consists of a middle school building, wooded areas, community/school playfields, and wetlands. The delineation was conducted in substantial conformance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual, updated February 25, 1997, and utilizes the Midwest Region Supplement. The field portion of the wetland delineation was performed within the growing season. The attached report documents the methods and findings of the delineation.

During the field assessment, it was determined that one area within the project area met two of the mandatory criteria of a wetland. The boundaries were flagged for survey by Sunde Land Surveying. The delineation will be reviewed by a representative of the City of Plymouth, who serve as the local governmental unit administering Minnesota's Wetland Conservation Act, and the U.S. Army Corps of Engineers, who administers the Clean Water Act.

If you have any questions or wish to discuss any particular aspect of the project, please contact me at (763) 277-8410. We look forward to being of continued service to you.

Sincerely,

PINNACLE ENGINEERING, INC.

Scott Thelen
Senior Project Scientist, Certified Wetland Scientist #1249

Corporate: 11541 95th Avenue North, Minneapolis, MN 55369
800-366-3406 · Main: 763-315-4501 · Fax: 763-315-4507
Minneapolis, MN · Rochester, MN · Omaha, NE · Minot, ND
www.pineng.com
24 Hr. Emergency Response: 1-866-658-8883

WETLAND DELINEATION REPORT

FOR:

Wayzata East Middle School
12000 Ridgemount Avenue West
Plymouth, Minnesota 55441

PREPARED FOR:

Sunde Land Surveying
9001 East Bloomington Freeway,
Suite 118
Bloomington, Minnesota 55420

SUBMITTED TO:

City of Plymouth
3400 Plymouth Boulevard
Plymouth, Minnesota 55447

PREPARED BY:

Pinnacle Engineering, Inc.
11541 95th Avenue North
Maple Grove, Minnesota 55369

October 19, 2018
(Revised November 29, 2018)

Pinnacle Project Number: EM21080973

WETLAND DETERMINATION AND DELINEATION

FOR:

WAYZATA EAST MIDDLE SCHOOL
12000 RIDGEMOUNT AVENUE WEST
PLYMOUTH, MN 55441

PREPARED FOR:

SUNDE LAND SURVEYING
9001 EAST BLOOMINGTON FREEWAY, SUITE 118
BLOOMINGTON, MINNESOTA 55420

PREPARED BY:

PINNACLE ENGINEERING, INC.
11541 95th AVENUE
MAPLE GROVE, MINNESOTA 55369

PINNACLE PROJECT NUMBER: EM21080973

OCTOBER 19, 2018
(REVISED NOVEMBER 29, 2018)

Prepared By:

Breeka Li Goodlander
Staff Scientist

Reviewed By:

Scott Thelen
Senior Scientist
MN Certified Wetland Delineator # 1249

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FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 Introduction

Pinnacle Engineering, Inc. (Pinnacle) performed a Wetland Determination and Delineation of the Wayzata East Middle School (Independent School District (ISD) No 284) property located at 12000 Ridgemount Avenue West in Plymouth, Hennepin County, Minnesota which is within portions of SW ¼ SE ¼ Section 35, TWP118N, R22W (Lat: 44.97959444; Long: -93.43388889°, WGS84). The Site consists of a middle school, athletic fields, parking areas, wooded areas, manicured lawns, and a wetland. The delineation was conducted in substantial conformance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual, updated February 25, 1997, and utilizes the Midwest Region Supplement. The field portion of the wetland delineation was performed within the growing season. The attached report documents the methods and findings of the delineation.

1.2 Scope

Pinnacle conducted the on-site Level 2 Wetland Determination and Delineation in accordance with the criteria established in the 1987 U. S. Army Corps of Engineers Wetland Delineation Manual, updated in 1997, utilizing the Midwest Region Supplement. The work included the following items:

- Review of County Soil Surveys, USGS topographic maps, National Wetland Inventory (NWI) Maps, Public Water Inventory (PWI) maps, and aerial photographs.
- A site reconnaissance to determine if and where jurisdictional wetlands exist.
- Delineation of the identified wetlands within the area of interest boundaries.
- Preparation and submittal of this report summarizing the findings of our work.

2.0 BACKGROUND INFORMATION

2.1 Site Location and Use

The project area is located at 12000 Ridgemount Avenue West in Plymouth, Minnesota, which is within portions of SW ¼ SE ¼ Section 35, TWP118N, R22W (Lat: 44.97959444; Long: -93.43388889°, WGS84). The Site consists of a middle school, athletic fields, parking areas, wooded areas, manicured lawns, and a wetland. The Property Identification Number (PID) for the project area is 3511822340001. Figure 1 shows the site in its current configuration.

2.2 Surveys and Maps

Pinnacle conducted a review of the Hennepin County Soil Survey, topographic maps, Protected Waters Inventory (PWI), and National Wetland Inventory (NWI) maps for the

vicinity of the Site. The following sections summarize the information available at the time of this review.

2.2.1 USGS Topographic Maps

The topographic map depicted the parcel as a steeply sloping area to the west in the northwestern portion and a relatively consistent topographic setting in the eastern portion, with a wetland in a depressed area in the northeastern portion of the Site. The sloping portion of the Site has a range in elevation of approximately 49 feet; from 976 feet mean sea level (MSL) elevation in the northwest corner to 924 feet MSL in the central portion of the Site (Figure 2). The eastern portion of the Site is relatively level with a range in elevation of approximately 10 feet, from 924 feet MSL to 910 feet MSL, with the northern depression having a range of approximately 18 feet from 924 feet MSL to 906 feet MSL, corresponding to Wetland 1 (Figure 2). Based on the contour intervals on the topographic map and our Site observations, surficial drainage appears to be to the northeast.

2.2.2 Soil Survey

The Natural Resources Conservation Service (NRCS) Web Soil Survey, which is included as Figure 3, was reviewed for information pertaining to the Site soils. The Soil Survey indicated the Site soils are comprised of Lester loam, 6-10 percent slopes (L22C2), moderately eroded; Lester loam, 10-16 percent slopes, moderately eroded (L22D2); Lester loam, 10-22 percent slopes (L22E); Lester loam, morainic, 25-35 percent slopes, (L22F); Cordova loam, 0-2 percent slopes (L23A); Le Sueur loam,1-3 percent slopes (L25A); Hamel, overwash-Hamel complex, 0-3 percent slopes (L36A); Nessel loam, 1-3 percent slopes (L44A); Dundas-Cordova complex, 0-3 percent slopes (L45A); Muskego and Houghton soils, 0-1 percent slopes (L50A); Lester-Malardi complex, 18-35 percent slopes (L70E); Urban land-Udorthents, wet substratum, complex, 0-2 percent slopes (U1A); Udorthents, wet substratum, 0-2 percent slopes (U2A); and Urban land-Udorthents (cut and filled land) complex, 0-6 percent slopes (U6B). Of the identified soil types, the NRCS indicated that Cordova loam,0-2 percent slopes, and Muskego and Houghton soils, 0-1 percent slopes, are hydric soils. Soil samples collected during the wetland delineation were characterized and recorded on the data forms, which are included as Appendix A.

2.2.3 Wetland Inventory Maps

The United States Fish and Wildlife Service (USFWS)-National Wetland Inventory (NWI) map for the Site area depicted five wetland types within or adjacent to the Site boundaries. The wetland types are identified as Freshwater Pond (PABG), Freshwater Emergent Wetland (PEM1A), Freshwater Emergent Wetland (PEM1C), Freshwater Forested/Shrub Wetland (PFO1A), and Freshwater Emergent Wetland (PEM1A), which correspond to Wetland 1. NWI maps generally show the approximate location of wetlands as of the time of publication. The NWI map, as reviewed by Pinnacle, was compiled based on aerial photo interpretation and field surveys and is included as Figure 4.

2.2.4 Public Waters Inventory

The Minnesota Department of Natural Resources Public Waters Inventory (PWI) produces a map of the protected wetlands and waters of the State. The PWI map, which is included as Figure 5, indicates no public waters area located within the Site boundaries.

3.0 WETLAND DETERMINATION

3.1 Methodology

The wetland determination was made utilizing the techniques of the Routine Onsite Method, as described in the 1987 U. S. Army Corps of Engineers Wetland Delineation Manual, updated February 25, 1997 and utilizing the Midwest Region Supplement. Determination of hydric soils, site hydrology, and hydrophytic vegetation were made according to the procedures and guidelines described in the manual. Sampling locations were selected to be representative of wetland/upland transition areas.

Scott Thelen and Breeka Li Goodlander of Pinnacle assessed the wetlands in the project area on October 2, 2018. The assessment included probing the soils to observe the color and moisture, as well as other available hydric soil indicators, such as mottling, gleying, and oxidized root channels. The characteristics noted for each sampling location are documented in the data forms, which are included in Appendix A. Survey markers were placed along the delineated edge of the wetland for survey by Sunde Land Surveying. A figure of the wetland area is included as Figure 2.

To date, 2018 seasonal rainfall amounts were wetter than the average amount of rainfall for this area, even though July and August were considered average. September was 4.14 inches above the average amount of rainfall for this area. Rain precipitation in the amount of 5.72 inches occurred the fourteen days prior to the wetland delineation field visit. The Minnesota Climatology Working Group identifies the area as having been "wet" for the area. Pinnacle delineated complete or portions of one wetland basin within the Site during the field assessment.

3.2 Wetland Descriptions

Table 3.2.1 below summarizes the findings of the field investigation. Descriptions of the observed wetland types follow the summary table. Data forms for the field investigation can be found in Appendix A and photographs are included in Appendix C.

Wetland ID	Delineated Wetland Type	Wetland Size ac/sf		NWI Wetland Type	Dominant Wetland Vegetation	Hydric Soil (Yes/No)	Hydric Soil Indicator	Hydrology
1	Type 1, Seasonally flooded basin	2.45	9,915	PEM1A, PEM1C, PABG	Reed canary grass,	Yes	Depleted Below Dark Surface	Geomorphic Position (D2), FAC-Neutral Test

	Type 3, Shallow marsh Type 5, Open Water Wetland				common jewelweed		(A11), Depleted Matrix (F3)	(D5), Saturation (A3)

Wetland Type PEM1A
The NWI Cowardin wetland classification system identifies the PEM1A label for a wetland that consists of a palustrine basin, with persistent emergent vegetation, that is temporarily flooded, and usually occur within a depressional area. The NWI map for the Site area indicated one PEM1A wetland partially contained within the Site boundaries, which corresponds to portions of Wetland 1.

Wetland Type PEM1C
The NWI Cowardin wetland classification system identifies the PEM1C label for a wetland that consists of palustrine basin. This wetland label also contains persistent emergent vegetation characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichen. This vegetation is present for most the growing season in most of the year. These wetlands are usually dominated by perennial plants. This wetland is seasonally flooded. Surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding is variable, extending from saturated to the surface to a water table well below the ground surface. The NWI map for the Site area indicated one PEM1C wetland partially contained within the Site boundaries, which corresponds to portions of Wetland 1.

Wetland Type PABG
The NWI Cowardin wetland classification system identifies the PABG label for a wetland that consists of a palustrine basin, with an aquatic bed, that is intermittently exposed. The NWI map for the Site area indicated one PABG wetland partially contained within the Site boundaries, which corresponds to the majority of Wetland 1.

4.0 DISCUSSION

Pinnacle Engineering, Inc. (Pinnacle) performed a Wetland Determination and Delineation for the Wayzata East Middle School (ISD#284) property located at 12000 Ridgemount Avenue West in Plymouth, Hennepin County, Minnesota which is within portions of SW ¼ SE ¼ Section 35, TWP118N, R22W (Lat: 44.979783°; Long: -93.433933°, WGS84). The Site consists of a middle school, athletic fields, parking areas, wooded areas, manicured lawns, and a wetland. The Property Identification Number (PID) for the project area is 351182234001. The delineation was conducted in substantial conformance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual, updated February 25, 1997, and utilizes the Midwest Region Supplement.

The USGS topographic map review indicated the project area varies in elevation and hydrology collects in a depressional area within the northeast portion of the Site. Hydric soils, vegetation and geomorphic locations were observed in the wetland located within the Site boundaries. The soil survey map indicated the presence of hydric soils mainly in Wetland 1. The NWI map identified five wetland types on the Site, although the PEM1A and PFO1A mapped along the eastern boundary of the Site did not meet the wetland criteria during site assessment; therefore, were not flagged. The PWI map did not identify any protected water bodies within the project area.

To date, 2018 seasonal rainfall amounts were wetter than the average amount of rainfall for this area, even though July and August were considered average. Rain precipitation in the amount of 5.72 inches occurred the fourteen days prior to the wetland delineation field visit.

Wetland 1 is in a depressional area in the northeastern portion of the Site and surficial and groundwater hydrology appear to hydrate the wetland area. The wetland/upland transition is mostly topographically driven and closely follows the toe of the slope of the adjacent hillside. Wetland 1 is comprised of three wetland types, of which the PABG/PEM1A wetland types and PEM1C wetland type are separated by a paved walking path but connected via culverts.

One delineated wetland displayed wetland characteristics and met all three wetland criteria during the on-site investigation; therefore, Pinnacle placed flags along the wetland boundary. The delineation will be reviewed by the City of Plymouth, who serve as the local governmental unit administering Minnesota's Wetland Conservation Act and the U.S. Army Corps of Engineers, who administers the Clean Water Act.

5.0 CONCLUSION

Pinnacle Engineering, Inc. (Pinnacle) performed a Wetland Determination and Delineation of the Wayzata East Middle School (ISD#284) property located at 12000 Ridgemount Avenue West in Plymouth, Hennepin County, Minnesota. The delineation was conducted in substantial conformance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual, updated February 25, 1997, and utilizes the Midwest Regional Supplement.

During the field assessment, it was determined that one area within the project boundaries met all three mandatory criteria of a wetland, and the boundary was flagged and surveyed by Sunde Land Surveying. The delineation will be reviewed by the City of Plymouth, who serve as the local governmental unit administering Minnesota's Wetland Conservation Act and the U.S. Army Corps of Engineers, who administers the Clean Water Act.

6.0 STANDARD OF CARE

Environmental services performed by Pinnacle for the project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by environmental professionals currently practicing in this area under similar budget and time constraints. Recommendations or opinions contained in this report represent our professional judgment and are generally based upon available information and currently accepted practices for environmental professionals. Other than this, no other warranty is implied nor is it expressed.

7.0 REFERENCES

Eggers, Steve D. and Reed, Donald M., Wetland Plants and Plant Communities of Minnesota and Wisconsin, 1997, U. S. Army Corps of Engineers, St. Paul District.

Lyon, John Grimson, Practical Handbook for Wetland Identification and Delineation, 1993, Lewis Publishers, Boca Raton, Florida

United States Department of Agricultural, Natural Resources Conservation Service, Data Gateway <http://datagateway.nrcs.usda.gov/> (October 9, 2018).

Hennepin County Interactive Maps, <https://gis.hennepin.us/property/map/default.aspx> (October 9, 2018).

U.S Fish and Wildlife Service National Wetlands Inventory http://www.fws.gov/wetlands/data/WebMapServices.html > (October 9, 2018).

U. S. Army Corps of Engineers, U. S. Army Corps of Engineers Wetland Delineation Manual, 1987, updated on February 25, 1997, Washington, D. C.

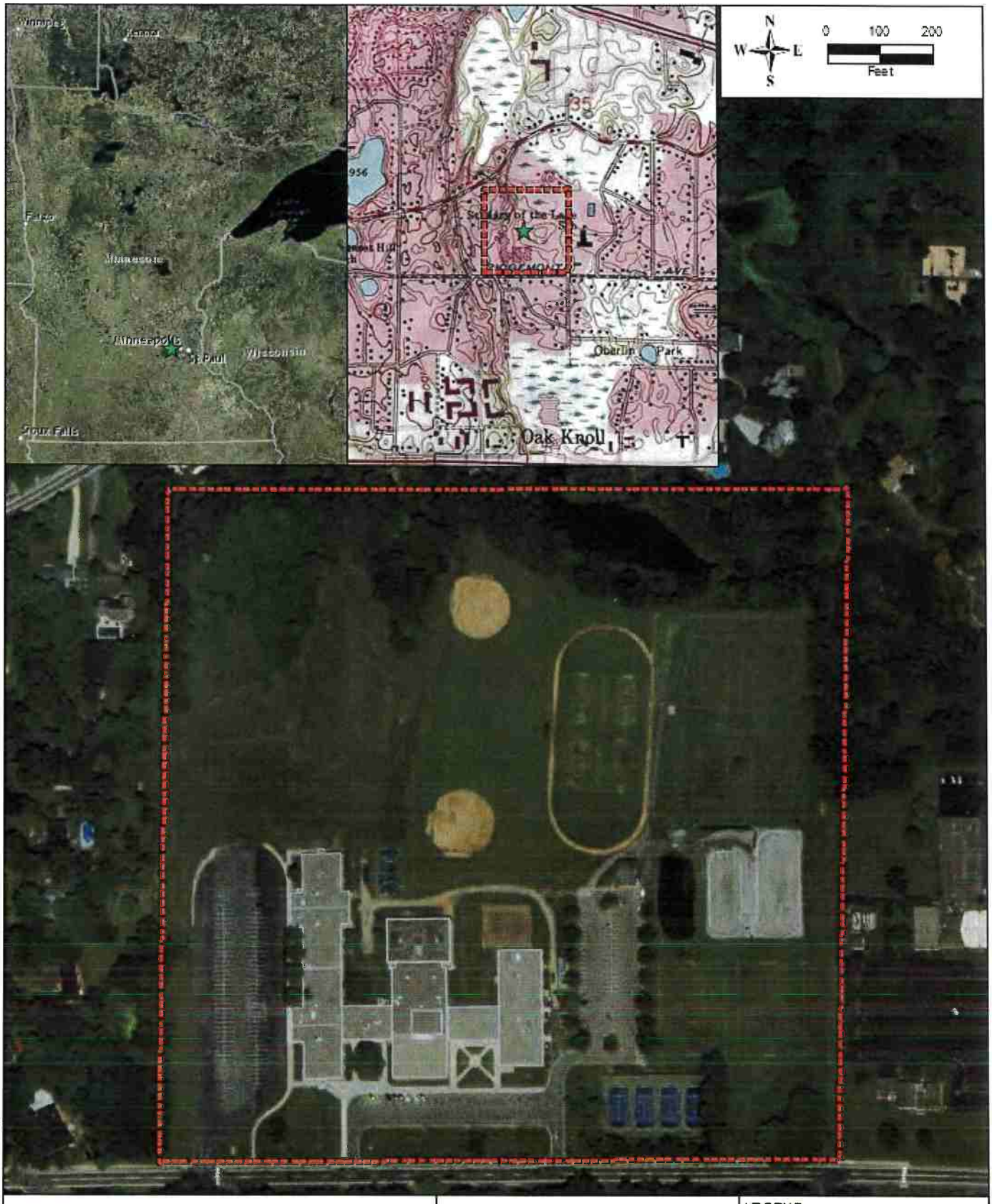
Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, October 2010, Washington, D. C.

Minnesota Geospatial Commons (https://gisdata.mn.gov/dataset/water-mn-public-waters), NWI data (https://gisdata.mn.gov/dataset/water-nat-wetlands-inv-2009-2014), generated by Breeka Li Goodlander using <https://gisdata.mn.gov/>, October 9, 2018.

FIGURE 1

Site Location Map

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

PROJECT NUMBER: EM20180973 | DRAWN: BG | REVIEWED: MB | DATE: 10/09/2018

Figure 1.
Site Location

Wayzata East Middle School
12000 Ridgemount Ave W
Plymouth, MN 55441

LEGEND

Site Boundary

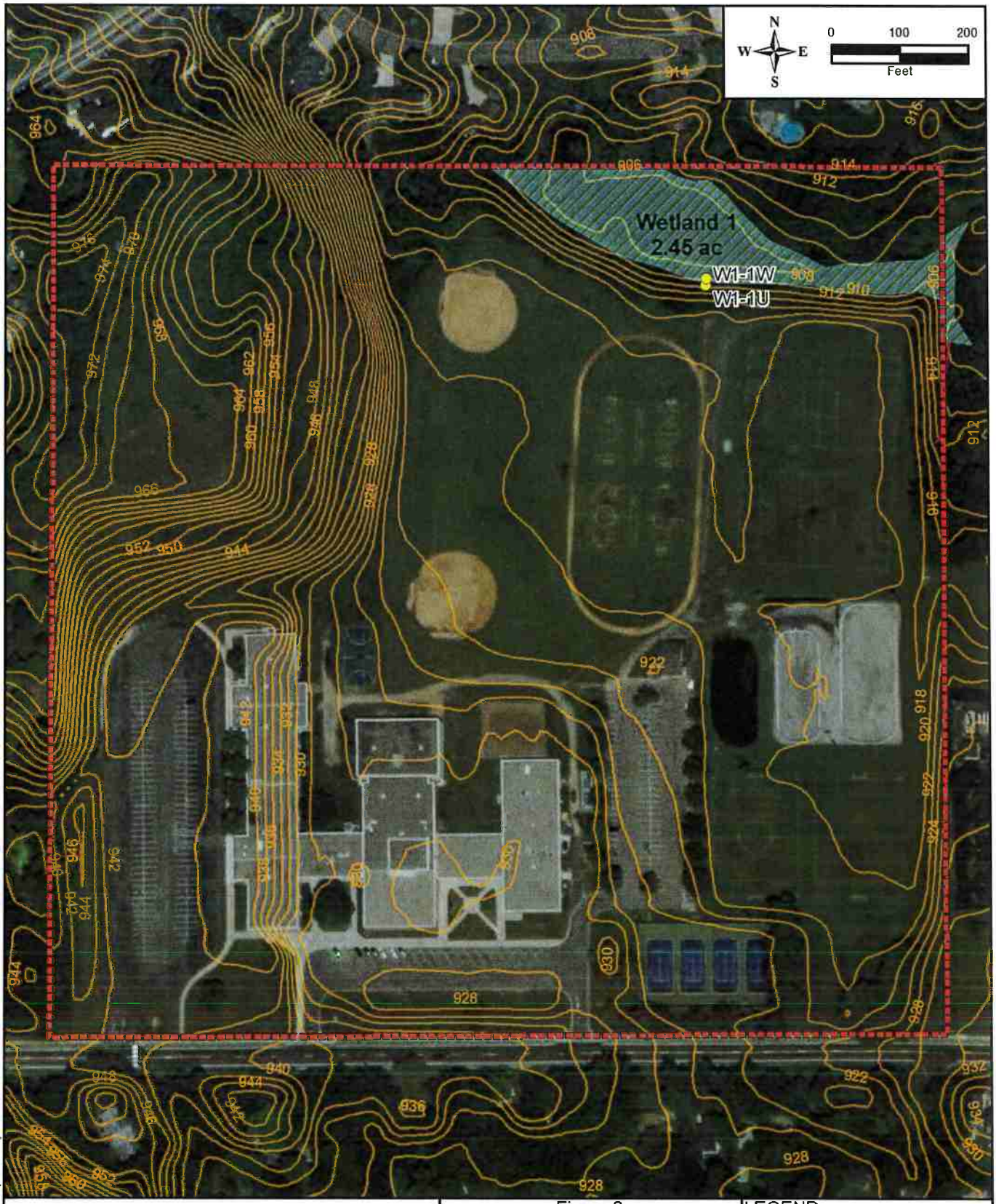
Site Location

File: Figure 1 - Site Location1 10.5.mxd

FIGURE 2

Site Layout

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

PROJECT NUMBER: EM20180973 | DRAWN: SG | REVIEWED: MB | DATE: 11/29/2018

Figure 2.
Site Layout
(Revised)

Wayzata East Middle School
12000 Ridgemount Ave N
Plymouth, MN 55441

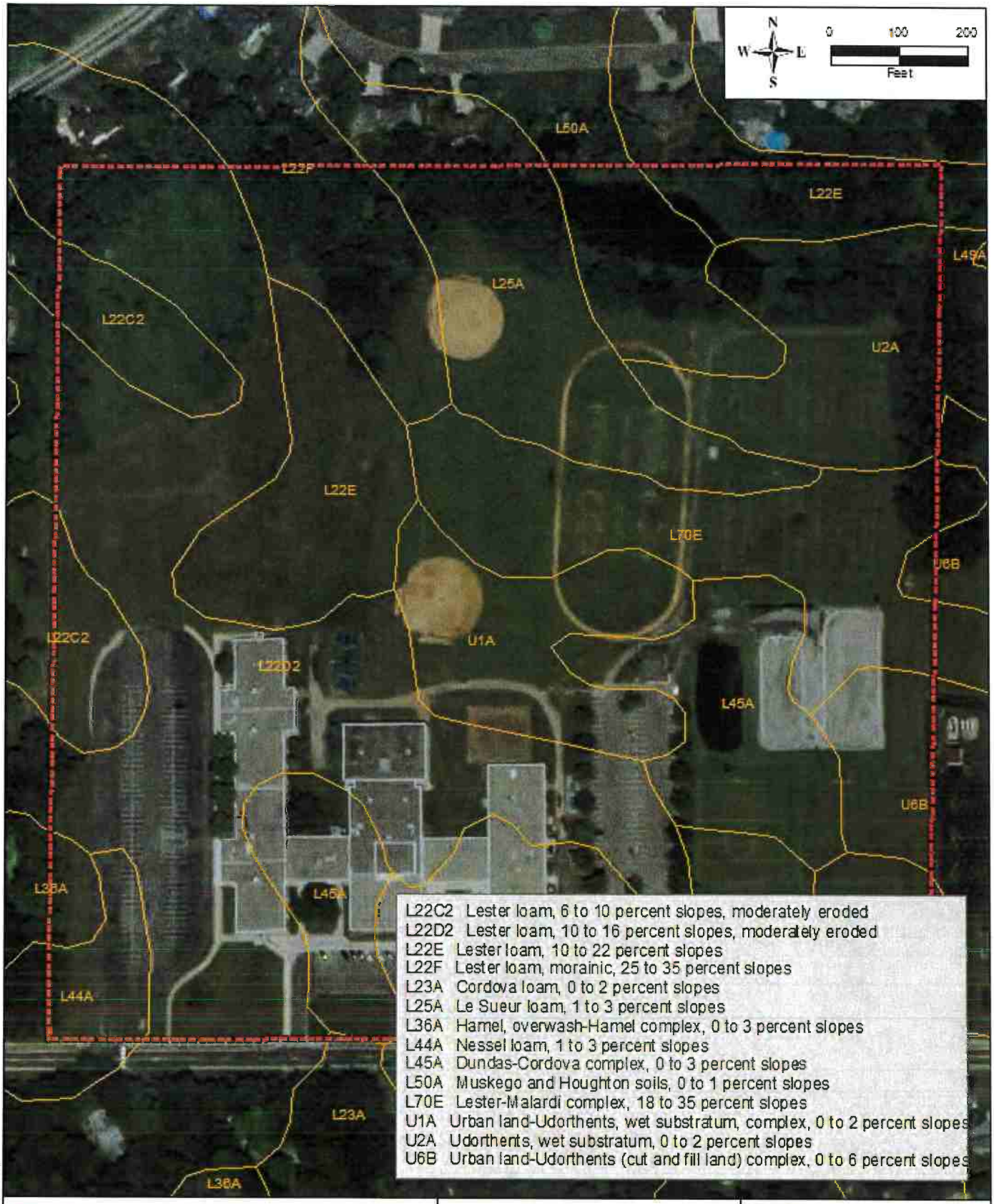
LEGEND
- Site Boundary
- Sampling Point
- Transect
- Wetland
- Water Conveyance
- 2ft Contour

File: Figure 2 - Site Layout (Revised).mxd

FIGURE 3

Soil Survey

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

Figure 3.
NRCS Soils

Wayzata East Middle School
12000 Ridgemount Ave W
Plymouth, Ave 55441

LEGEND
Site Boundary
NRCS Soils

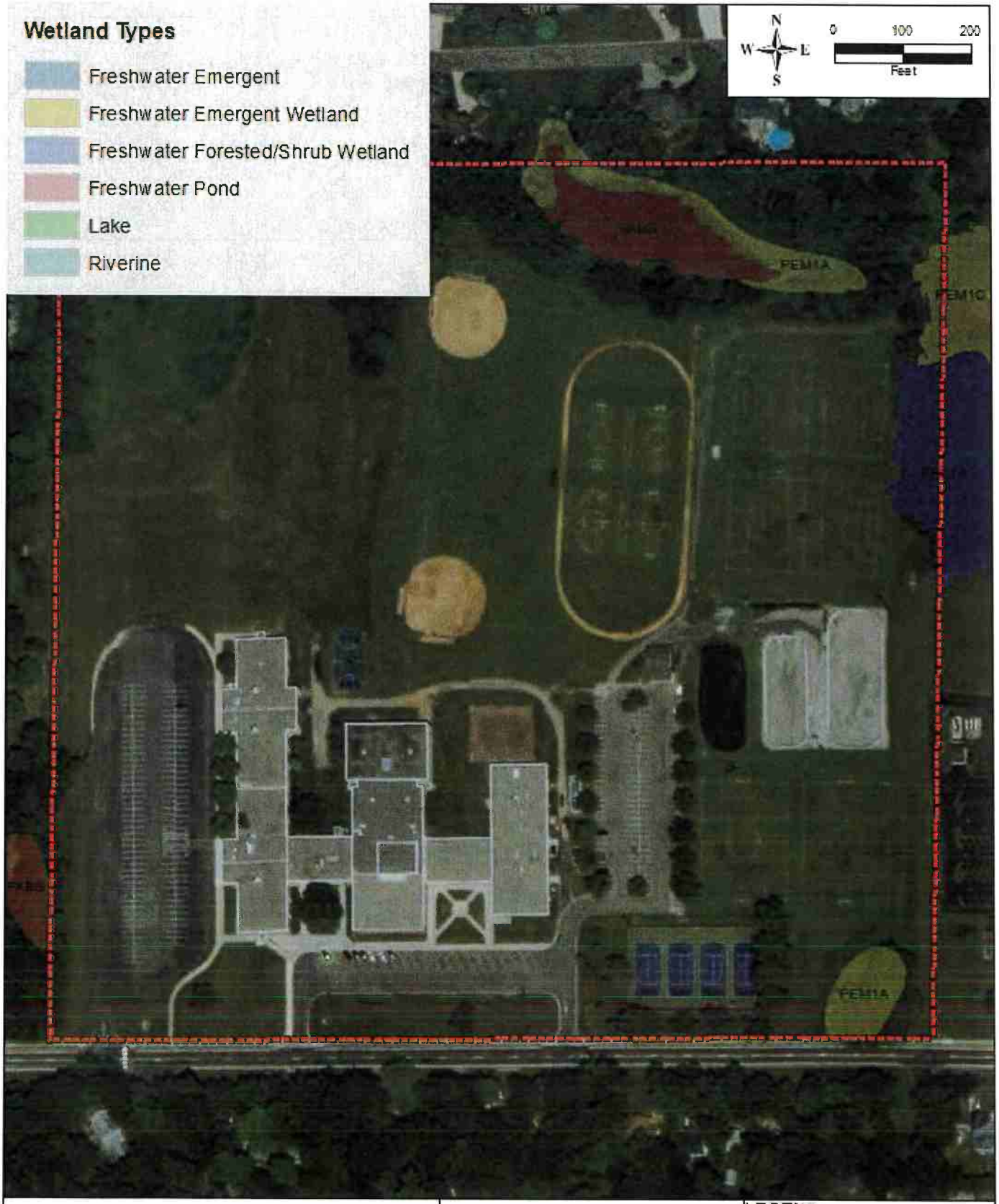
PROJECT NUMBER: EM20180973 | DRAWN: BG | REVIEWED: MB | DATE: 10/09/2018

File: Figure 3 - NCRS Soils.mxd

FIGURE 4

National Wetland Inventory

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

Figure 4.
NWI Wetlands Map

Wayzata East Middle School
12000 Ridgemount Ave W
Plymouth, MN 55441

LEGEND
Site Boundary

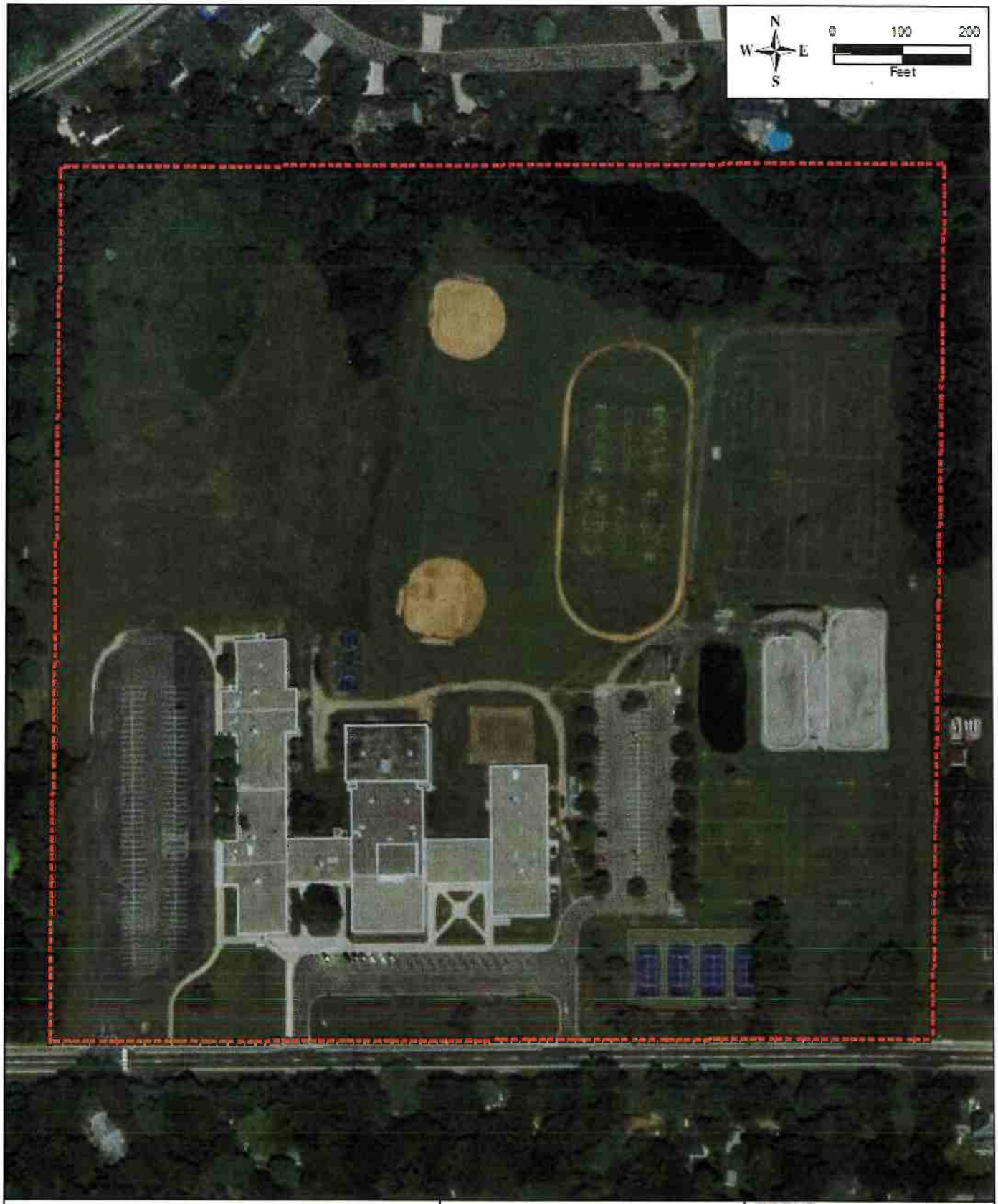
PROJECT NUMBER: EM20180973 | DRAWN: BG | REVIEWED: MB | DATE: 10/09/2018

File: Figure 4 - NWI Map.mxd

FIGURE 5

Public Waters Inventory

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

Figure 5.
MnDNR PWI Map

Wayzata East Middle School
12000 Ridgemount Ave W
Plymouth, MN 55441

LEGEND
- Site Boundary
- Public Waters
- PWI Watercourses

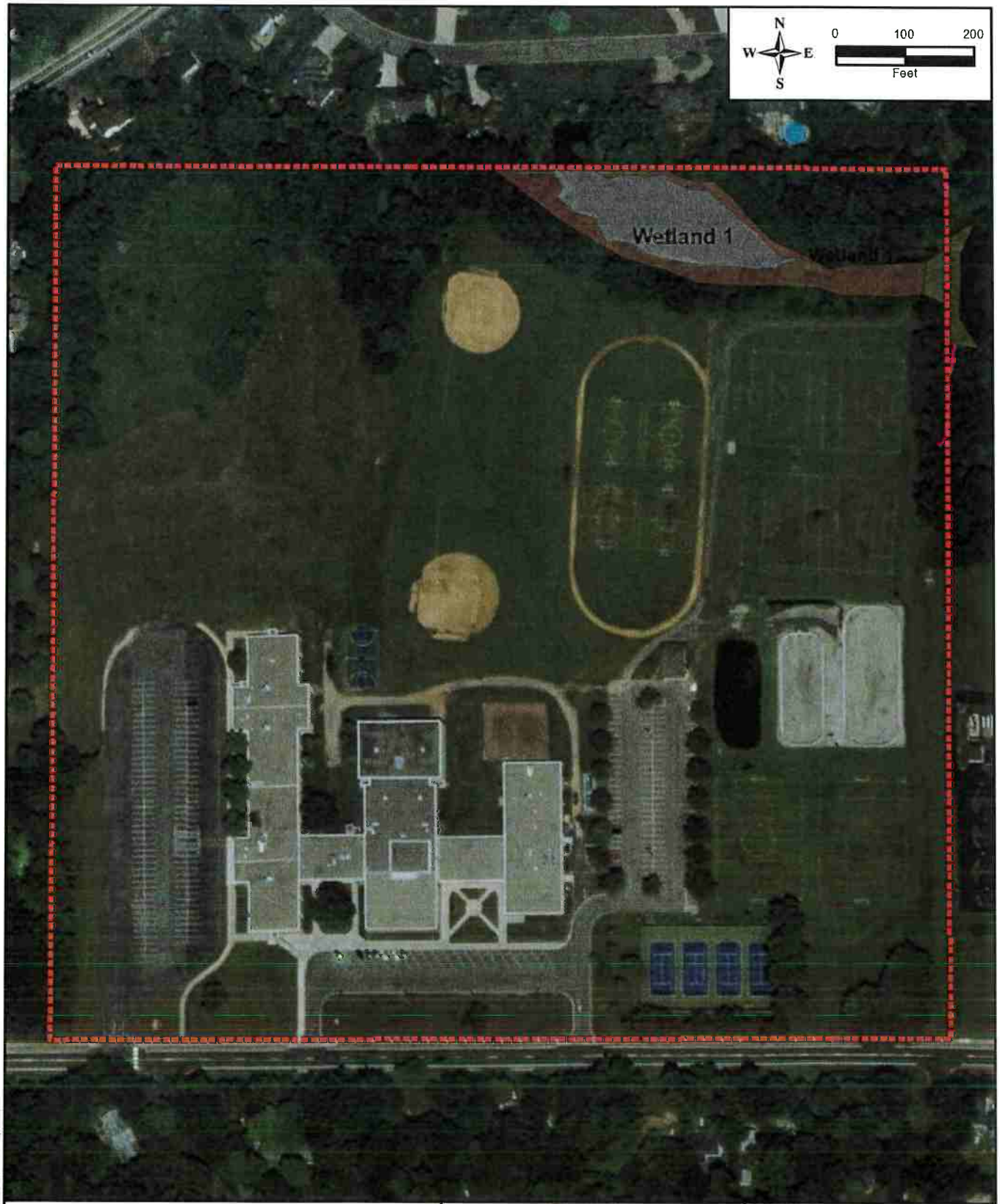
PROJECT NUMBER: EM20160973 | DRAWN: BG | REVIEWED: MB | DATE: 10/09/2018

File: Figure 5 - PWI Maps.mxd

FIGURE 6

Wetland Communities Map

WETLAND DETERMINATION AND DELINEATION



Pinnacle Engineering

11541 95th Ave N.
Minneapolis, MN 55369
(763) 315-4501
www.pineng.com

PROJECT NUMBER: EM20180973 | DRAWN: BG | REVIEWED: MB | DATE: 11/29/2018

Figure 6.
Wetland Communities
(Revised)

Wayzata East Middle School
12000 Ridgemount Ave N
Plymouth, MN 55441

LEGEND
- Site Boundary
- Open Water Wetland
- Shallow Marsh
- Seasonally Flooded Basin
- Water Conveyance

File: Figure 6 - Wetland Communities.mxd

APPENDIX A

WETLAND DETERMINATION DATA FORMS
Midwest Region

WETLAND DETERMINATION AND DELINEATION

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Wayzata East Middle School City/County: Plymouth/Hennepin Sampling Date: 10/2/2018

Applicant/Owner: ISD 284 State: MN Sampling Point: W1-1W

Investigator(s): Scott Thelen Section, Township, Range: S35 T118N R22W

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave

Slope (%): 2 Lat: 44.979783° Long: -93.433933° Datum: WGS84

Soil Map Unit Name: Muskego and Houghton soils, 0 to 1 percent slopes NWI classification: PABG

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetland adjacent to school manicured lawns (baseball and soccer fields).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phalaris arundinacea*	40	Yes	FACW
2. *Impatiens capensis*	10	No	FACW
3. *Solidago gigantea*	10	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	60 (A)		120 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W1-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Loamy/Clayey	
6-9	10YR 4/1	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
9-18	10YR 4/2	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- _X_ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- _?_ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _X_ No ____

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- _X_ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- _X_ Geomorphic Position (D2)
- _X_ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No _X_	Depth (inches): ____
Water Table Present?	Yes ____	No _X_	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes _X_	No ____	Depth (inches): 10

Wetland Hydrology Present? Yes _X_ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Wayzata East Middle School City/County: Plymouth/Hennepin Sampling Date: 10/2/2018

Applicant/Owner: ISD 284 State: MN Sampling Point: W1-1U

Investigator(s): Scott Thelen Section, Township, Range: S35 T118N R22W

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave

Slope (%): 2 Lat: 44.979783° Long: -93.433933° Datum: WGS84

Soil Map Unit Name: Muskego and Houghton soils, 0 to 1 percent slopes NWI classification: PABG

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Wetland adjacent to school manicured lawns (baseball and soccer fields).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	5	Yes	FACW
2. *Acer rubrum*	5	Yes	FAC
3. *Populus deltoides*	5	Yes	FAC
4.			
5.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Glechoma hederacea*	10	Yes	FACU
2. *Cirsium vulgare*	10	Yes	FACU
3. *Urtica dioica*	5	No	FACW
4. *Parthenocissus quinquefolia*	5	No	FACU
5. *Dactylis glomerata*	5	No	FACU
6. *Asclepias syriaca*	10	Yes	FACU
7. *Phalaris arundinacea*	5	No	FACW
8.			
9.			
10.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	10	x 3 =	30
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	65 (A)		220 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W1-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	
8-15	10YR 4/3	100					Loamy/Clayey	
15-17	10YR 4/2	100					Loamy/Clayey	
17-18	10YR 4/2	95	10YR 4/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
18-20	10YR 4/2	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX B

WETLAND BOUNDARY APPLICATIONS

WETLAND DETERMINATION AND DELINEATION

PART ONE: Applicant Information

If applicant is an entity (company, government entity, partnership, etc.), an authorized contact person must be identified. If the applicant is using an agent (consultant, lawyer, or other third party) and has authorized them to act on their behalf, the agent's contact information must also be provided.

Applicant/Landowner Name: ISD#284
Mailing Address: 210 County Road 101 N, P.O. Box 660, Wayzata, MN 55391
Phone: 763-745-5171
E-mail Address: Steven.dey@wayzataschools.org

Authorized Contact (do not complete if same as above): Pinnacle Engineering, Inc., Scott Thelen
Mailing Address: 11541 95th Avenue North, Maple Grove, MN 55369
Phone: 763-277-8410
E-mail Address: sthelen@pineng.com

Agent Name: Scott Thelen
Mailing Address: 11541 95th Avenue North, Maple Grove, MN 55369
Phone: 763-277-8410
E-mail Address: sthelen@pineng.com

PART TWO: Site Location Information

County: Hennepin **City/Township:** Plymouth
Parcel ID and/or Address: **PID 351182234001**
Legal Description (Section, Township, Range): S35, T118N, R22W
Lat/Long (decimal degrees): Lat: 44.979783° N, Long: -93.433933° W
Attach a map showing the location of the site in relation to local streets, roads, highways. Attached
Approximate size of site (acres) or if a linear project, length (feet): 37.75-acres

If you know that your proposal will require an individual Permit from the U.S. Army Corps of Engineers, you must provide the names and addresses of all property owners adjacent to the project site. This information may be provided by attaching a list to your application or by using block 25 of the Application for Department of the Army permit which can be obtained at:

http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform_4345_2012oct.pdf

PART THREE: General Project/Site Information

If this application is related to a delineation approval, exemption determination, jurisdictional determination, or other correspondence submitted ***prior to*** this application then describe that here and provide the Corps of Engineers project number.

Describe the project that is being proposed, the project purpose and need, and schedule for implementation and completion. The project description must fully describe the nature and scope of the proposed activity including a description of all project elements that effect aquatic resources (wetland, lake, tributary, etc.) and must also include plans and cross section or profile drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts.

Building and ground improvements.

PART FOUR: Aquatic Resource Impact[1] Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

Aquatic Resource ID (as noted on overhead view)	**Aquatic Resource Type** (wetland, lake, tributary etc.)	**Type of Impact** (fill, excavate, drain, or remove vegetation)	**Duration of Impact** Permanent (P) or Temporary (T)[1]	**Size of Impact**[2]	**Overall Size of Aquatic Resource** [3]	**Existing Plant Community Type(s)** in Impact Area[4]	**County, Major Watershed #, and Bank Service Area #** of Impact Area[5]

[1]If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".
[2]Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).
[3]This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".
[4]Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2.
[5]Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

If any of the above identified impacts have already occurred, identify which impacts they are, and the circumstances associated with each:

PART FIVE: Applicant Signature

☐ Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature: _____ Date: October 9, 2018

I hereby authorize Pinnacle Engineering, Inc., to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

[1] The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.

Project Name and/or Number:

Attachment A
Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply):

☐ **Wetland Type Confirmation**

☒ **Delineation Concurrence**. Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.).

☒ **Preliminary Jurisdictional Determination**. A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed.

☐ **Approved Jurisdictional Determination**. An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process.

In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the *Guidelines for Submitting Wetland Delineations in Minnesota* (2013).
http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx

APPENDIX C

Wetland Photographs

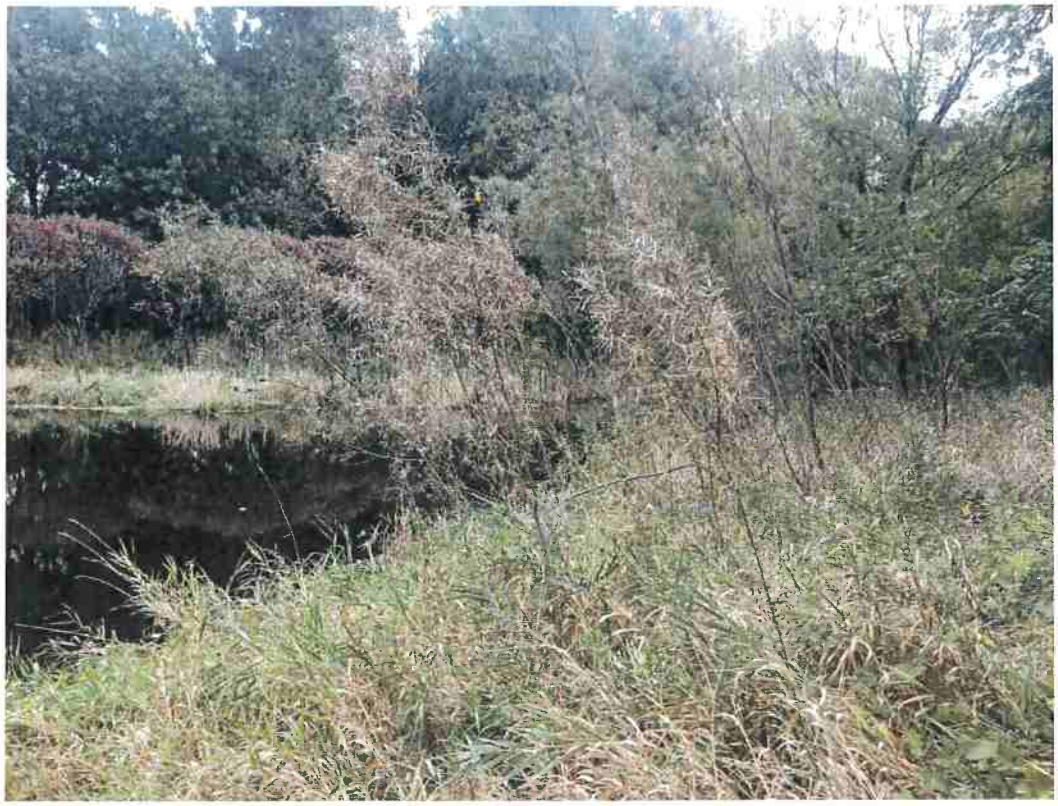
WETLAND DETERMINATION AND DELINEATION

View of Wetland 1 looking east on path.

View of Wetland 1 looking northeast on path.

View of Wetland 1 looking north at sampling point W1-1W.

View of Wetland 1 vegetation facing west at sampling point W1-1W.



View of Wetland 1, looking east at sampling W1-1W.

View of culvert draining from the south to Wetland 1.