Micron Central New York Semiconductor Manufacturing Complex

Buxton Creek

Stream and Wetland Mitigation Plan

Oswego County, NY

PREPARED BY:

The Wetland Trust, Inc.

4729 State Route 414

Burdett, NY 14818

www.thewetlandtrust.org

May 2025

Table of Contents

List of Figures

List of Tables

List of Appendices

Appendix C. Wetland Determination Map, Summary Table, and Data Forms
Appendix D. Species Lists
Appendix E. Invasive Species Management Plan
Appendix F. Wetland Design Forms
Appendix G. SWPPP (to be added in future submittals)
Appendix H. Buxton Creek Stream Plan Sets
Appendix I. Long Term Management Plan

List of Related Documents

Overview of Stream/Wetland Mitigation
Fish Creek- Stream and Wetland Mitigation Plan
Upper Caughdenoy Creek Wetland Mitigation Plan
Lower Caughdenoy Creek Wetland Mitigation Plan
Sixmile Creek Wetland Mitigation Plan
Oneida River Wetland Mitigation Plan

1. Introduction and Objectives

Six sites in Oswego County make up the Permittee Responsible Offsite Compensatory Mitigation Project (Project) for the Micron NY Semiconductor Manufacturing, LLC (Micron) semiconductor fabrication site in the town of Clay, Onondaga County, New York. The Buxton Creek Stream and Wetland Mitigation Plan (Buxton Creek Plan) location is along the eastern stretch of Bell Road in the Town of Schroeppel, NY. The Project will address the total mitigation need for wetland credits and stream restoration to meet Micron permit requirements. The final number of credits required for compensation is still pending as of the drafting of this plan, however, an Overview document accompanying the six plans will be updated with final credit accounting. TWT submits this Buxton Creek Plan as one of six plans to satisfy Project mitigation needs and in fulfillment of the requirements of 33 C.F.R. Part 332 (2024).

This Buxton Creek Plan includes both stream and wetland mitigation components. Stream restoration will be achieved through the construction of new channels to replace the ditches where the altered portion of Buxton Creek currently flows and integrates them into a stream/wetland complex. Re-establishment of wetlands will be the primary approach to achieving the necessary credits. Design and hydrology analysis assistance by Ramboll largely informs and verifies the stream restoration component of this plan following the extensive field investigation and conceptual approach TWT provided.

The objectives of the Buxton Creek Plan are to develop approximately 97 wetland mitigation credits (USACE) or 116 mitigation acres (NYSDEC) toward a total compensation requirement of 414 credits/acres for the entire project. This includes:

- Re-establish wetlands to generate 89 USACE wetland credits equivalent to the creation of 89 NYSDEC wetland mitigation acres, including:
    - 11.2 acres of PEM - Shallow Emergent Marsh
    - 18.7 acres of PEM - Deep Emergent Marsh
    - 31.7 acres of PFO - Floodplain Forest
    - 24.3 acres of PFO - Red Maple Hardwood Swamp
    - 2.9 acres of PFO - Hemlock Hardwood Swamp
- Rehabilitate wetlands of the above cover types to generate 7.9 USACE wetland credits equivalent to the enhancement of 27.5 NYSDEC wetland mitigation acres.
- Establish 76.1 acres of upland buffer habitat including:
    - 25.9 acres of herbaceous upland buffer habitat
    - 50.2 acres of shrub/forested upland buffer habitat

- Construct 8,617 feet of Buxton Creek stream channels to develop wetland/stream complexes on the site.

The distribution of wetland types may change due to balancing distribution among the other five mitigation plans in development. The distribution of wetland cover types, mitigation type, and acreage is dependent on site-specific characteristics which ultimately determine what wetlands are suitable at specific locations.

2. Site Description

The Buxton Creek Site is approximately 253.9 acres in size in the Town of Schroeppel, Oswego County, New York (**Figure 2-1**). The Site is within the Oneida River 12-digit HUC (041402020905) watershed, and the U.S. Geological Survey 7.5-minute quadrangle indexed as Central Square. Coordinates for the approximate center of the Site are: [43.28625145, -76.23092591]. The Site is bisected by Bell Road and west of Chesbro Road (**Figure 2-2**).

2.1 Site Selection

The Buxton Creek Mitigation Site was selected along with five other sites to satisfy compensatory mitigation requirements for Micron Campus Impacts using site selection protocols described in Section 2.1 and 4.1 of the Micron Overview of Stream/Wetland Compensation on Six Mitigation Sites document. This Site is particularly well suited for restoration of a stream/wetland complex. TWT and Ramboll performed assessments of all TWT-held Wetland Mitigation properties for potential restoration of stream/wetland complexes. While all sites have some potential, the Buxton Creek site has a combination of:

- heavily disturbed and modified stream reaches,
- very flat topography,
- thick clay and compacted sand/clay layers near the surface,
- a clear history of stream wetland complexes and beaver meadows,
- sufficient perennial flow in the existing stream to support the desired hydrology and channel design, and
- extensive opportunity for construction of adjacent wetlands on either side of the designed stream channels.

2.2 Site Protection

The Wetland Trust, Inc. (TWT) is a 501(c)(3) nonprofit corporation and qualifying conservation organization (NYS ECL) whose mission is the protection, conservation, and restoration of wetlands and other critical habitat. TWT owns the Buxton Creek site fee simple and in perpetuity,

Figure 2-1. Wetland Mitigation Sites Location Overview

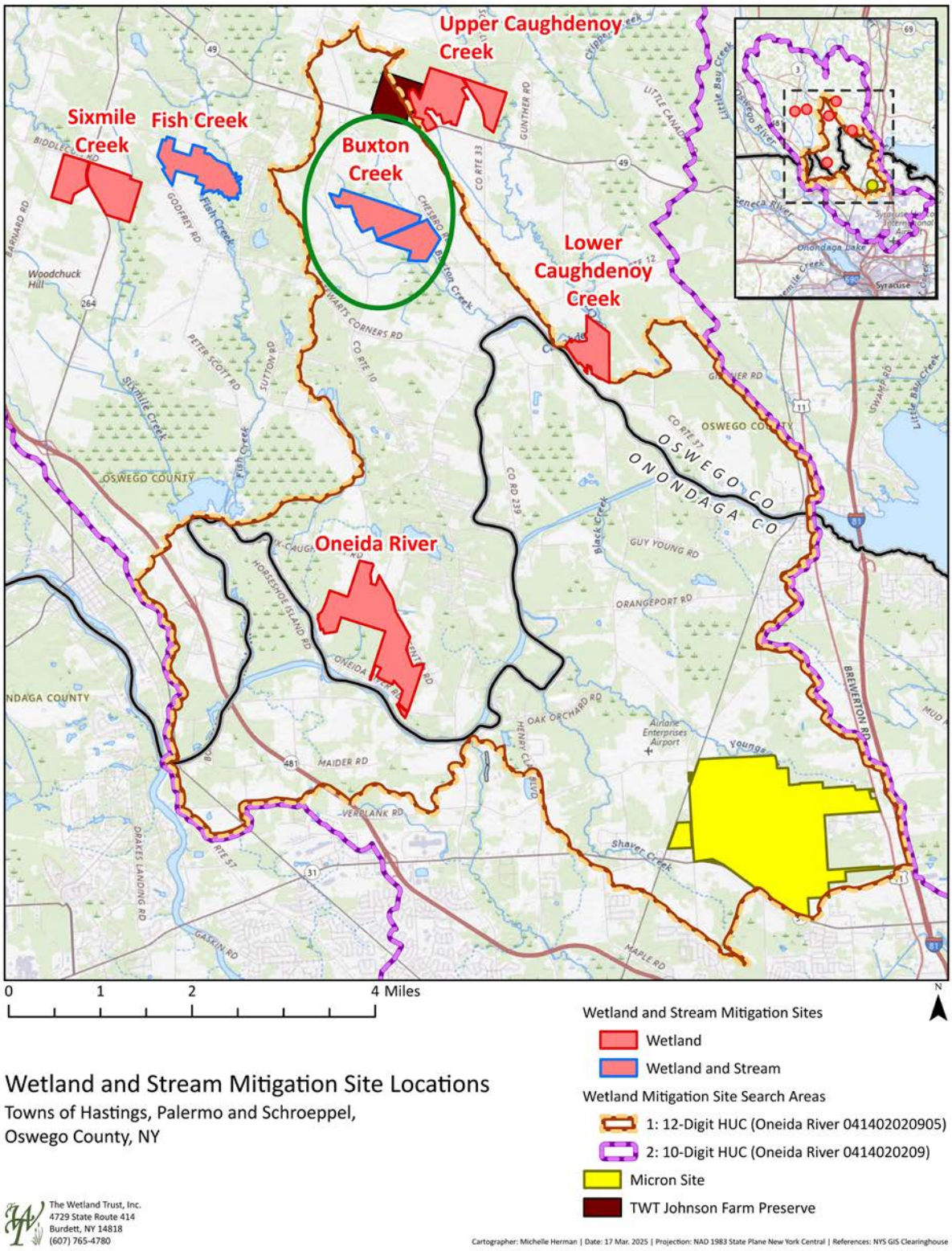


Figure 2-2. Buxton Creek Property (2023)

Figure 2-2: Imagery (2023)
Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

with provisions to transfer to other similar nonprofits its lands and stewardship funds should TWT fail. All sites will receive the same protection. There are two layers of protection for this site:

First, TWT will own the Buxton Creek mitigation site in perpetuity. TWT's vested interest in the site through fee-simple ownership reduces the risk of failure to satisfy performance standards.

Second, TWT will file a USACE-approved Conservation Easement (CE, **Appendix A**) with the Oswego County Clerk. The Wetland Conservancy, Inc. (TWC), P.O. Box 220, Burdett, NY 14818-0220, a 501(c)(3) nonprofit corporation and qualifying conservation organization (NYS ECL), will be the easement holder. The easement will cite specific conditions and prohibitions and apply to the credit generating areas of the site. The site plan provides the rationale for the easement and assists in its enforcement. The CE names the USACE and NYSDEC as third-party enforcement entities.

With the exception of activities approved as part of this Project permit or other activities approved by the USACE and NYSDEC, no further alterations within the easement boundary shall occur.

3. Baseline Information

3.1 Land Use History

Historic

Historic land use on the property, likely since European settlement, predominantly consisted of commercial agriculture. The extensive actions taken to drain and clear fields are visible in the aerial photographs (**Appendix B**). Early imagery shows a landscape largely cleared of forest, and the earliest aerial photos available (1950's) show nearly the entire parcel denuded of woody vegetation with linear features visible, indicating efforts to drain the fields. The pond in the northwest portion of the site (approximately 0.25 acres) pre-dated imagery taken in 1955.

Signs of a historic stream, a tributary to Buxton Creek, are visible in imagery and old surveys, starting in the northwestern area of the property and flowing through the field to a drainage ditch that runs through the property to a culvert on Bell Road. By 1978 the significantly altered creek was routed into a drainage ditch, which is where the tributary to Buxton Creek flows today. Between 1978 and 1994, another large ditch was excavated along the southwestern site boundary. The main channel of Buxton Creek flows across the property from north to south in the eastern portion of the site. The creek received the same treatment as the tributary, forcing the flow into a straightened deep ditch to dewater the fields for cultivation. The two altered stream channels rejoin on property south of the site, and flow under a bridge part of the former railbed (now public trail).

Current Land Use

Present day activities largely consist of commercial crop production (soybeans in 2024, corn in 2023). Dug ditches in and around the fields are still active and aiding site drainage. Some portions

of the property are currently forested including the hill North of Bell Road and areas bordering Buxton Creek on the eastern edge of the property and the ditched tributary on the western portion. Wetland Reserve Program easements placed by a former landowner and held by the Natural Resource Conservation Service occur in and adjacent to portions of the property. NRCS-held easement areas A-D are depicted in **Figure 3-1** and are excluded from the Buxton Creek Mitigation Plan and conservation easement.

3.2 Soils

USDA Natural Resources Conservation Service (NRCS) soil mapping of the site is summarized in **Table 3-1** and **Figure 3-2** below. Poorly drained soils and/or soils with a predominately hydric rating category dominate the site. In particular, Canandaigua silt loam (Cd), Lamson very fine sandy loam (Lf), and Madalin silt loam (Ma) dominate the lower, flatter regions where elevation changes are minimal.

Table 3-1. Soil Series Mapped within the Mitigation Area

Series	Symbol	Acres	% of Area	Drainage Class	Hydrologic Soil Group
Canandaigua silt loam	Cd	38.69	15.49%	Poorly drained	C/D
Fonda mucky silt loam	Fn	11.1	4.44%	Very poorly drained	D
Lamson very fine sandy loam	Lf	21.31	8.53%	Poorly drained	A/D
Madalin silt loam, 0-3% slopes	Ma	63.24	25.32%	Moderately well drained	A/D
Minoa very fine sandy loam	Mn	18.46	7.39%	Somewhat poorly drained	B/D
Minoa fine sandy loam, moderately well drained variant, 0-6% slopes	MoB	13.94	5.58%	Poorly drained	C/D
Rhinebeck silt loam	RhA	10.52	4.21%	Somewhat poorly drained	C/D
Rhinebeck silt loam, 2-6% slopes	RhB	33.58	13.45%	Somewhat poorly drained	C/D
Sodus gravelly fine sandy loam, 3-8% slopes	SgB	19.11	7.65%	Well drained	C
Sodus gravelly fine sandy loam, 8-15% slopes	SgC	6.11	2.45%	Well drained	C
Sodus gravelly fine sandy loam, 15-25% slopes	SgD	13.37	5.35%	Well drained	C

A 4-foot-long and 11-foot-long open-faced clay auger was used to sample soils across the property, revealing clay layers sufficient for holding water on site in every test hole. Locations of soil test pits and the description of soil textures and depth to groundwater are detailed in **Figure 3-2** below.

Figure 3-1. NRCS Wetland Reserve Easements

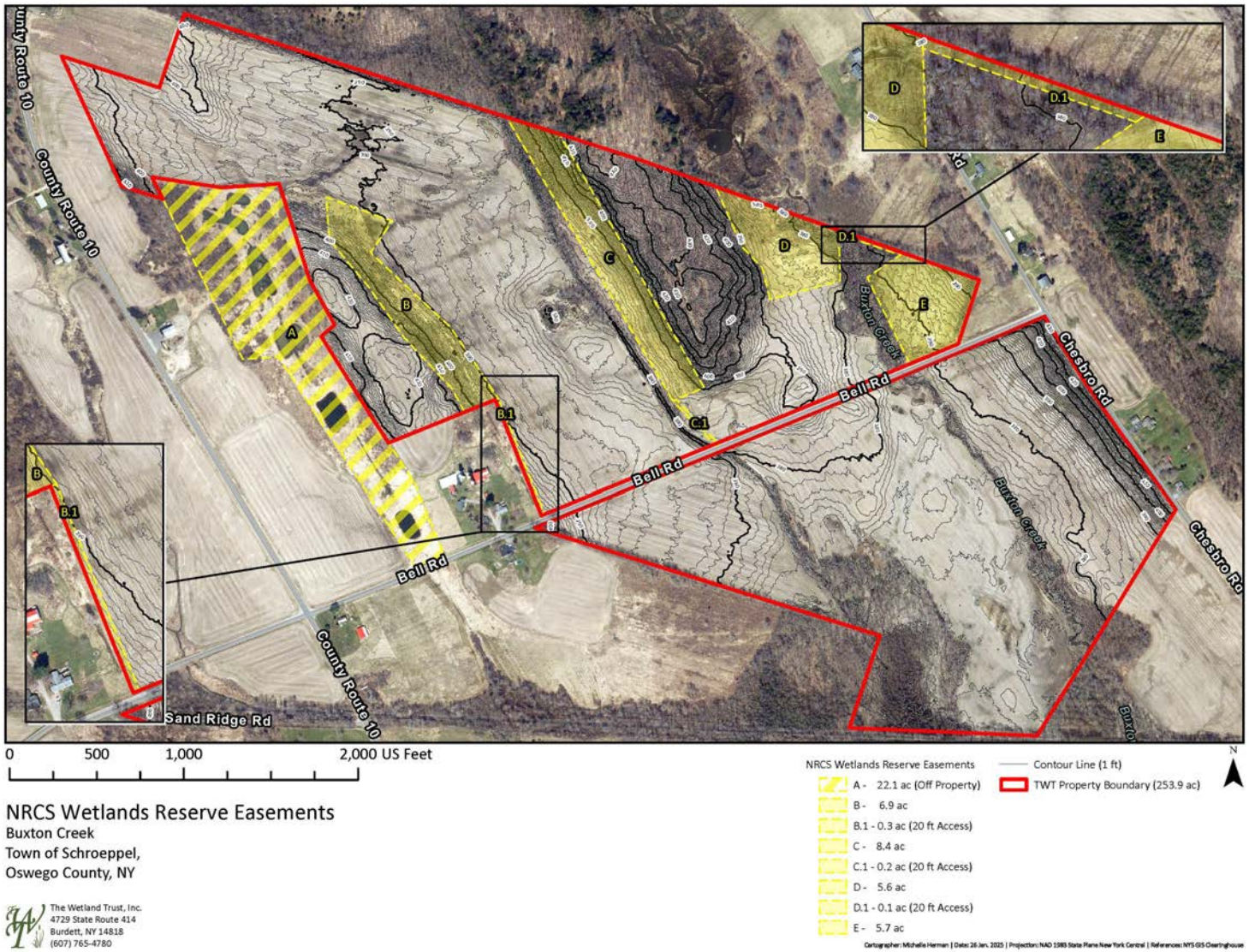
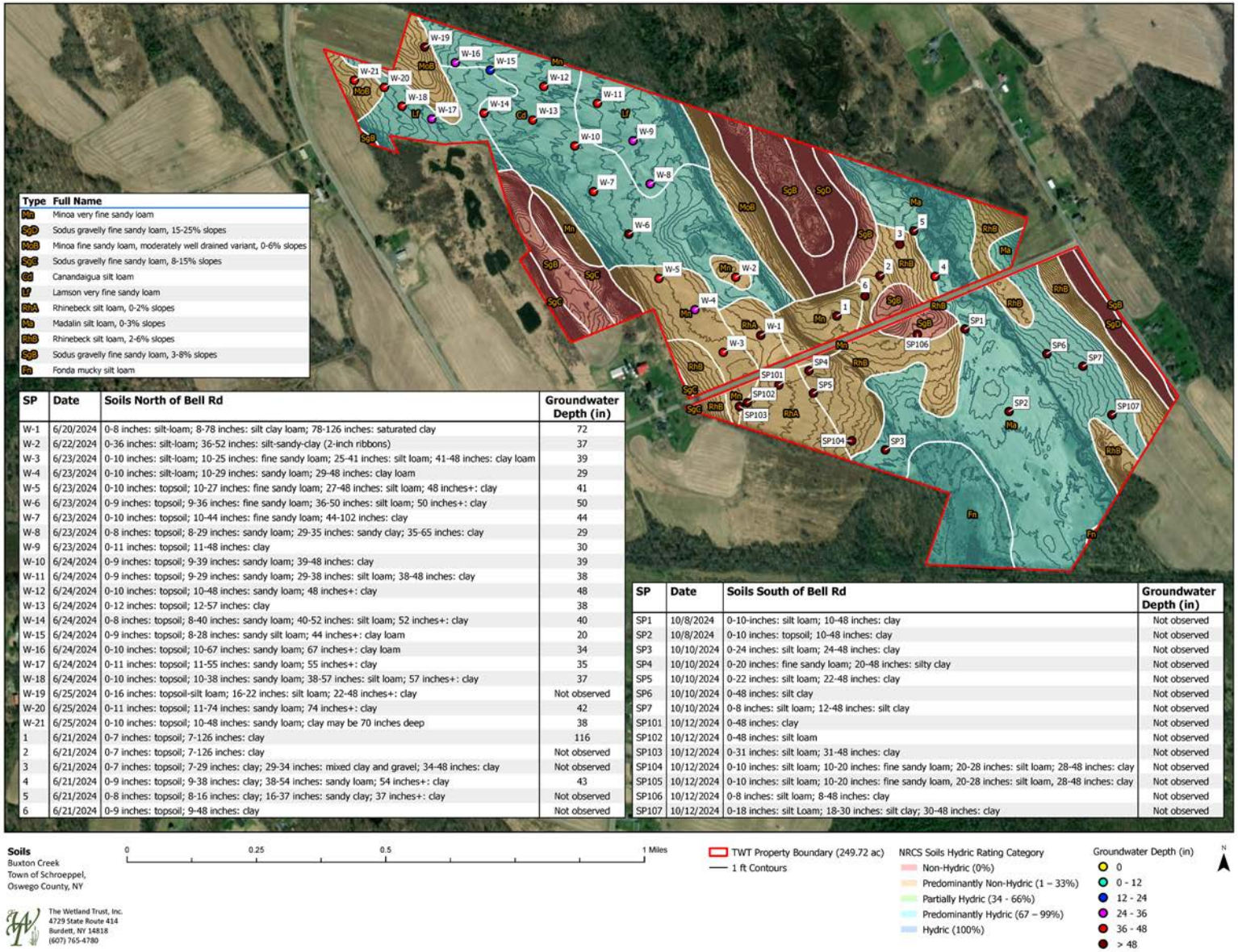


Figure 3-2. Buxton Creek Soils



Type	Full Name
Mn	Minoa very fine sandy loam
SgD	Sodus gravelly fine sandy loam, 15-25% slopes
MoB	Minoa fine sandy loam, moderately well drained variant, 0-6% slopes
SgB	Sodus gravelly fine sandy loam, 8-15% slopes
Cd	Canandaigua silt loam
Lf	Lamson very fine sandy loam
RhA	Rhinebeck silt loam, 0-2% slopes
Ma	Madalin silt loam, 0-3% slopes
RhB	Rhinebeck silt loam, 2-6% slopes
SgB	Sodus gravelly fine sandy loam, 3-8% slopes
Fn	Fonda mucky silt loam

SP	Date	Soils North of Bell Rd	Groundwater Depth (in)
W-1	6/20/2024	0-8 inches: silt-loam; 8-78 inches: silt clay loam; 78-126 inches: saturated clay	72
W-2	6/22/2024	0-36 inches: silt-loam; 36-52 inches: silt-sandy-clay (2-inch ribbons)	37
W-3	6/23/2024	0-10 inches: silt-loam; 10-25 inches: fine sandy loam; 25-41 inches: silt loam; 41-48 inches: clay loam	39
W-4	6/23/2024	0-10 inches: silt-loam; 10-29 inches: sandy loam; 29-48 inches: clay loam	29
W-5	6/23/2024	0-10 inches: topsoil; 10-27 inches: fine sandy loam; 27-48 inches: silt loam; 48 inches+: clay	41
W-6	6/23/2024	0-9 inches: topsoil; 9-36 inches: fine sandy loam; 36-50 inches: silt loam; 50 inches+: clay	50
W-7	6/23/2024	0-10 inches: topsoil; 10-44 inches: fine sandy loam; 44-102 inches: clay	44
W-8	6/23/2024	0-8 inches: topsoil; 8-29 inches: sandy loam; 29-35 inches: sandy clay; 35-65 inches: clay	29
W-9	6/23/2024	0-11 inches: topsoil; 11-48 inches: clay	30
W-10	6/24/2024	0-9 inches: topsoil; 9-39 inches: sandy loam; 39-48 inches: clay	39
W-11	6/24/2024	0-9 inches: topsoil; 9-29 inches: sandy loam; 29-38 inches: silt loam; 38-48 inches: clay	38
W-12	6/24/2024	0-10 inches: topsoil; 10-48 inches: sandy loam; 48 inches+: clay	48
W-13	6/24/2024	0-12 inches: topsoil; 12-57 inches: clay	38
W-14	6/24/2024	0-8 inches: topsoil; 8-40 inches: sandy loam; 40-52 inches: silt loam; 52 inches+: clay	40
W-15	6/24/2024	0-9 inches: topsoil; 8-28 inches: sandy silt loam; 44 inches+: clay loam	20
W-16	6/24/2024	0-10 inches: topsoil; 10-67 inches: sandy loam; 67 inches+: clay loam	34
W-17	6/24/2024	0-11 inches: topsoil; 11-55 inches: sandy loam; 55 inches+: clay	35
W-18	6/24/2024	0-10 inches: topsoil; 10-38 inches: sandy loam; 38-57 inches: silt loam; 57 inches+: clay	37
W-19	6/25/2024	0-16 inches: topsoil-silt loam; 16-22 inches: silt loam; 22-48 inches+: clay	Not observed
W-20	6/25/2024	0-11 inches: topsoil; 11-74 inches: sandy loam; 74 inches+: clay	42
W-21	6/25/2024	0-10 inches: topsoil; 10-48 inches: sandy loam; clay may be 70 inches deep	38
1	6/21/2024	0-7 inches: topsoil; 7-126 inches: clay	116
2	6/21/2024	0-7 inches: topsoil; 7-126 inches: clay	Not observed
3	6/21/2024	0-7 inches: topsoil; 7-29 inches: clay; 29-34 inches: mixed clay and gravel; 34-48 inches: clay	Not observed
4	6/21/2024	0-9 inches: topsoil; 9-38 inches: clay; 38-54 inches: sandy loam; 54 inches+: clay	43
5	6/21/2024	0-8 inches: topsoil; 8-16 inches: clay; 16-37 inches: sandy clay; 37 inches+: clay	Not observed
6	6/21/2024	0-9 inches: topsoil; 9-48 inches: clay	Not observed

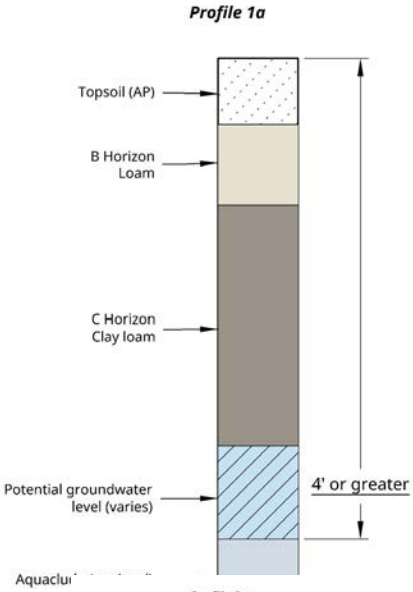
SP	Date	Soils South of Bell Rd	Groundwater Depth (in)
SP1	10/8/2024	0-10-inches: silt loam; 10-48 inches: clay	Not observed
SP2	10/8/2024	0-10 inches: topsoil; 10-48 inches: clay	Not observed
SP3	10/10/2024	0-24 inches: silt loam; 24-48 inches: clay	Not observed
SP4	10/10/2024	0-20 inches: fine sandy loam; 20-48 inches: silty clay	Not observed
SP5	10/10/2024	0-22 inches: silt loam; 22-48 inches: clay	Not observed
SP6	10/10/2024	0-48 inches: silt clay	Not observed
SP7	10/10/2024	0-8 inches: silt loam; 12-48 inches: silt clay	Not observed
SP101	10/12/2024	0-48 inches: clay	Not observed
SP102	10/12/2024	0-48 inches: silt loam	Not observed
SP103	10/12/2024	0-31 inches: silt loam; 31-48 inches: clay	Not observed
SP104	10/12/2024	0-10 inches: silt loam; 10-20 inches: fine sandy loam; 20-28 inches: silt loam; 28-48 inches: clay	Not observed
SP105	10/12/2024	0-10 inches: silt loam; 10-20 inches: fine sandy loam, 20-28 inches: silt loam, 28-48 inches: clay	Not observed
SP106	10/12/2024	0-8 inches: silt loam; 8-48 inches: clay	Not observed
SP107	10/12/2024	0-18 inches: silt Loam; 18-30 inches: silt clay; 30-48 inches: clay	Not observed

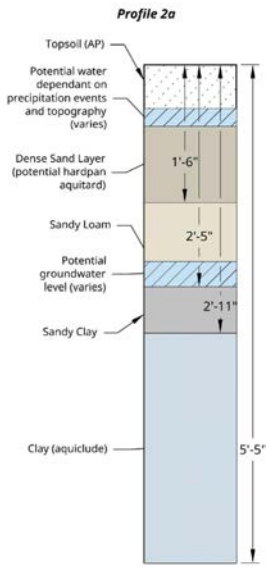
3.3 Wetlands and Hydrology

Hydrological characteristics at Buxton Creek were determined by TWT through wetland and aquatic resource delineations, aerial imagery interpretation, review of regulatory maps, wetland design field assessments which included a series of soil test pits, and interviews with previous property owners.

Both state and federal wetlands are mapped onsite (**Figure 3-3**). Existing wetlands, streams, and drainage features were delineated in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplement. Field visits for delineation concurrence by USACE and NYSDEC were conducted in August 2024 with final concurrence and pending as of this writing. All field data points were recorded with a centimeter-level accurate GNSS receiver and mapped in ArcGIS Pro. See **Figure 3-4** for mapped wetlands and drainage features and **Appendix C** for delineated features summary table and data sheets.

A series of soil test pits and site assessments indicate the hydrology of Buxton Creek is driven largely by shallow silt loam and sandy topsoil layers over clay and/or compacted sand clay layers near the surface. As shown in the auger data, clay is generally within one foot of the surface. Groundwater is present deep below the surface in almost all auger holes and sometimes needed time to seep into the hole for measurement. Groundwater layers flow generally north to south (with stream flow directions). Adjacent areas on the west side of each drainage tend to slope west to east with surface and groundwater flowing in this direction toward the ditches. On the east side of each drainage the slope is east to west with surface and subsurface flow the same. Areas where the confining layer is deeper than 4 feet, the groundwater can fluctuate within soil horizons more freely depending on permeability of those soil horizons. Precipitation and runoff have an influence on these water levels as well.





Conditions at the site are conducive to constructing wetlands at a large scale and point to a high probability of successful construction and restored wetlands. To further support planning efforts, hydrology at the site will continue to be monitored until work begins. Staff gauges, groundwater monitoring wells, and a rain gauge will be installed at the site in March or April 2025.

Figure 3-3. State and Federal Mapped Wetlands

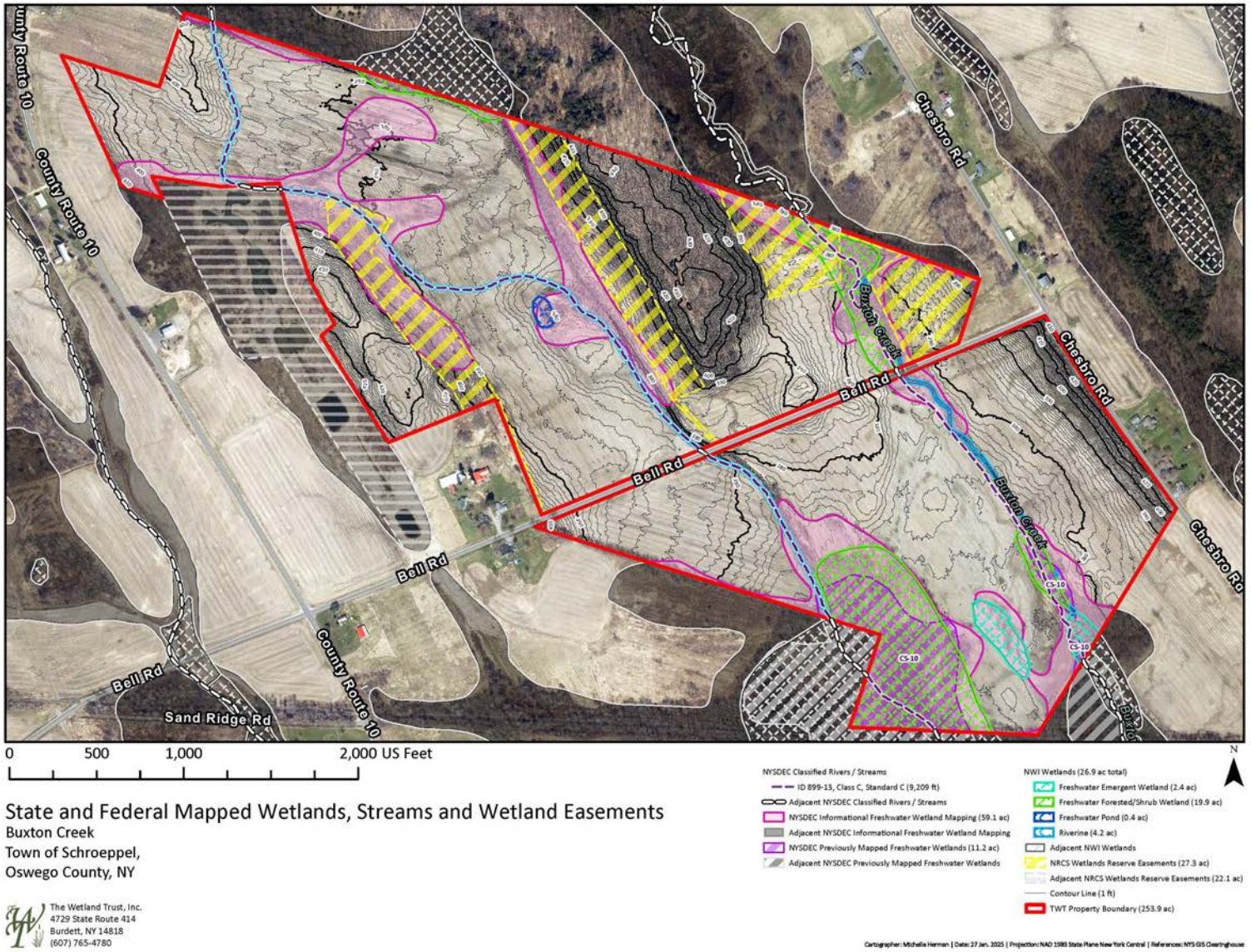
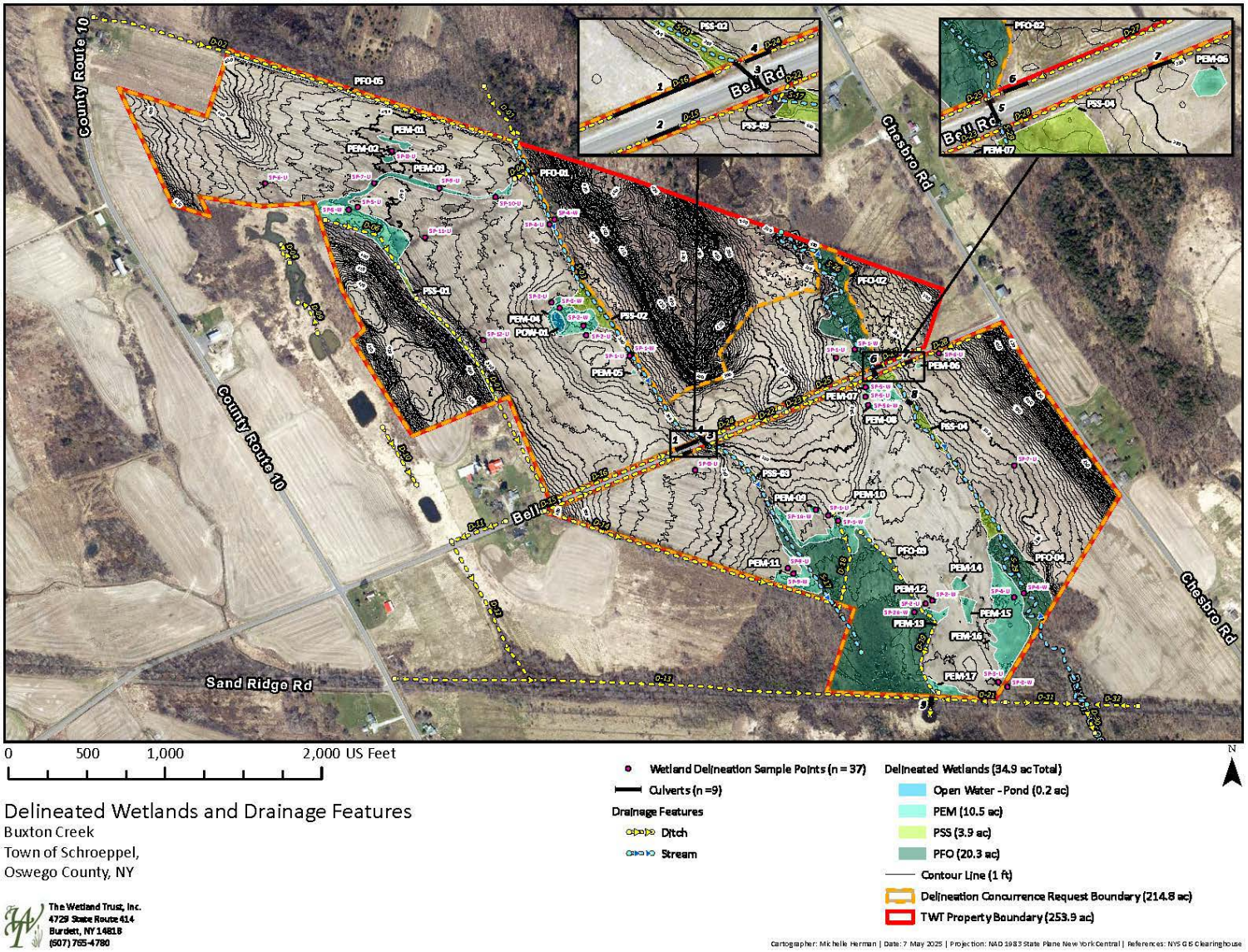


Figure 3-4. Delineated Wetlands and Drainage Features



Staff Gauges

Staff gauges will be installed at Buxton Creek for the purpose of measuring water levels in the streams, ditches, and ponds, providing critical data to monitor surface water dynamics and its relationship to groundwater monitoring well data. A total of 11 staff gauges will be strategically installed based on hydrology, field observations, contour maps, and wetland and stream design plans. Placement will ensure easy accessibility and unobstructed views to accommodate both drone and physical observations. Approximate elevations derived from GIS data will be field verified during installation using survey grade GPS. As detailed in **Table 3-2** below and **Figure 3-5**, staff gauges 1-6 will be placed in the western portion of the site and gauges 7-11 placed in the eastern portion.

Table 3-2. Staff Gauge Locations

Gauge Number	Elevation (ft)	Latitude	Longitude	Description
1	398.88	43.29182563	-76.24167014	West Creek entry point supplying water to the west side of North Buxton property.
2	383.26	43.29012501	-76.23477475	Midpoint to assist in stream and wetland design planning.
3	380.13	43.28716942	-76.2338844	Middle of a made pond near stream drainage channel to east
4	377.54	43.28510858	-76.2304973	Culvert under Bell Road at West Creek
5	377.47	43.28445325	-76.22926585	Middle of West Creek drainage south of Bell Road.
6	371.11	43.28059967	-76.22488699	Culvert at an old railroad grade, frequently impacted by beaver activity.
7	374.09	43.28725592	-76.22718194	Near the Buxton Creek to guide stream design considerations.
8	373.66	43.28635197	-76.2263319	Buxton Creek at Bell road culvert .
9	375.63	43.28521391	-76.22536536	Post-stream construction location within the new stream design
10	372.44	43.28456285	-76.22429558	Middle of Buxton Creek drainage area.
11	372.65	43.28324895	-76.22322829	Connection point where the stream design ties into existing Buxton creek.

Monitoring Wells

Up to 16 groundwater monitoring wells using Onset HOBO water level dataloggers will be strategically placed across the site to capture critical groundwater data every four hours, with locations informed by hydrology and drainage patterns, soil delineations, and observed site characteristics. Elevations will be verified during installation to ensure accuracy, and placement adjustments may be made based on field findings. Any changes will be documented in the as-built report. Depending on the depth and presence of the restricted layer, a shallow (approximately 15-20 inches deep) or deeper well (approximately 4-6 feet deep) will be used. See **Table 3-4** and **Figure 3-5** for details.

Table 3-3. Monitoring Well Location

Well #	Elevation (ft)	Latitude	Longitude	Location	Description
1	397.90	43.29017729	-76.24114043	Northwest Field	Near planned wetland 25; highest elevation point.
2	389.70	43.29043652	-76.23819699	Northwest Field	Near planned wetland 12; located on a sandy aquiclude.
3	387.73	43.28819825	-76.23685137	Northwest Field	Between planned wetland 7 and 9
4	382.25	43.28530206	-76.2318681	Northwest Field	Near planned wetland 2; lower elevation point, adjacent to stream drainage.

5	388.27	43.2862937	-76.22901951	Northeast Field	Between wetlands R-02 and R-06; determines groundwater presence at 16 feet above creek.
6	379.77	43.28414694	-76.23114631	Southwest Field	Near wetland C-07; monitors sandy patch influence on water retention.
7	380.27	43.28364753	-76.22981336	Southcentral Field	Near planned wetland C-34
8	374.11	43.28308109	-76.22875915	Southcentral Field	Between wetland C-15 and C-19
9	381.02	43.28395612	-76.22794334	Southeast Field	In wetlands C-1

Rain Gauge

One HOBO Rain Gauge Data Logger (RG3) is installed at the site to measure precipitation on-site (coordinates: 43.295656, -76.278014) and has been recording data since April 28, 2025. This data will support the interpretation of hydrologic responses observed in monitoring wells and staff gauges. This device will not be used in peak winter as it cannot measure snow, only rainfall.

3.4 Existing Wildlife

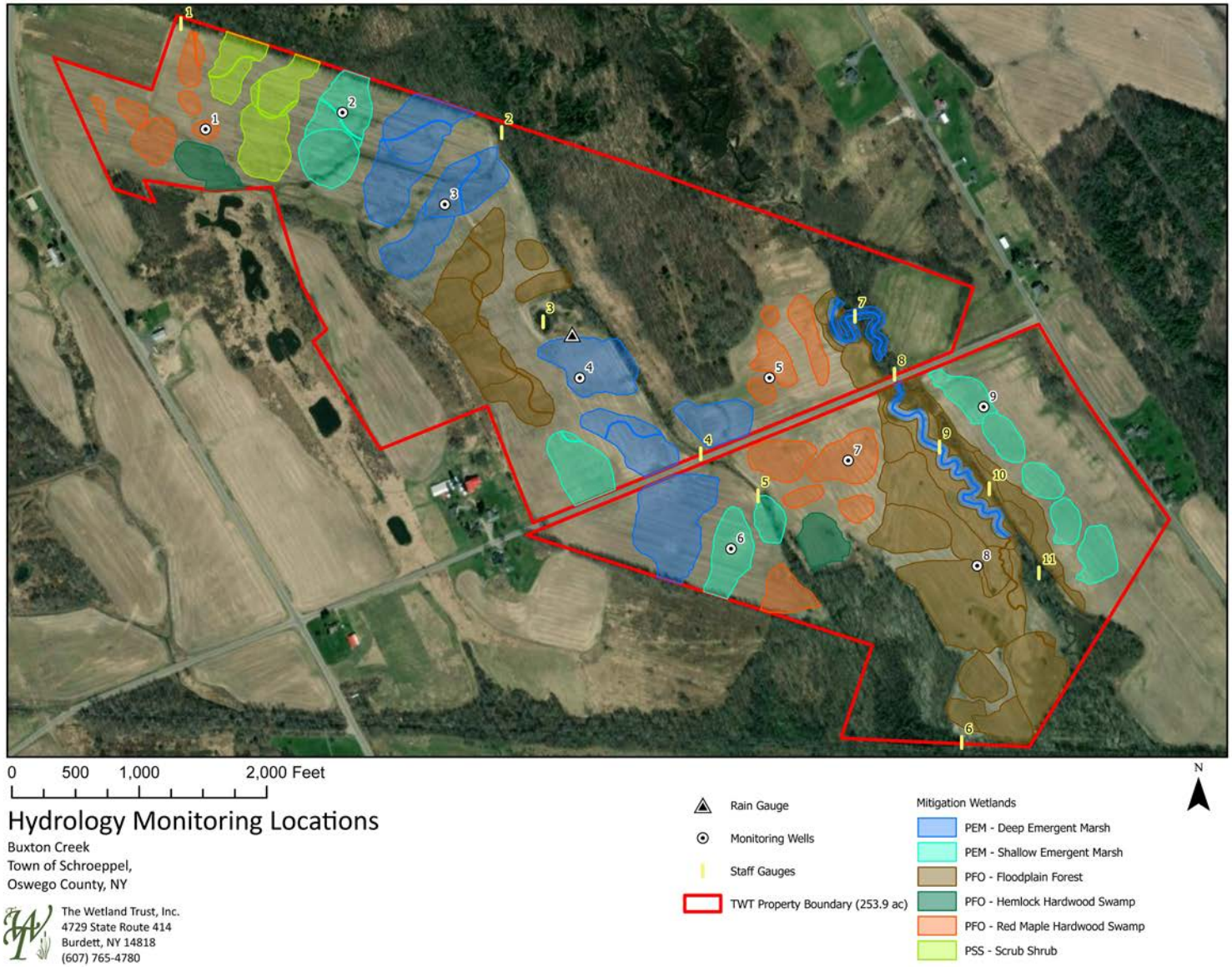
Various wildlife, including amphibian, bird, and mammal species, have been recorded at the Buxton Creek mitigation site, either through visual or auditory observations. Amphibians were identified by sight using egg mass, juvenile, or adult presence and by sound if mating calls were discernible. Two main species were noted at this site, including the gray treefrog (*Dryophytes versicolor*) and American toad (*Anaxyrus americanus*). Both species have a state rank of S5 and a global rank of G5, indicating that they are secure statewide and globally. Several other amphibian species were documented in the surrounding area and are likely present at the Buxton Creek site as well, including the northern green frog (*Lithobates clamitans melanota*), northern leopard frog (*Lithobates pipiens*), and wood frog (*Lithobates sylvaticus*), all of which are secure both statewide and globally.

Numerous bird species were observed at the Buxton Creek mitigation site using both visual and auditory identification. Several species of note include the Baltimore oriole (*Icterus galbula*), willow flycatcher (*Empidonax traillii*), gray catbird (*Dumetella carolinensis*), and killdeer (*Charadrius vociferus*), all of which are secure both statewide and globally. Many more birds were found in the surrounding area, including the bald eagle (*Haliaeetus leucocephalus*), which is a threatened species in New York State, and the osprey (*Pandion haliaetus*), a species of special concern in New York State, among others. Various mammal species were also documented at the Buxton Creek site and immediate area either directly or indirectly (i.e., scat, footprints, etc.), including the white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), North American beaver (*Castor canadensis*), raccoon (*Procyon lotor*), and eastern cottontail (*Sylvilagus floridanus*). **Appendix D**.

3.4.1 Federally Listed Species and Habitat Consideration

Consultation has been initiated with the U.S. Fish and Wildlife Service (USFWS) in accordance with Section 7 of the Endangered Species Act to ensure that the proposed stream/wetland mitigation activities will not adversely affect federally listed species or their critical habitats.

Figure 3-5. Buxton Creek Hydrology Monitoring Locations



Coordination is ongoing, and any conservation measures or recommendations provided by USFWS will be incorporated into the project design and implementation, as appropriate. The official species list generated through the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) system is included in **Appendix D**.

3.5 Existing Vegetation

The Buxton Creek site features a mix of agricultural, upland, and wetland ecosystems. Most of the site is currently cultivated as soybean (*Glycine max*) fields, resulting in limited vegetative diversity within the agricultural zone. Surrounding the fields are a mix of uplands and delineated wetlands that support a combination of native and invasive plant species. Native vegetation, including swamp milkweed (*Asclepias incarnata*), soft rush (*Juncus effusus*), and blue vervain (*Verbena hastata*), contribute to vital habitat and ecological functions. A complete list of species observed at the Buxton Creek site can be found in **Appendix D.**

3.6 Invasive Species

Key invasive plants include purple loosestrife (*Lythrum salicaria*), reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), and cattail (*Typha* spp.). These species are highly competitive, forming dense monocultures that outcompete native vegetation, diminish biodiversity, and disrupt wetland functionality. These species cover approximately 7 acres across the site but are largely outside of the wetland work areas. Refer to the Invasive Species Management Plan in **Appendix E** for baseline maps of existing invasive species.

3.7 Cultural and Historic Considerations

In accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), initial consultation was initiated with the New York State Historic Preservation Office (NY SHPO) in August 2024 to assess the potential for the proposed mitigation site to affect historic properties or cultural resources. An August 13, 2024 letter from NY SHPO indicated that no historic properties or cultural resources would be affected by this project. Further tribal consultation with Onondaga Nation required a Phase 1A Report of the site to show why no field work was proposed. A Phase 1A Report was submitted on [still in progress], 2025 (**Appendix F)**.

4. Wetland Credit Accounting

The USACE and NYSDEC will determine credit generation based on wetland acres that meet or exceed performance standards and proposed credit ratios (**Table 4-1**). One-to-one ratios are based on re-establishment (or creation) of the specific cover types targeted to replace lost functions. 3.5-to-one ratios are based on rehabilitation of existing wetlands and were informed by numerous discussions with regulatory agencies. The final credit generation will be adjusted based on monitoring results and meeting the performance standards of the mitigation site.

Figure 4-1. USACE Wetland Credit Generation and NYSDEC Mitigation Acreage						
Wetland type Cowardin	**Cover type** Edinger	**Mitigation Type** NYSDEC	**Acres**	**Mitigation type** USACE	**USACE Ratio** (Acre:Credit)	**Credits**
PEM	**Shallow emergent marsh**	Restoration	11.2	Re-establishment	1:1	11.2
		Enhancement	0.5	Rehabilitation	3.5:1	0.14
	Deep emergent marsh	Restoration	18.7	Re-establishment	1:1	18.7
		Enhancement	1.8	Rehabilitation	3.5:1	0.51
PFO	**Floodplain forest**	Restoration	31.7	Re-establishment	1:1	31.7
		Enhancement	24.6	Rehabilitation	3.5:1	7.03
	Hemlock hardwood swamp	Restoration	2.9	Re-establishment	1:1	2.9
		Enhancement	0.1	Rehabilitation	3.5:1	0.03
	Red maple- hardwood swamp	Restoration	24.3	Re-establishment	1:1	24.3
		Enhancement	0.5	Rehabilitation	3.5:1	0.14
		Total	**116***			**96.7**
* total amount of NYSDEC mitigation acres.						

Open water areas (deep water aquatic habitats and vegetated shallows) greater than 0.1 contiguous acre will only be credited where they equal 10% or less of the total wetland creation and re-establishment areas or so long as they are part of a well-integrated complex of open water and emergent vegetation. Deepwater aquatic habitat is defined as any open water area that is either a) permanently inundated at mean annual water depths >6.6 ft, lacks soil, and/or is either unvegetated or supports only floating or submersed macrophytes, or b) permanently inundated areas ≤6.6 ft in depth that do not support rooted-emergent or woody plant species. Areas ≤6.6 ft mean annual depth that support only submergent aquatic plants are vegetated shallows, not wetlands. The 2 acres of open water (POW) that will be impacted will be accommodated by POW areas within the wetlands where they are not counted toward the credit total.

5. Wetland Mitigation Work Plan

The wetland mitigation work plan at Buxton Creek will focus on re-establishing/restoring naturally appearing and functioning wetlands as part of an integrated stream/wetland complex. Work methods include removing or disabling existing drainage tiles, disabling ditches, restoring shallow basins and the natural rims of drained and filled wetlands, and restoring microtopography as described throughout this section. These methods will ensure the target hydrology is met, supporting a diverse community of hydrophytic vegetation. The treatment of existing invasive vegetation will begin prior to construction to minimize the extent of spread to work areas. Streams and wetlands will be constructed concurrently, and seeding/planting will be completed after all grading is complete. Existing degraded wetlands onsite will be rehabilitated through a combination of invasive species management, native vegetation management and planting, and minor hydrology alterations (i.e. repairing tractor ruts/installing small vernal pools).

Wetlands were designed at the site in June and July 2024 by TWT staff. Field design forms were filled out for each wetland polygon **(Appendix F)**. Determination of the types of wetlands to be re-established for each area within the Buxton Creek Site is based on the cover types outlined in Ecological Communities of New York State (Edinger, 2014) and is guided by the number of acres of each wetland type necessary to meet mitigation requirements for the Micron impacts.

Approximately 11.2 acres of shallow emergent marsh, 18.7 acres of deep emergent marsh, 31.7 acres of floodplain forest, 24.3 acres of red maple hardwood swamp, and 2.9 acres of hemlock hardwood swamp will be re-established with 6.5 acres of incidental rehabilitation of these cover types and 21 additional acres of rehabilitation of existing degraded wetlands **(Figure 5-3)**. The following characteristics guide the locations of each type of wetland to be re-established.

Floodplain Forest

- Low terraces of river floodplains, and the floodplains of stream restoration areas
- Low areas of inundation in spring and irregular inundation of high areas
- Mineral soils

Hemlock-Hardwood Swamp

- Mineral soils and deep muck in depressions
- Receives groundwater discharge

Red Maple-Hardwood Swamp

- Poorly drained depressions
- Usually inorganic soils with peat, if present, that is less than 20 cm deep
- Occasionally on muck or shallow peat, that is typically acidic to circumneutral

Deep Emergent Marsh

- Often placed so they are visible to the public
- Prioritized for building within grassland areas
- Mineral soils or fine-grained organic soils
- Substrate is flooded by waters that are not subject to violent wave action

Shallow Emergent Marsh

- Often placed so they are visible to the public
- Prioritized for building within grasslands
- Occurs on mineral soil or deep muck soils (rather than true peat)
- Permanently saturated and seasonally flooded

Equipment operators will include local construction and farming personnel, including those currently farming the sites, and TWT staff. The on-site experience of farming and local knowledge of the operators will maximize productivity and work quality. Prior to construction, work areas will be mowed and/or crops harvested to increase visibility. One or more parking/staging areas for heavy equipment and vehicles will be designated along Bell Road as necessary, avoiding any

identified wetlands or aquatic resources. TWT staff will be onsite every day to direct and oversee construction. No tree removal is planned. Should any tree removal be necessary, it will only occur after November 1st.

5.1 Invasive Vegetation Control

Prior to the initiation of earthwork, invasive vegetative species will be controlled following strategies outlined in the Invasive Species Monitoring Plan (ISMP, **Appendix E**). This Buxton Creek ISMP details the target species, timing, and control methods. Methods may include mechanical removal, such as hand-pulling or mowing and chemical treatments using targeted herbicides. These actions will occur during the appropriate season of the target species to maximize effectiveness. Invasive species control will avoid soil disturbance, reduce seed dispersal, and limit impacts on local resources. All treated areas will be monitored to ensure the effectiveness of the control measures, and follow-up treatments will be applied as necessary.

5.2 Grading Plan

Basin and berm construction

A shallow basin will be shaped for each designed wetland. The basins will measure 10 feet in diameter to over 200-feet in diameter based on location characteristics and targeted cover type. The basin is dug so that it is deepest in the center in relation to the low edge of the marked perimeter. Basins will range in depth from 1-inch to 36-inches, based on targeted cover type. Refer to **Figures 5-4 and 5-5** for plan view details. Small, earthen berms around the lower two-thirds of the wetland basin will be constructed from 1.0 to 2.0 feet high at a minimum width of 3-feet wide and gradual 5 percent slopes. Core trenches filled with compacted clay layers will be constructed under the berms to disable the buried drainage structures. See **Figures 5-1 and 5-2** for a typical section and plan view.

An excavator and dozer will be used to shape gradual slopes and bays along the inside edge of the constructed wetland for a natural look and function. Elevations are verified during construction using a laser level. Topsoil will be temporarily stored on site and spread in and around the finished wetland basin. Spoil material removed is shaped with gradual slopes so that it appears like natural hummock/hollow and ridges. Operators will aim to create wetlands on top of clay texture spoil material by leveling areas of spread soil and creating shallow basins in the soil.

Figure 5-1. Restored Wetland Section View

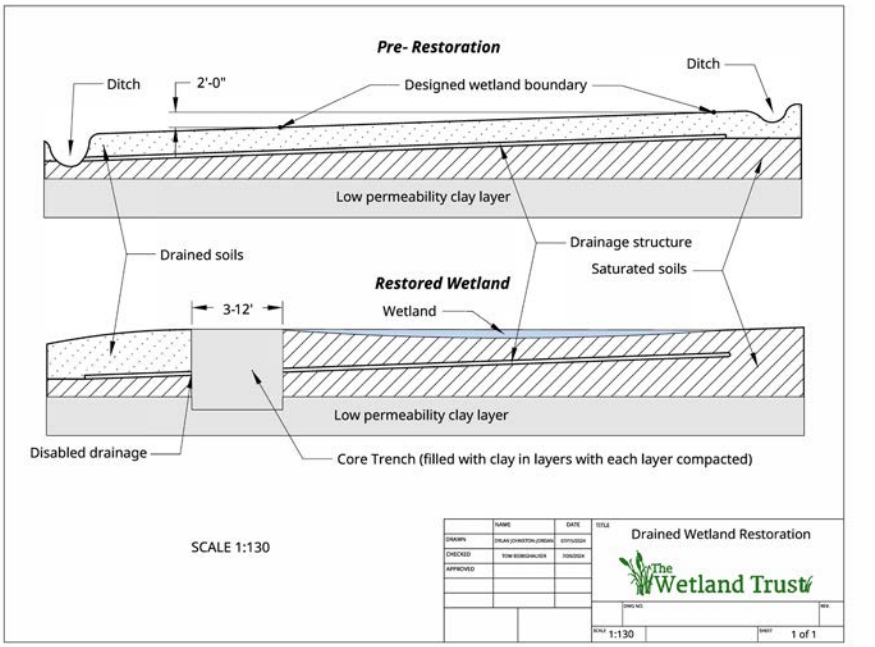


Figure 5-2. Restored Wetland Plan View

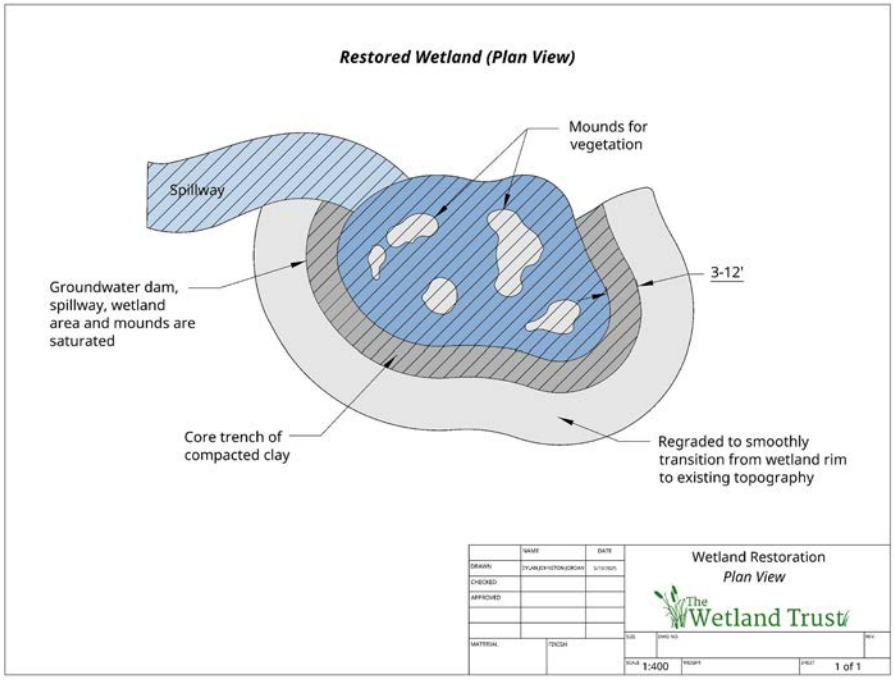


Figure 5-3. Buxton Creek Site Plan

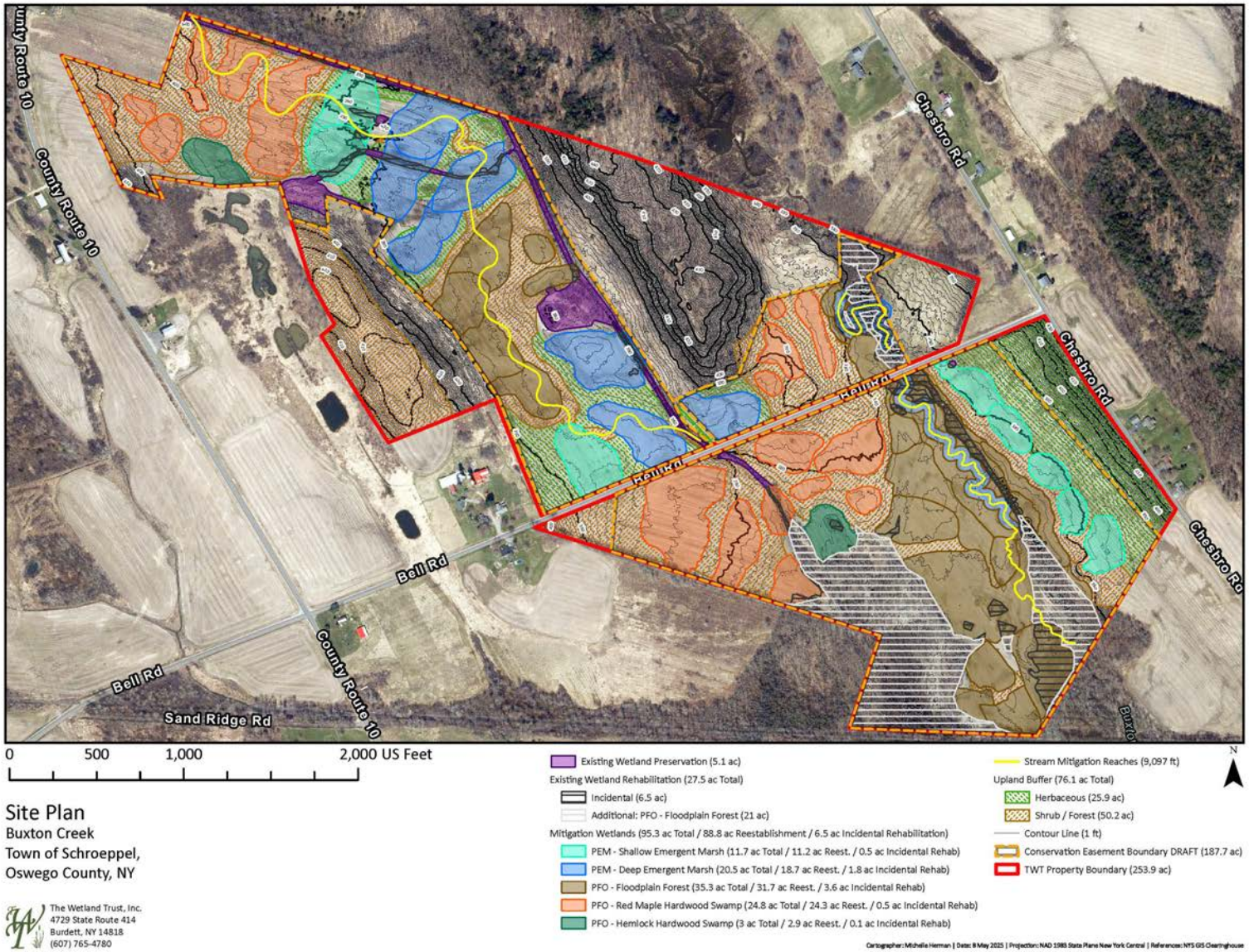
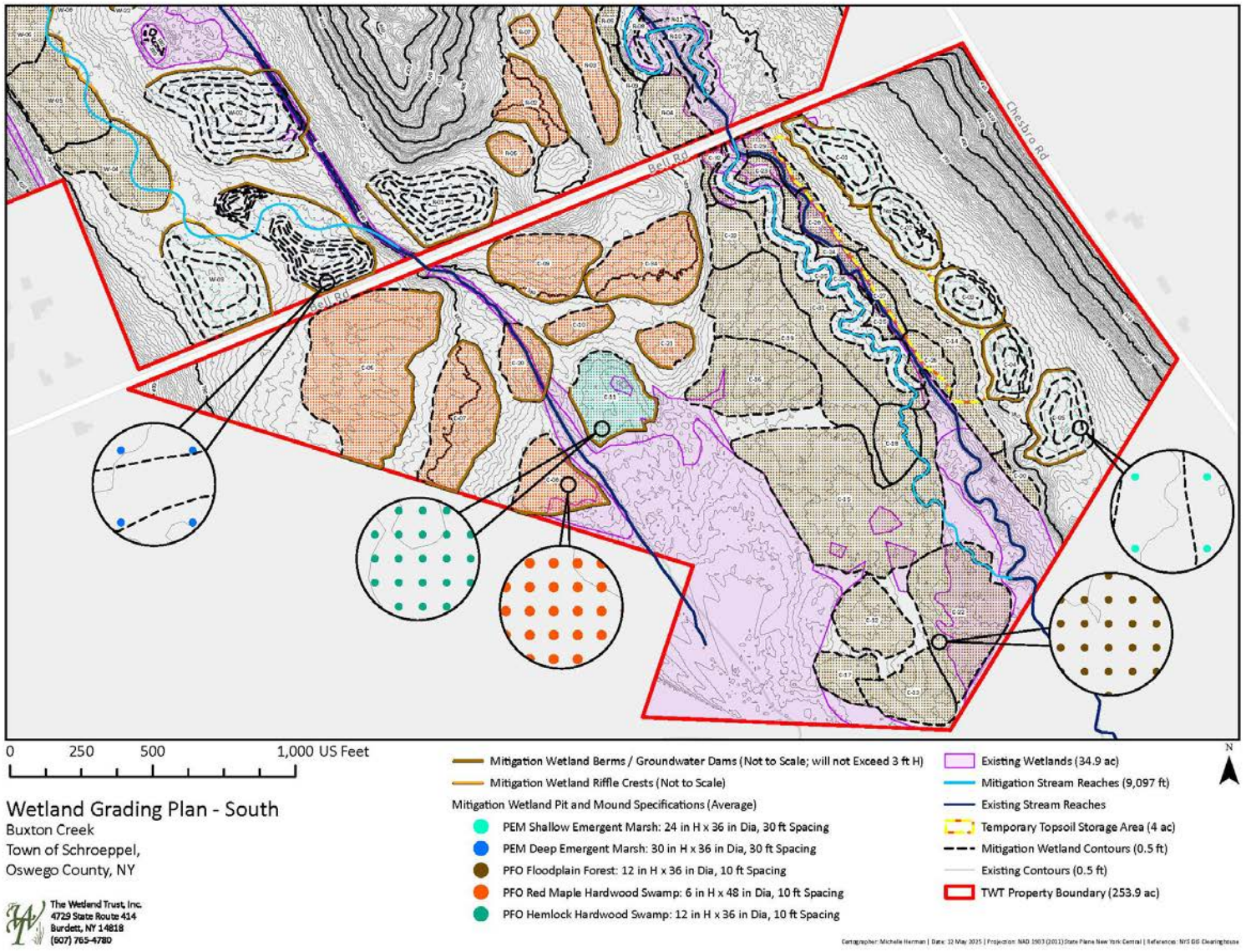


Figure 5-4. Wetland Grading Plan- North

Figure 5-5. Wetland Grading Plan- South



Microtopography restoration

Pit and mound microtopography will be created within each wetland basin, with average specifications depending on the desired wetland type (**Table 5-1**). Emergent basins will generally have the deepest pits, i.e. maximum water depth (approximately 36 inches), and higher and larger mounds (24-30 inches high and 36 inches in diameter) that are spaced farther apart (30 feet) relative to all other wetland types. The remaining PSS and PFO wetland types will have 10-foot-spaced mounds ranging from 4-12 inches high and 12-48 inches in diameter set within 1-6 inches of water. The soil in these features will not be compacted so it can be expected to settle by 50-percent. Typical cross sections for emergent, scrub-shrub, and forested cover types are depicted in **Figures 5-6 to 5-8**.

Table 5-1. Buxton Creek Grading for Wetland Types

Wetland Type	Maximum wetland basin depth (in)	Average individual mound height (in)*	Average mound diameter (in)	Mound Spacing (ft)	Mound Density/acre
PEM – Shallow Emergent Marsh	24	24	36	30	80
PEM – Deep Emergent Marsh	36	30	36	30	40
PFO – Floodplain Forest	4	12	36	10	200
PFO – Hemlock Hardwood Swamp	1	12	36	10	400
PFO – Red Maple Hardwood Swamp	1	6	48	10	200
PSS – Scrub-shrub	6	4	12	10	400
*soil is kept uncompacted and will settle by up to 50%					

Figure 5-6. Restored Emergent Wetland

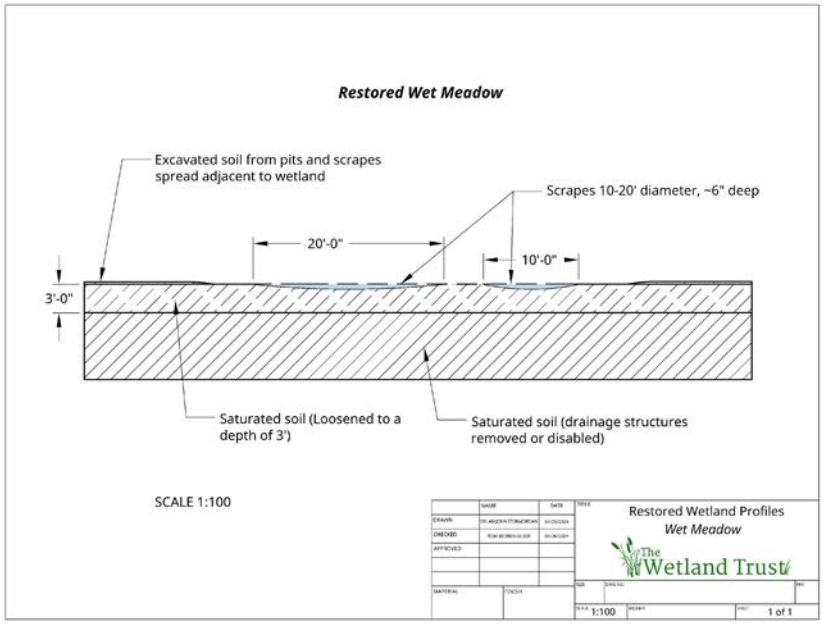


Figure 5-7. Restored Scrub-Shrub Wetland

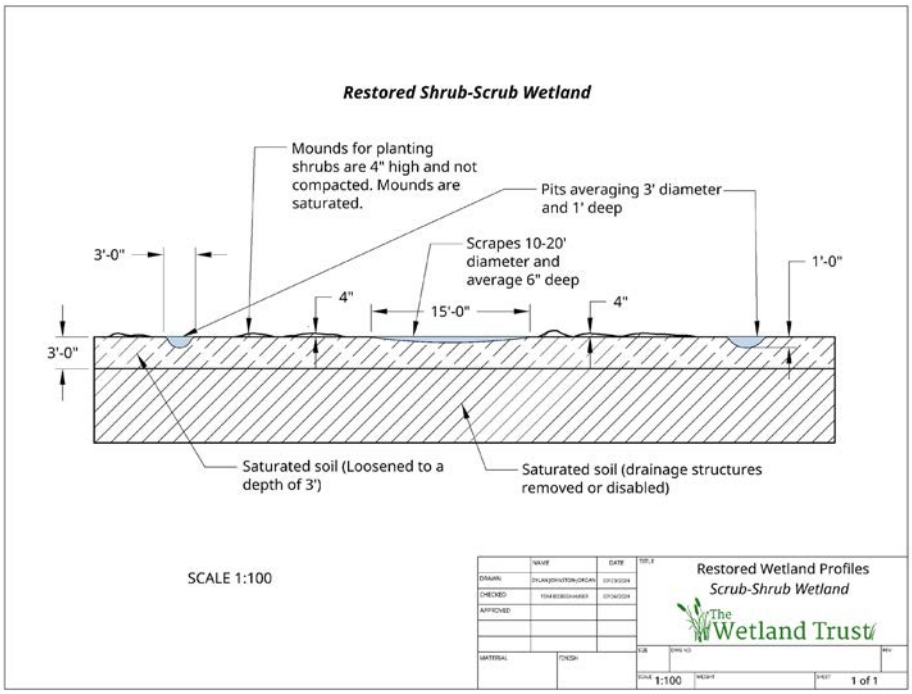
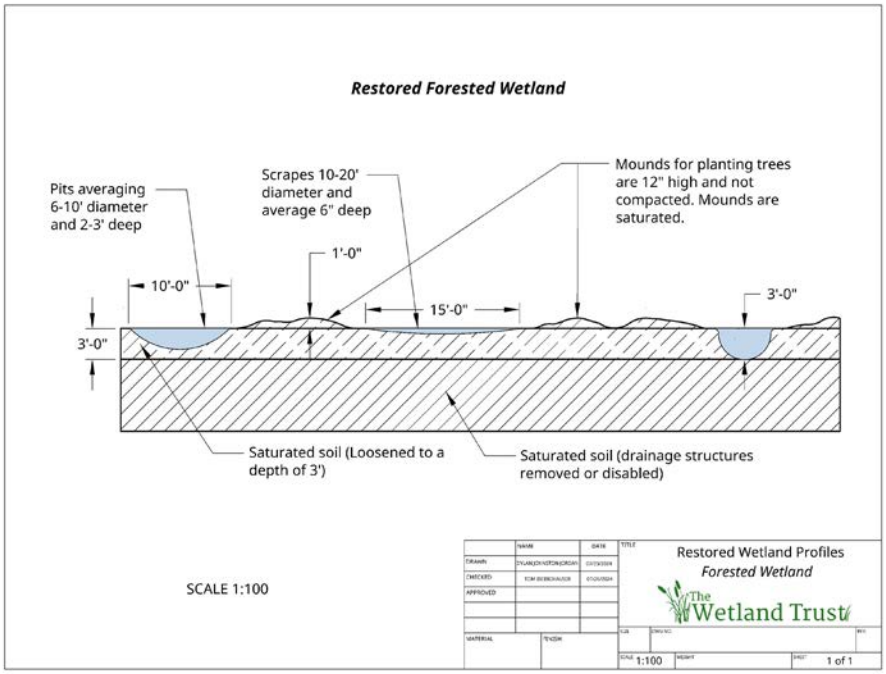


Figure 5-8. Restored Forested Wetland



5.3 Buffer Establishment

Upland buffers will be established surrounding all re-established, restored, or rehabilitated wetland areas to enhance habitat quality, protect water quality, and improve ecological function. Where buffers surround re-established palustrine emergent (PEM) wetlands, they will be planted with native herbaceous upland species to maintain open habitat structure and provide transitional zones that support pollinators and other wildlife. In areas adjacent to re-established palustrine scrub-shrub (PSS), palustrine forested (PFO) wetlands, or restored stream channels, upland buffers will be planted with native shrub and tree species to create structurally diverse, forested buffer zones. These plantings will promote shading, nutrient uptake, and habitat connectivity.

5.4 Planting Plan

The desired wetland plant community will be established through broadcasting high-quality, native seeds and planting trees and shrubs as per the planting plan in **Table 5-2a-f** below. The objective is to re-establish and rehabilitate high-quality emergent, shrub, and forested wetlands of select communities to replace the lost functions at the Micron Site.

Species proposed are based on many factors including commercial availability, typical species present in similar/local plant communities, species present at the impact site and Mitigation site, species establishment considerations (e.g. rhizomatous), etc. The species listed are not intended to be exclusive and may be supplemented or changed with ecologically similar species.

Spacing is a general recommendation and will be random and not grid like. Site conditions and topographic features will be utilized in plant placements, such as black willow (*Salix nigra*) along riparian features. TWT staff will coordinate and provide guidance to the planting crew prior to the start of work and will be on-site during operations. Pre-staking of planting locations, used to facilitate instruction to planting staff, will be completed as necessary.

The site will also be seeded and planted to increase the likelihood of successfully establishing target species/quantities and to minimize the opportunity for invasive species to become established. Seeding shown are targeted to supplement plantings and will be further customized with distributor based on site factors and seed/plant material availability. The distributor has confirmed that all mixes can be customized as necessary.

Table 5-2a. PEM- Shallow Emergent Marsh Planting List

Common Name	Scientific Name	Wetland Indicator	Coefficient of Conservatism (CoC)	Planting Rate
Swamp Milkweed	*Asclepias incarnata*	OBL	6	15-20 pounds/acre
Longhair Sedge	*Carex comosa*	OBL	5	
Fringed Sedge	*Carex crinita*	OBL	5	

Bottlebrush Sedge	*Carex hystericina*	OBL	4	
Shallow Sedge	*Carex lurida*	OBL	3	
Pointed Broom Sedge	*Carex scoparia*	FACW	2	
Upright Sedge	*Carex stricta*	OBL	6	
Hairy-fruited sedge	*Carex trichocarpa*	OBL	5	
Fox Sedge	*Carex vulpinoidea*	FACW	3	
White Turtlehead	*Chelone glabra*	OBL	7	
Swamp Loosestrife	*Decodon verticillatus*	OBL	8	
Three-way Sedge	*Dulichium arundinaceum*	OBL	5	
Common Spikerush	*Eleocharis palustris*	OBL	4	
Riverbank Wildrye	*Elymus riparius*	FACW	5	
Virginia Wildrye	*Elymus virginicus*	FACW	4	
Joe-Pye Weed	*Eupatorium fistulosum*	OBL	6	
Boneset	*Eupatorium perfoliatum*	FACW	4	
Spotted Touch-me-not	*Impatiens capensis*	FACW	2	
Pale Touch-me-not	*Impatiens pallida*	FACW	3	
Northern Blue Flag	*Iris versicolor*	OBL	7	
Canada Rush	*Juncus canadensis*	OBL	5	
Soft Rush	*Juncus effusus*	OBL	3	
Cardinal Flower	*Lobelia cardinalis*	FACW	7	
Great Blue Lobelia	*Lobelia siphilitica*	FACW	6	
Square-stemmed Monkey Flower	*Mimulus ringens*	OBL	5	
Sensitive Fern	*Onoclea sensibilis*	FACW	2	
Lizard's Tail	*Saururus cernuus*	OBL	7	
Purple-Stemmed Aster	*Symphyotrichum puniceum*	OBL	4	
Marsh Fern	*Thelypteris palustris*	FACW	4	
Blue Vervain	*Verbena hastata*	FACW	3	

Table 5-2b. Deep Emergent Marsh

Common Name	Scientific Name	Wetland Indicator	CoC	Planting Rate
Gray's Sedge	*Carex grayi*	FACW	5	15-20 pounds/acre
Cartex lacustris	*Carex lacustris*	OBL	5	
Royal Fern	*Osmunda regalis*	OBL	7	

Green Bulrush	*Scirpus atrovirens*	FACW	4	
Woolgrass	*Scirpus cyperinus*	FACW	3	
River Bulrush	*Scirpus fluviatilis*	OBL	6	
Water Parsnip	*Sium suave*	OBL	5	
Bur-reed	*Sparganium americanum*	OBL	5	

Table 5-2c. Scrub Shrub

Common Name	Scientific Name	Wetland Indicator	CoC	Planting/Spacing Rate
Smooth alder	*Alnus serrulata*	OBL	7	400/acre Shrub clusters Trees 10-25 feet apart
Coastal shadbush	*Amelanchier canadensis*	FAC	7	
Chokeberry	*Aronia melanocarpa*	FACW	6	
Purple chokeberry	*Aronia prunifolia*	FACW	7	
Buttonbush	*Cephalanthus occidentalis*	OBL	8	
Silky dogwood	*Cornus amomum*	FACW	5	
Gray dogwood	*Cornus racemosa*	FAC	2	
Red osier dogwood	*Cornus sericea*	FACW	5	
Common winterberry	*Ilex verticillata*	FACW	7	
Northern spicebush	*Lindera benzoin*	FACW	6	
Ninebark	*Physocarpus opulifolius*	FACW	5	
Swamp rose	*Rosa palustris*	FACW	9	
Bebbs willow	*Salix bebbiana*	FACW	3	
Pussy willow	*Salix discolor*	FACW	4	
Silky willow	*Salix sericea*	OBL	6	
Common elderberry	*Sambucus canadensis*	FACW	3	
Meadow-sweet	*Spiraea alba*	FACW	5	
High bush blueberry	*Vaccinium corymbosum*	FACW	6	
Northern wild raisin	*Viburnum cassinoides*	FACW	7	
Arrow-wood	*Viburnum dentatum*	FAC	4	
Nannyberry	*Viburnum Lentago*	FAC	4	
Highbush cranberry	*Viburnum opulus*	FACW	3	

Table 5-2d. PFO- Floodplain Forest				
Common Name	Scientific Name	Wetland Indicator	CoC	Planting Rate
Boxelder	*Acer negundo*	FACW	0	400/acre Shrub clusters Trees 10-25 feet apart
Red maple	*Acer rubrum*	FAC	1	
Silver maple	*Acer saccharinum*	OBL	2	
Grey birch	*Betula populifolia*	FAC	4	
Hackberry	*Celtis occidentalis*	FAC	4	
Buttonbush	*Cephalanthus occidentalis*	OBL	8	
Silky dogwood	*Cornus amomum*	FACW	5	
Red osier dogwood	*Cornus sericea*	FACW	4	
Green ash	*Fraxinus pennsylvanica*	FACW	2	
Spicebush	*Lindera benzoin*	FACW	6	
Black gum	*Nyssa sylvatica*	FAC	5	
Ninebark	*Physocarpus opulifolius*	FACW	5	
American sycamore	*Platanus occidentalis*	FACW	3	
Eastern cottonwood	*Populus deltoides*	FAC	2	
Swamp white oak	*Quercus bicolor*	FACW	7	
Bur oak	*Quercus macrocarpa*	FAC	6	
Pin oak	*Quercus palustris*	FACW	7	
Black willow	*Salix nigra*	OBL	3	

Table 5-2e. PFO- Red Maple Hardwood Swamp				
Common Name	Scientific Name	Wetland Indicator	CoC	Planting Rate
Red maple	*Acer rubrum*	FAC	2	400/acre Shrub clusters Trees 10-25 feet apart
Silver maple	*Acer saccharinum*	FACW	6	
Ironwood	*Carpinus caroliniana*	FAC	5	
Bitternut hickory	*Carya cordiformis*	FAC	5	
Blackgum	*Nyssa sylvatica*	FAC	7	
American sycamore	*Platanus occidentalis*	FACW	6	
Eastern cottonwood	*Populus deltoides*	FAC	2	
Swamp white oak	*Quercus bicolor*	FACW	7	

American elm	*Ulmus americana*	FACW	3	
Slippery elm	*Ulmus rubra*	FAC	8	

Table 5-2f. PFO- Hemlock Hardwood Swamp

Common Name	Scientific Name	Wetland Indicator	CoC	Planting Rate
Balsam fir	*Abies balsamea*	FAC	5	400/acre
Red maple	*Acer rubrum*	FAC	2	Shrub clusters
Yellow birch	*Betula alleghaniensis*	FAC	5	Trees 10-25 feet apart
Red spruce	*Picea rubens*	FACU	6	
Eastern white pine	*Pinus strobus*	FACU	5	
Eastern hemlock	*Tsuga canadensis*	FACU	5	
High bush blueberry	*Vaccinium corymbosum*	FACW	6	

5.6 Timing and Sequence

Micron's large project size will require a phased approach for construction; and the wetland mitigation effort will follow a similar phased approach consistent with regulatory requirements. See 33 C.F.R. § 332.3(m) "Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of **or concurrent with the activity causing the authorized impacts**." The Buxton Creek Site will be developed first, along with Oneida River and Lower Caughdenoy Creek wetlands (**Figure 5-3**).

Table 5-3. Mitigation Site Sequence

Site Name	2025	2026	2027	2028	2029	2030	2031 ~	∞ In Perpetuity
Buxton Creek Stream and Wetlands		**Construction begins**		**Monitoring, maintenance, and adaptive management after construction for a 15-year period* after approved as-built (not to scale)**				**Permanent stewardship begins after monitoring period ends, pending agency approval**
Oneida River Wetlands		**Construction begins**						
Lower Caughdenoy Creek Wetlands		**Construction begins**						
Fish Creek Stream and Wetlands			**Construction begins**					
Upper Caughdenoy Creek Wetlands				**Construction begins**				
Sixmile Creek Wetlands					**Construction begins**			

The construction sequence at Buxton Creek follows that shown in **Table 5-4**. The site will be constructed in one year or less with the following spring dedicated to planting that will initiate the

10-year monitoring and maintenance window to meet success criteria. Planting in the fall may occur if it is advantageous to plant establishment.

The mitigation work plan at Buxton Creek will be phased in several steps. The treatment of existing invasive vegetation will begin as early as possible to minimize spread to work areas once agricultural activities cease and the stream and wetlands are constructed. Sections of stream and adjacent wetlands will be constructed concurrently and seeding/planting will be completed after all grading is complete.

Table 5-4. Construction Sequence

Activity	Timing	Phase
Invasive species management.	Spring Year 1*	Pre-construction
Work area layout and preparation, SWPPP implementation.	Spring Year 1	Pre-construction
Groundwater dam installation, basin excavation, pond and ditch filling. Erosion control seeding.	Summer Year 1	Construction Phase I: Earthwork
Final grading to develop microtopography, loosening of soil as necessary.	Summer Year 1	Construction Phase II: Topography Enhancement
Seeding, planting, and mulching per planting plan and SWPPP, placement of woody debris for a natural look	Fall Year 1	Construction Phase III: Seeding & Planting
Removal of all construction materials and general site clean-up. Erosion and sediment control structures (silt fencing) will be removed once site is stabilized.	Fall Year 1	Post-construction

*invasive species management will likely begin prior to this time with repeat treatments

5.7 Sediment and erosion control measures

All erosion and sediment control practices will be installed as specified by the Stormwater Pollution Prevention Plan (SWPPP, **Appendix G**) prior to any ground disturbance. The limit of disturbance and spoil deposition areas will be clearly marked to ensure ground disturbances are minimized. Temporary erosion and sedimentation control measures in and around mitigation sites will receive consistent and constant inspection and maintenance by qualified personnel. Spoil and sediment collected will be removed and placed upland in a manner that prevents erosion and transportation of sediment to a waterway or wetland. All erosion and sediment control devices and structures will be removed once full stabilization is achieved and no later than three full growing seasons after the planting of the mitigation site.

6. Wetland Performance Standards

Success within the mitigation sites is based on wetland acreage meeting the USACE criteria for the three parameters described in the 1987 Corps of Engineers Wetland Delineation Manual and 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, or any amendments thereto. Mitigation success will also depend on the

establishment of wetland community types that replace in form and function the impacted wetlands. Credits generated are determined by acreage meeting the following parameters, in addition to the final vegetative goals:

- Hydrology: the wetland area is inundated, or the water table is ≤12 inches below the soil surface for ≥14 consecutive days during the growing season at a minimum frequency of 5 years in 10. Any combination of inundation or shallow water table is acceptable in meeting the 14-day minimum requirement. For wetland re-establishment areas, deepwater aquatic habitats and/or vegetated shallows will only be credited where they equal 10% or less of the re-establishment areas on the site and are part of a well-integrated complex. Vegetated shallows and/or deep-water habitats over 0.1 acre in size will be mapped in each monitoring report/delineation. It is not anticipated that any such aquatic habitats will develop at the site.
- Vegetation: the wetland area demonstrates a relative dominance of Facultative (FAC) or wetter plant coverage, meeting one or more USACE Wetland Determination Data Form Hydrophytic Vegetation Indicators.
- Soils: the wetland area contains soil profiles that demonstrate one or more USACE Wetland Determination Data Form Hydric Soil Indicators.

By the end of the 15-year monitoring period, the site shall meet or exceed the following vegetative performance standards (see also **Table 6-1**):

- **Palustrine Emergent Wetland (PEM):** The areas meeting palustrine emergent wetland criteria will have ninety percent (90%) relative cover of wetland work areas by native hydrophytes (FAC, FACW, or OBL). Monitoring will be conducted yearly with interim targets of 20% relative cover after the first full year after planting, 40% by Year 3, 60% by Year 5, and 80% by Year 7, providing sufficient time to assess progress and account for any adaptive management needs to ensure final success criteria will be met. Final performance standards met at 10 years.

  Deep emergent and shallow emergent marsh (Edinger et al. 2014) are the targeted cover types for PEM areas.
  - Shallow marshes will be 6 inches to 3 feet deep with exposed soils in the summer and very variable in species.
  - Deep emergent marshes will be 6 inches to 6 feet deep, less likely to have exposed soils, and very variable in species, with species more likely to be submerged or floating.
- **Palustrine Scrub Shrub (PSS)**: The areas meeting palustrine scrub shrub criteria will have at least 400 native shrubs/trees per acre, and those stems will display normal and healthy growth, free of disease and pests. At least 280 of those stems will be native shrub species.

Stem density monitoring will be conducted biannually, providing sufficient time to assess progress and account for any adaptive management needs to ensure final success criteria will be met.

- **Palustrine Forest (PFO)**: The areas meeting palustrine forest criteria will have a minimum of 400 native, live, and healthy (disease- and pest-free) woody plants growing per acre. At least 280 of these will be native tree species. Stem density monitoring will be conducted biannually for a period of 15 years, providing sufficient time to assess progress and account for any adaptive management needs to ensure final success criteria will be met.

  Because tree height is an important factor in reducing long-term herbivory and ensuring overall success, monitoring will also occur for a period of 15 years, with average tree height targets within planting areas at 2 ft. by the 3rd year of vegetation growth, 3 ft. by the 5th year of vegetation growth, 4 ft. by the 7th year of vegetation growth, 6 ft. by the 10th year of vegetation growth, 8 ft by the 12th year, and 9 ft by the 15th year. The wetland forest types targeted are:
  - Floodplain Forest, will be planted adjacent to streams
  - Red-maple hardwood swamp- can be characterized by being seasonally flooded with hummocks and hollows, and red maple will most likely be the dominant canopy tree. Although ash may be abundant, those species are no longer planted.
- **Invasive Species**
  - Wetland acreage will have a final target of less than 5% relative cover of all non-Typha invasive plant species such as, but not limited to: purple loosestrife, common reed, and reed canarygrass. Interim targets will be 15% the first year following planting, 15% by Year 3, 12.5% by Year 5 and 10% by Year 7.
  - Due to the difficulty of distinguishing the three species of cattails, as well as the likelihood that at least one of these will be present in many types of New York wetlands, the total relative cover of all invasive species, including cattails, will be less than 10%. Interim targets will be 20% the first year following planting, 18.5% by Year 3, 15% by Year 5 and 12.5% by Year 7.
- **VIBI:** The vegetation index of biotic integrity "floristic quality" (VIBI-FQ) of the rehabilitated and re-established wetlands will be equal to or greater than 40 by the end of the monitoring period. Final scores will be dependent on baseline VIBI scores and will have a minimum of 10-point increase. VIBI plots will be placed in each cover type for re-establishment and rehabilitation. Interim targets will aim for a score of 15 or more by the first year following planting, ≥20 by Year 3, ≥30 by Year 5, and ≥35 by Year 7.

Table 6-1. Wetland Performance Standards and Interim Goals

Performance Standard	Interim and Final Goals						
	Year 1[1]	Year 3	Year 5	Year 7	Year 10[2]	Year 12	Year 15[3]

Relative cover by native perennial hydrophytes (FAC or wetter)	20%	40%	60%	80%	90%		
Stem density in PSS areas (per acre, at least 280 must be shrub species)	400	400	400	400	400		
Stem density in PFO areas (per acre, at least 280 must be tree species)	400	400	400	400	400	400	400
Tree height in PFO areas	1 ft	2 ft	3 ft	4 ft	6.6 ft	8ft	9ft
Relative cover of all non-Typha invasive plant species in PEM, PSS, and PFO areas	15%	15%	12.5%	10%	5%		
Total relative cover of all invasive species, including Typha spp. in PEM, PSS, and PFO areas	20%	18.5%	15%	12.5%	10%		
VIBI-FQ score	≥15	≥20	≥30	≥35	≥40		

1. First full growing season following planting
2. Final herbaceous/PEM and PSS goals to be met at this time or additional monitoring years added
3. Final PFO (tree height and density) goals to be met at this time

7. Stream Credits

The stream credits for this Buxton Creek Plan are based on re-establishment, thus a 1:1 credit ratio has been applied, ensuring that each linear foot of restored stream generates an equivalent amount of mitigation credit in accordance with regulatory expectations.

Table 7-1. Anticipated stream feet and credits generated

Site	Stream Restoration linear feet	Credit Ratio	Credits
Buxton Creek	8,617	Re-establishment (1:1)	8,617
Total	8,617		8,617

8. Stream Mitigation Work Plan

8.1 Design Considerations

To develop a Stream Mitigation Strategy to offset impacts to streams on the Micron Campus, TWT and Ramboll took into consideration the following strategies:

1. Use of NYSDEC Tribs for Trees assessment to account for different stream restoration and protection measures. This enabled comparison of mitigation measures using a comprehensive system of stream credits.
2. Protection and restoration of singular stream corridors as stand-alone projects.
3. Restoration of stream reaches and buffers on TWT wetland mitigation properties.
4. Full restoration of stream reaches on TWT properties in concert with wetland mitigation to create a more functional stream wetland complex.

After examining these options, and assessing the benefits of each, full restoration of a stream/wetland complex is found to be the best option. It provides not only the highest ecological lift for streams but complements the wetland restoration resulting in the entire system demonstrating the maximum uplift over individual stream and wetland components alone.

Reference Stream Reaches

Local streams that have not been relocated, channelized, placed underground, affected by head cuts, or otherwise heavily altered were used to inform the design of the mitigation streams. Key reference streams were portions of Fish Creek, Bell Creek, and Sixmile Creek as shown in **Figures 8-1a-e.** Reference reach #1 (**Figure 8-1b**) is most proximate to the Buxton Creek property to the northwest. The imagery shows a stream that is braided with a complex of wetlands on nearly level ground. Bell Creek and Sixmile Creek references reaches #2-4 **(Figures 8-1c-e**) exemplify the sinuosity and presence of wetlands on the floodplain of natural streams in the area.

Watershed Characteristics

Buxton Creek flows 4.28 miles north to south in a watershed of 3.96 square miles. The stream originates from an area around Blumer Road south through TWT's Johnson Farm Preserve, under NYS Route 49, to Buxton Creek, under Bell Road and off TWT property through wooded areas and agricultural areas to the Oneida River. There are no human constructed dams along the length of the stream, only beaver activity. The watershed is largely dominated by conventional farming, former muck farms, forested wetlands, forested uplands, and scattered residential development along main roads. There are no industrial sites or extensive impermeable developed areas in the watershed. The amount of land farmed today is considerably less than even recent history with many farmed areas growing or having grown into forests. There are a few road crossings with bridges and culverts across the stream.

Existing Channel Characteristics

Stream restoration at the Buxton Creek site involves the main channel and a tributary to the main channel. The existing stream channels are ditches measuring approximately 8 feet wide by three feet deep. The channels have been straightened and designed to carry water around and away from the agriculture fields. The channels are deeper than historic channels, flowing in a thick clay layer. The floodplain of the streams is regularly cleared using heavy machinery. The streams have artificially high banks to contain flows in the stream with sporadic cuts in the bank to allow sheet flow from fields to discharge into the ditch. Former channels can be found adjacent to the excavated channel, and are considerably higher, more shallow and wider in comparison to the ditch. On the north side of Bell Road, Buxton Creek restored reaches 1.2-1.4 are historic natural channels of Buxton Creek where the flows will be returned. The southern reaches of the existing channel south of Bell Road show sinuosity, but this is not a historic channel. This sinuosity is where the stream was left to find its own course after being tilled over, and it cut through the fine

Figure 8-1a. Reference Stream Reaches

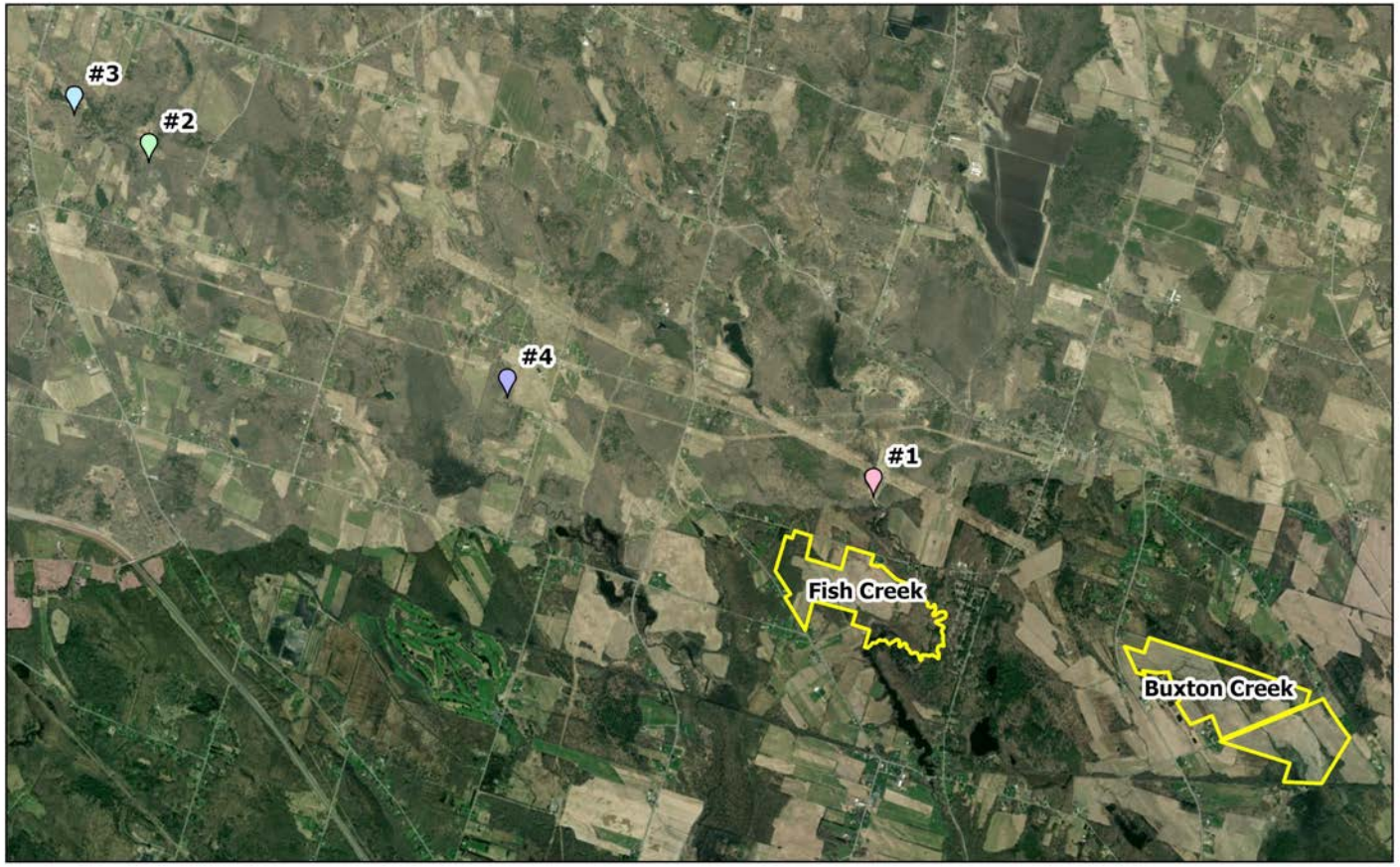
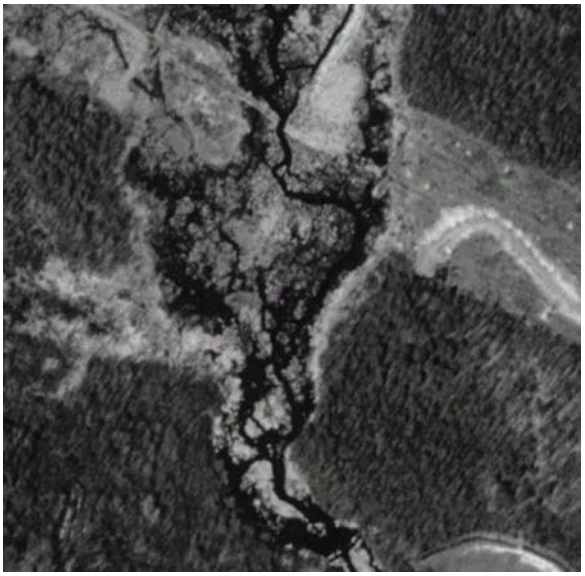


Figure 8-1b. Reference Reach #1 Fish Creek



Imagery: 1994, Location: 43.304067, -76.271105

Figure 8-1c. Reference Reach #2 Bell Creek

Imagery: 2017, Location: 43.330381, -76.348298

Figure 8-1d. Reference Reach #3 Bell Creek

Imagery: 2017, Location: 43.334094 -76.356244

Figure 8-1e. Reference Reach #4 Sixmile Creek

Imagery: 1994, Location: 43.311918, -76.310130

Figure 8-2a. Buxton Creek North of Bell Road

Figure 8-2b. Buxton Creek South of Bell Road

material placed in it. See **Figures 8-2a** and **8-2b** for 1994 aerial imagery where the historic channels are visible.

Bell Road Bridge

Buxton Creek flows under Bell Road through a small concrete bridge with an opening measuring approximately 4 feet 4 inches high by 10 feet wide (see right). This design has taken every precaution to ensure that the Bell Road bridge over Buxton Creek will continue to perform as well if not better than current conditions. This will be accomplished by ensuring that streambed elevations below the bridge are lower than the streambed flowing under the bridge so water will not back up under the bridge. Similarly, the restored channels to the north of the Bell Road bridge largely use existing historic channels that will slow and calm the flow approaching the bridge. Further, high flows north of the bridge will be able to spread into established wetlands in the adjacent field. And there are no changes proposed for the straight reach approaching the bridge.

8.2 Work Plan

Shallow sinuous stream channels with wide and varied floodplains will be built to create conditions where the valley becomes saturated, supporting a diversity of wetlands. The streams, floodplain, and re-established wetlands will mimic the undisturbed nature of streams in the area. Existing ditches will be filled in select areas and restored to wetlands. Ramboll hydrologists and engineers reviewed the restoration concept and using StreamStats data, field data (stream surveys, velocity data, sediment assessment), and current topography to .5-1 feet resolution collected by a drone with LiDAR sensor confirmed the channel dimensions, slope, sinuosity and overall approach to restoration of creating a stream wetland complex. See **Appendix H** for specifications.

Stream Channel

Stream channels from 2-6 feet wide with 6-18 inches deep pools, depending on the characteristics of the reach, will be restored. Stream channels will be narrower where the valley slope is steeper than 3-percent and wider where the valley slope is less than 3-percent.

Streambanks

Bank will generally be 6 inches high and allow flow across the floodplain in a sheet-like pattern. (**Appendix H**). The stream banks will have slopes ranging from 5-33 percent.

Floodplains

Floodplains will be restored to a width of 66 feet, generally, where valley slopes are less than 1 percent, with narrower floodplains being built on any steeper slopes. Floodplains will be restored to support wet-meadow wetlands on either side of the stream channel, with shrub-scrub wetlands

on slightly higher ground, and forested wetlands being restored along the outer edge of the floodplain.

Established Wetlands and Buffers

Established wetlands will be constructed up to the floodplain along with small upland inclusions and upland buffers.

Vertical Grade Control

Head-cuts greater than 2-foot vertical will generally be controlled by installing vertical grade control structures made using 6–12-inch diameter angular rock, mixed with fines, that is buried in the ground across the floodplain of the stream (**Figures 8-1 and 8-2**), immediately upstream and adjacent to the head-cut being controlled. Buried vertical grade control structures will also be placed near the downstream end of each stream being restored to protect the stream from head-cuts located downstream on land not owned by TWT. Head-cuts less than 2-foot vertical may be controlled using the slope and armor technique.

Figure 8-1. Head-cut Repair with Rock Armor

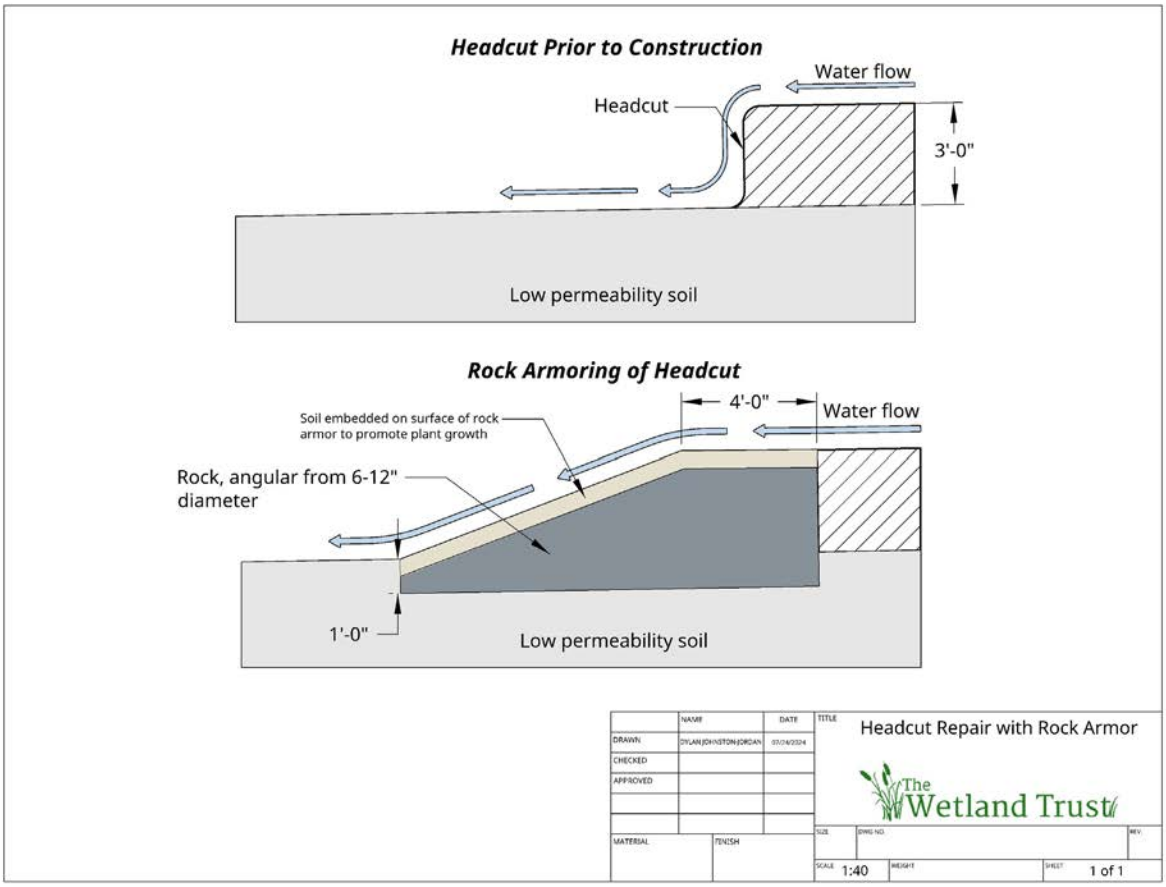
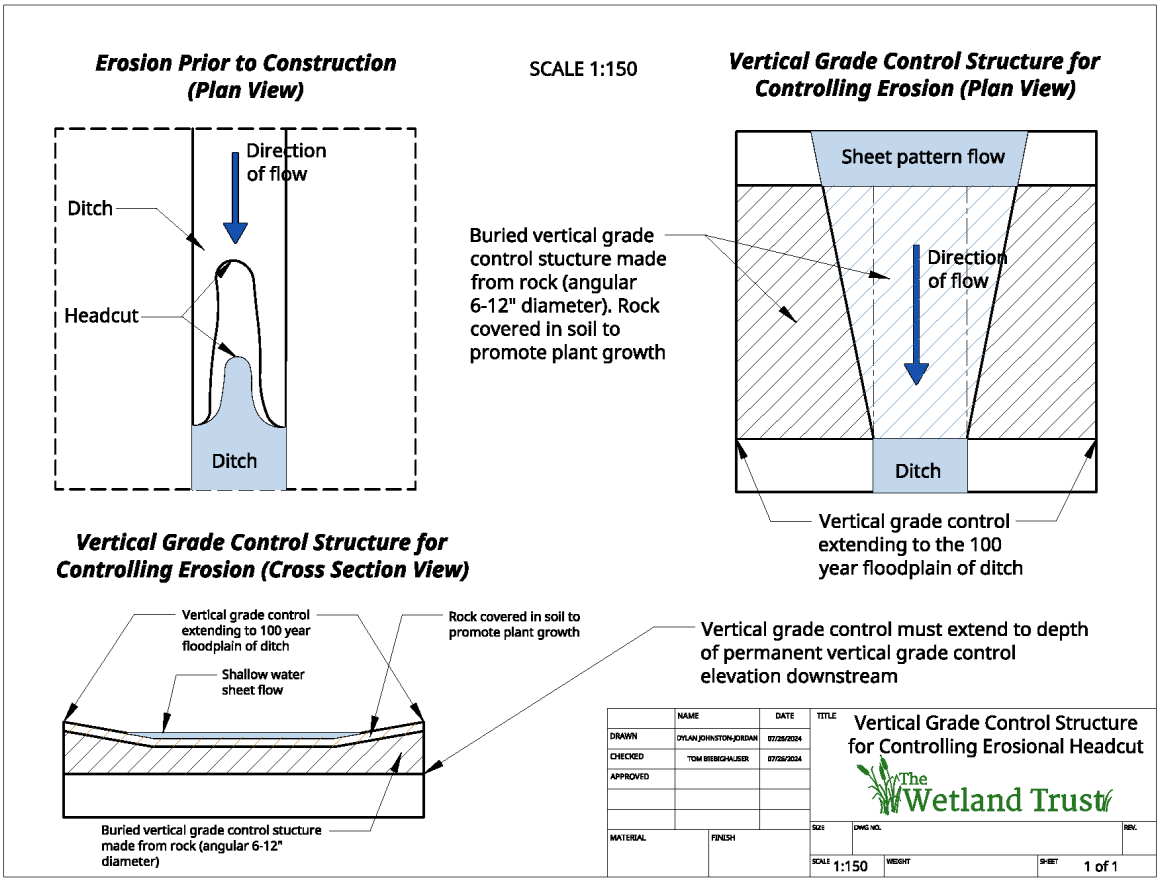


Figure 8-2. Vertical Grade Control Structure (Plan View)



Embedded Rock

If necessary, erosion will be controlled by embedding rock in the ground beneath restored stream channels and floodplains. Topsoil will be spread over the rock on the floodplain to establish plants. Topsoil will generally not be spread in the restored stream channel to control erosion. Rock will be used as needed to armor sections of the restored stream channel and floodplain to control erosion. This armoring will be necessary on steeper sections downstream of the bridge and where the restored stream connects with the existing ditch.

Riffle Crests

Naturally appearing riffles and riffle crests will be built where restored streams flow out of re-established wetlands. These riffle crests will be placed to prevent erosional head-cuts from forming and prevent erosion from occurring in the restored stream and re-established wetlands. (Figure 1.84-A and Figure 1.84-B).

Figure 8-3. Buxton Creek Stream Restoration Profile

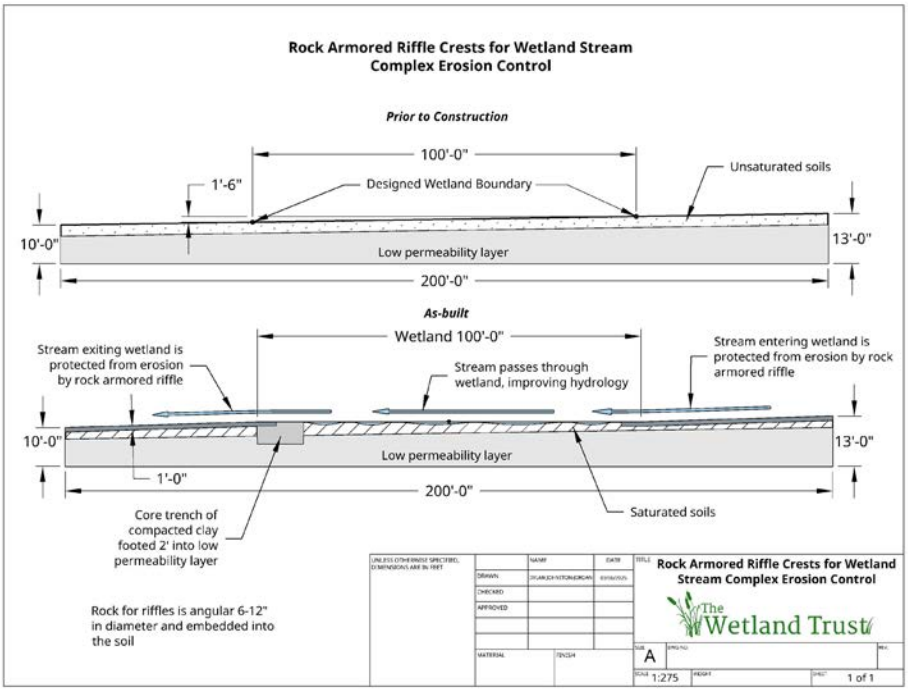
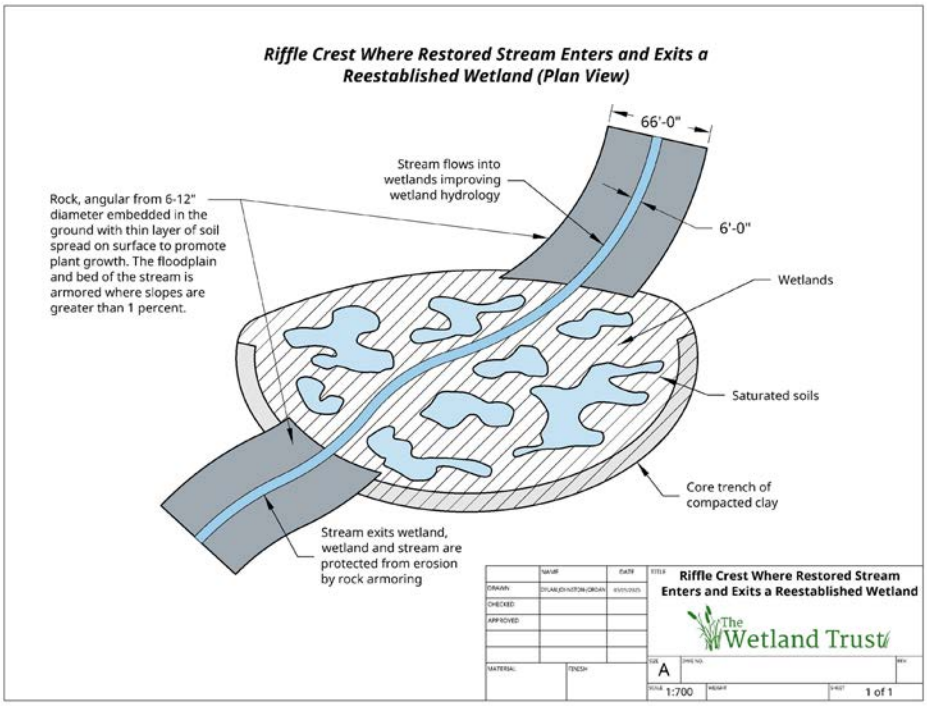


Figure 8-4. Riffle Crest Plan View



9. Stream Performance Standards

Success of stream restoration will rely on the linear footage of re-established stream that meets the performance standards (USACE 2016b) described below:

- **Perennial Stream Reaches:** The sections of re-established streams exhibiting perennial flow shall meet the following performance standards:
  - Less than 15% increase in cross sectional area of stream reaches caused by erosion.
  - A bank height ratio (BHR) less than 1.2 at riffle cross-sections.
  - Entrenchment ratio (ER) greater than 1.4 at riffle cross-sections.
  - Stream reach meets a Natural Resource Conservation Service (NRCS) Stream Visual Assessment Protocol Version 2 (SVAP 2) average of 7.
- **Intermittent and Ephemeral Stream Reaches:** The following indicators of stream hydrology shall be observed during the monitoring period or adaptive management shall be implemented:
  - Scour (indicating sediment transport by flowing water)
  - Sediment deposition (accumulations of sediment and/or formation of ripples)
  - Sediment sorting (sediment sorting indicated by grain-size distribution within the primary path of flow)
  - Multiple observed flow events (must be documented by gauge data and/or photographs)
  - Destruction of terrestrial vegetation
  - Presence of litter and debris
  - Wracking (deposits of drift material indicating surface water flow)
  - Vegetation matted down, bent, or absent (herbaceous or otherwise)
  - Leaf litter disturbed or washed away
- **Vegetation**
  - Vegetation performance standards will be consistent with those described above for wetlands.

- **Stream Visual Assessment Protocol Version 2 (SVAP2):** The Natural Resource Conservation Service (NRCS) *Stream Visual Assessment Protocol Version 2* (SVAP 2) will evaluate the physical and biological parameters of restored reaches qualitatively and quantitatively. This evaluation tool provides an indication of the health of a stream and its associated riparian area and of the functions and services they perform in the landscape. This is achieved by scoring and averaging up to 16 different stream attributes, or "elements", identified in Table 10-2, to derive an overall stream health score.

  Each relevant assessment element (e.g., salinity is not applicable to the proposed mitigation reaches) will be scored with a value of zero to 10 by comparing the observations to the descriptions in the SVAP2 Manual. Adding the values for each element and dividing by the number of elements will determine the overall assessment SVAP score. The following SVAP score index classify and describe the results:
  - 1 to 2.9 = Severely degraded
  - 3 to 4.9 = Poor
  - 5 to 6.9 Fair
  - 7 to 8.9 = Good
  - 9 to 10 = Excellent

  An SVAP score less than 7 indicates the need for adaptive management actions to the extent they raise the SVAP score to at least 7.

Table 9-1. Stream SVAP 2 Elements
Channel Condition
Bank Condition
Riparian area quantity
Canopy Cover
Water appearance
Manure or human waste
Aquatic invertebrate habitat
Aquatic invertebrate community
Fish habitat complexity
Pools
Hydrologic alteration
Nutrient enrichment
Riffle embeddedness
Barriers to movement
Salinity

10. Monitoring Requirements

There will be an initial post-construction "as-built" plan sheet of constructed features with 1' contours, map/descriptions of planted materials, wetland delineation by wetland cover type (PEM, PSS, PFO) and other habitat types e.g. tributaries, ditches, vegetated shallows, deepwater, estimates of invasive plant species cover within the re-establishment areas, and other information relevant for monitoring comparison.

Site monitoring begins after construction is completed and continues for ten (10) years unless additional monitoring is required to demonstrate achievement of performance standards. Monitoring information collected will determine if performance standards are being met and inform maintenance tasks or adaptive management needed to help meet those standards.

Each monitoring report will include:

- Work completed, as-builts, and milestones
  - Evaluation of progress toward all performance goals (i.e. Sections 6 and 9) as appropriate.
  - Report on the status of all erosion control measures on the mitigation site, and any additional temporary measures needed.
  - Weekly mapping of all work completed.
- Hydrological reporting
  - Hydrology data collected from permanent water wells, as well as hydrology information derived from Wetland Determination Data Forms completed throughout the site.
  - Maps showing the location and extent of wetland cover types (PEM, PSS, PFO) and other habitat types (e.g., tributaries, ditches, vegetated shallows, deepwater), locations of monitoring wells, staff gauges, and precipitation gauges.
  - Vegetated shallows and/or deep-water habitats >0.1 acre in size will be mapped and reported.
- Vegetation reporting
  - Description of the general plant health, vigor, and mortality including a prognosis for future survival with qualitative descriptions and photos illustrating tree growth.
  - Relative cover, stem density, and tree height reporting with descriptions of the monitoring protocols used.
  - VIBI scores and data sheets for wetland rehabilitation areas.
- Wildlife reporting
  - List of wildlife observed and other salient biological occurrences.
- Invasive species reporting
  - Relative cover of invasive species with descriptions of the monitoring protocols used.
  - Any areas >0.1 acre that are dominated by invasives will be mapped with acreages.
- Corrective actions proposed/implemented
  - Description of remedial actions completed during the monitoring year. Any measures requiring additional soil manipulation or changes in hydrology, all of which will be undertaken only after written approval from NYSDEC and USACE Buffalo District.
- Other
  - Photographs at permanent photo points.

10.1 Reporting schedule

After an initial Post-Construction As-Built Report, monitoring reports will be submitted by December 31st of the monitoring year to describe conditions in the growing season. All reports in digital format will be submitted to USACE, Regulatory Branch, Auburn Office and NYSDEC, Region 7 Headquarters in Syracuse, with any hard copies provided upon request. All monitoring, reporting, requests, and adaptive management is the responsibility of the permittee, Micron, with implementation by TWT.

Table 10-1. Anticipated Reporting Schedule.

Activity	**Years Post Construction**															
Wetland	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Wetland and aquatic resources delineation		X		X		X		X		X		X		X		X
Hydrologic monitoring	*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Vegetation: native and invasive relative cover		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Vegetation: woody stem density and tree height		X		X		X		X		X		X		X		X
Vegetation: VIBI-FQ		X		X		X		X		X		X		X		X
Photo sequence		X		X		X		X		X		X		X		X
Detailed site mapping		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stream	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**					
Erosion monitoring (BHR, ER, cross section area)		X	X	X	X	X	X	X	X	X	X					
SVAP2 assessment		X	X	X	X	X	X	X	X	X	X					
Vegetation monitoring		X	X	X	X	X	X	X	X	X	X					
Detailed site mapping		X	X	X	X	X	X	X	X	X	X					
Reports	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
As-built report	X															

Monitoring & management report		X	X	X	X	X		X		X		X		X		X
*Location of wells and gauges will be detailed in the as-built report																

If construction takes more than one growing season to be completed, an interim construction report will be submitted and will describe completed tasks and those remaining. The monitoring timeline will begin following the completion of construction and planting activities described herein.

11. Maintenance Plan

Periodic maintenance activities will be expected to occur following initial construction and planting to ensure long-term viability of the restored and protected resources on the project sites. Below are descriptions outlining the projected maintenance activities during the monitoring period. Any maintenance activities undertaken will be documented in the appropriate monitoring report along with a discussion of any anticipated maintenance to be completed in future years. Significant adjustments such as earthwork will require USACE and NYSDEC approval.

11.1 Hydrology Maintenance

Immediately following construction and throughout the 10-year monitoring period, TWT will monitor the development of site hydrology to ensure that adequate and anticipated hydrology has been restored. It is understood that wetland hydrology may take time to develop, sometimes years, and the desired hydrology or hydric soils may not be achieved until later in the monitoring period. Factors that could negatively impact the intended hydrology include erosion of spillways, failed ditch plugs, compromised groundwater dams, unidentified drainage tiles, and wildlife activity (i.e. beaver and muskrats). If hydrology standards are not being met, TWT will determine if more time is needed for development or make the appropriate adjustments as soon as practicable, preferably before vegetation establishment to minimize disturbance. Possible maintenance actions addressing hydrology issues include:

- Reinforcing spillways with rock or installing other vertical grade control structures,
- Adjusting height/depth of ditch fill or groundwater dams,
- Additional drain tile searches,
- Trapping and/or relocating nuisance wildlife.

11.2 Vegetation Maintenance

The development of a healthy and diverse native vegetative community is crucial for the success of this wetland restoration project, therefore, TWT will closely monitor vegetative establishment following initial planting/seeding and throughout the 10-year monitoring period. Regular maintenance is intended to ensure the health and survival of native woody plants and herbaceous

species, to limit the establishment and spread of invasive plant species, and to keep performance standard progress on track. Maintenance actions for vegetative community health include:

- Herbivory prevention- Whitetail deer are a major threat to plant diversity (Blossey et al. 2024). TWT, to the degree practical, will install deer fence along the entirety of the wetland compensation areas with commercial grade 8 ft deer fence. The fence will stay on site for the project duration. To ensure other wildlife's free passage, the fence bottom will be raised to allow small mammals and herpetofauna to pass (about 6 inches),
- Tree and shrub maintenance to combat disease, herbivory, or competition from other plants,
- Supplemental planting/seeding of native trees, shrubs, or herbaceous vegetation,
- Managing invasive species as needed through mechanical or chemical control using aquatic-safe herbicides by a licensed applicator.

11.3 General Site Maintenance

General site maintenance is anticipated to occur regularly throughout the 10-year monitoring period and beyond. As the fee-simple owner of the site, TWT bears responsibility for all non-ecological maintenance tasks, including but not limited to fence and gate upkeep, structural maintenance where applicable, signage installation, monitoring for vandalism, and maintaining trail/security cameras if deemed necessary.

12. Long Term Management Plan

The purpose of the Long-Term Management Plan (LTMP) is to ensure the long-term sustainability of the protected and restored resources after mitigation performance standards have been achieved. The LTMP has been included in **Appendix I**. As the site develops and matures, the LTMP will be amended as needed to include relevant information. After the monitoring period has ended, TWT will prepare a final LTMP to be submitted with the project's final monitoring report that will be reviewed and approved by the USACE. The final LTMP will address the site-specific future needs of the project based upon conditions at the time of the active period closeout.

12.1 Responsible Party

Micron is the Responsible Party for all phases of this permittee responsible mitigation through monitoring and final acceptance when a Certificate of Completion (or an equivalent) will be provided by the agencies. Once the mitigation is complete Micron will transfer long-term management to TWT.

12.2 Long-Term Monitoring and Management Activities

The LTMP includes the anticipated long-term monitoring and management activities and their estimated costs. These activities will be adjusted as needed throughout and after the active ecological monitoring period.

12.3 Long-Term Funding Mechanism

TWT has a director-controlled Stewardship Management Investment Account specifically established for Micron mitigation projects. This account's investment income will come from investment instruments that are low-risk and broad-based, (e.g., TWT may use 30-year Treasury Bonds) to support permanent long-term management and maintenance as described in the final LTMP. The entirety of the account will be funded before implementation starts at $8,000/credit (or per DEC restoration/creation acre) for the wetland compensation and $60/ft for stream compensation. The funding level designed in the Long-Term Management Budget in the LTMP is sufficient to sustain the long-term management of all of Micron's wetland and stream compensation. This fund will also have a clause in TWT's Bylaws that provides for its transfer along with the Micron lands to another NGO should that issue arise.

13. Adaptive Management Plan

Beyond the anticipated maintenance needs detailed in Section 11, preparedness for unexpected changes in site conditions is imperative to the continued success of the project. This adaptive management strategy outlines the approach for addressing potential challenges and unexpected changes, including those related to fire, climate change, disease, and other factors. Continuous monitoring to inform the adaptation of management strategies will ensure that the protected and restored resources remain resilient and meet long-term conservation goals. Potential challenges warranting adaptive management include:

- **Fire**: The effects of a significant fire event can lead to negative impacts on a young, re-established wetland. Fire can scorch and kill newly planted or immature vegetation, particularly woody species like trees and shrubs. The loss of vegetative cover can lead to increased soil erosion resulting in potential sedimentation issues to connected water bodies. Fire can create favorable conditions for invasive species as well as affect soil structure and permeability thereby altering hydrology. In the event of a significant fire event, TWT will address the loss of plants, erosion, and any other impacts and determine the appropriate adaptive management approach such as replanting, stabilizing soils, and/or monitoring water quality to facilitate recovery.
- **Climate change**: Changes in precipitation and temperatures associated with climate change can significantly affect wetland mitigation sites through a variety of mechanisms, impacting the hydrology, vegetation, wildlife, and overall ecological functions. To

adaptively manage the impacts of climate change on wetland mitigation sites, TWT can implement strategies such as altered water management practices and management of vegetative communities with an emphasis on native species resilient to climate variability and extremes.

- **Disease**: Unforeseen damage to wildlife, vegetation, and ecosystem services is possible via disease or pests. Pathogen spread or a pest invasion can decrease plant diversity and biomass, disrupting the wetland's structural integrity and the success of mitigation performance standards. Monitoring and early detection will be key to assessing such an event and implementing adaptive management strategies such as replanting (i.e. with hardier, disease-resistant species), sanitation processes and controlling the spread.
- **Flood**: Though wetlands aid in flood attenuation, a significant flooding event can have negative effects on a young wetland mitigation project. High energy floodwaters can cause soil erosion and sedimentation, leading to the damage of plant roots and flooding of vegetation. Ditch plugs or groundwater dams/low earthen berms that were installed during construction may fail or breach under serious flooding events. In such an event, TWT will determine the appropriate adaptive management action including replanting of the site, soil stabilization, or re-construction of ditch plugs and groundwater dams.

14. Financial Assurances

The short-term financial assurances for this compensatory mitigation plan will include individual performance bonds for each mitigation site to ensure compliance with permit requirements and project success. Experienced insurance brokers with the Great American Insurance Group will assist in preparing these financial assurances by providing guidance on structuring the performance bonds and ensuring they meet regulatory expectations. This approach ensures that each mitigation site is financially secured independently, providing clear accountability and reducing risk for both regulatory agencies and stakeholders.

15. References

Biebighauser, T.R., 2007. Wetland Drainage, Restoration, and Repair. University Press of Kentucky. 241 pages.

Biebighauser, T.R., 2015. Wetland Restoration and Construction: A Technical Guide (3rd ed.). Wetland Restoration and Training, LLC.

Blossey, B., D. Hare, and D.M. Walter. Where have all the flowers gone? A call for federal leadership in deer management in the United States. 2024. Front. Conserv, Sci. 5:1382132

Conley et al. 2018. New York State Riparian Opportunity Assessment.

Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. Ecological Communities of New York State (2nd ed.). A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Environmental Laboratory, 1987. Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.

Natural Resource Conservation Service (NRCS) 2009. Stream Visual Assessment Protocol Version 2 (SVAP 2)

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed Jun 2022.

US Army Corps of Engineers. 1999. USACE Highway Methodology Workbook Supplement

US Army Corps of Engineers. 2005. Regulatory Guidance Letter No 05-05 – Ordinary High Water Mark Identification

US Army Corps of Engineers. 2008. Jurisdictional Determination Form Instructional Guidebook.

US Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (v.2). ERDC/EL TR-12-1. Vicksburg, MS.

US Army Corps of Engineers. 2016b. Guidelines for Stream Mitigation Banking and In-lieu Fee Programs in Ohio

US Army Corps of Engineers 2016b. Wilmington District Stream and Wetland Compensatory Mitigation Update

US Environmental Protection Agency. 2005. Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations

Appendix A.

CONSERVATION EASEMENT

On lands of The Wetland Trust, Inc.

Bell Road, Town of Schroeppel, Oswego County, NY

covering a 201.7-acre portion of

Tax Parcels 274.00-02-15, 274.00-02-04.06 and 274.00-02-04.09

THIS DECLARATION OF CONSERVATION EASEMENT is made as of the _____ day of _____202_, by The Wetland Trust, Inc. (the "Grantor"), a New York not-for-profit with offices at 4729 State Route 414, Burdett, NY 14818, for the benefit of, but not the burden upon, The Wetland Conservancy, Inc. (the "Holder"), a New York not-for-profit entity having its office at P.O. Box 220, Burdett, New York 14818.

WHEREAS, Grantor is the owner in fee simple of approximately 253.9 acres of certain real property located in the Town of Schroeppel, County of Oswego, and State of New York, of which property is covered by this conservation easement and more fully described in Schedule A and annexed hereto (the "Protected Property"), and

WHEREAS, The Wetland Trust, Inc., a non-profit 501(c)(3) organization, is providing compensatory mitigation services to Micron New York Semiconductor Manufacturing LLC, with principal offices at 8000 South Federal Way, Boise, Idaho, 83716 for unavoidable adverse impacts to waters of the United States authorized under Section 404 of the Clean Water Act (33 U.S.C. § 1344) , and/or Sections 9 or 10 of the Rivers and Harbors Act (33 U.S.C. §§ 401, 403); and impacts to jurisdiction waters of New York State authorized under …….

WHEREAS, the Protected Property is to be protected in perpetuity through this Conservation Easement for those purposes as described in the Micron Buxton Creek Mitigation Plan, attached to this CE, pursuant to which The Wetland Trust, Inc., has committed to permanently protect and maintain a mitigation project on the Protected Property; and

WHEREAS, in relation to the compensatory mitigation activities, the Protected Property is subject to the conditions of the Mitigation plan, and any Federal or NY State Permit; and

WHEREAS, to ensure the long-term protection of the Protected Property, Grantor agrees to restrict ownership and use of the Protected Property: in order to protect, restore, and maintain the chemical, physical, and biological integrity of waters of the United States including wetlands through the control of discharges of dredged or fill material located on the Protected Property; in accordance with the common law and with the Conservation Easements provisions of New York Environmental Conservation Law ("**ECL**") Article 49, Title 3; in recognition of the continuing benefit to scenic and natural resources and the environment; and as a condition of being issued the Permit; and

WHEREAS, Grantor desires to declare, create, and convey to the Holder a Conservation Easement placing certain limitations and affirmative obligations on the Protected Property for the purpose of maintaining the Protected Property substantially in its natural condition, in perpetuity; and

WHEREAS, the purposes of this Conservation Easement are to protect the scenic, natural resource, and aquatic resource values of the Protected Property including native flora and fauna and the ecological processes that support them, diverse forest types and conditions, soil productivity, biological diversity, water quality, and aquatic habitats including wetlands; and

WHEREAS, the Holder is a 501 (c)(3) not-for-profit corporation and is qualified to hold a Conservation Easement in accordance with ECL Section 49-0305; and

WHEREAS, Grantor agrees, in accordance with ECL Section 49-0305.5, that rights of enforcement of the terms of this Conservation Easement shall be held by the Holder, and that the USACE, NYSDEC or other appropriate enforcement agencies of the United States or New York State hold rights of enforcement under the Permit; and

NOW, THEREFORE, for the foregoing consideration, and in further consideration of the restrictions, rights, and agreements herein, and for the purposes of preservation, protection, and conservation of the Protected Property and the conservation and wildlife resources thereon, Grantor hereby creates, gives, grants, bargains, and conveys to the Holder a perpetual easement in, to, over, and across the Protected Property subject to the Permit, , and any current and future modifications thereto.

A. RESTRICTIONS

Grantor shall ensure compliance with the following Restrictions on the Protected Property, which shall run with the Protected Property in perpetuity, and be binding on the Grantor, the Holder, and their respective successors, assigns, lessees, and other occupiers and users. These Restrictions are subject to Grantor's Reserved Rights, which follow.

1. **General**. There shall be no future fillings, flooding, excavating, mining, or drilling; no removal of natural materials (soil, sand, gravel, rock, minerals, etc.); no dumping of materials; and no alteration of the topography which would materially affect the Protected Property in any manner, except as authorized by the Permit, , and any modifications thereof.

2. **Waters and Wetlands**. In addition to the general restrictions above, within the Protected Property there shall be no draining, dredging, damming, or impounding; no changing the grade or elevation, impairing the flow or circulation of waters, or reducing the reach of waters; and no other discharges or activity requiring a permit under applicable water pollution control laws and regulations, except as authorized by the Permit, and any modifications thereof.

3. **Trees/Vegetation**. On the Protected Property there shall be no clearing, burning, cutting, or destroying of trees or vegetation, except as may be necessary to protect public health or safety or as authorized by the Permit, and any modifications thereof; there shall be no planting or introduction of non-native or exotic species of trees or vegetation.

4. **Waste Disposal.** There shall be no disposal or storage of liquid or solid waste or other unsightly, hazardous, toxic or offensive material on the Protected Property.

5. **Uses**. No agricultural, animal husbandry, industrial, residential development, mining, logging, or commercial activity shall be undertaken or allowed on the Protected Property.

6. **Structures**. There shall be no construction, erection, or placement of buildings, billboards, or any other structures, to include fences, parking lots, trailers, mobile homes, camping accommodations, or recreational vehicles, or additions to existing structures, on the Protected Property, except as authorized by the Permit, and any modifications thereof.

7. **New Roads**. There shall be no construction of new roads, trails, or walkways on the Protected Property

without the prior written approval (including approval of the manner of construction) of the Holder and the USACE and NYSDEC

8. **Utilities**. There shall be no construction or placement of utilities or related facilities (including telecommunications towers and antennas) in, over, or under the Protected Property without the prior written approval (including approval of the manner of construction) of the Holder, the USACE and the NYSDEC.

9. **Pest Control**. There shall be no application of pesticides or biological controls, including controls of problem vegetation, on the Protected Property without prior written approval (including approval of the manner of application) of the Holder, the USACE, the NYSDEC or as authorized by the Permit, and any modifications thereof.

10. **Vehicular Use**. There shall be no use of any motorized vehicle or motorized equipment, and no use of any non-motorized bicycle anywhere on the Protected Property, except in the case of emergency, for the purpose of enforcement of applicable laws and regulations, for the purpose of monitoring compliance with the purposes of this Conservation Easement, or as authorized by the Permit, and any modifications thereof.

11. **Subdivision**. There shall be no division or subdivision of the Protected Property.

12. **Marking**. The Grantor shall mark the limits of the Protected Property in a manner approved by the Holder, USACE, and NYSDEC and shall maintain the marking in place so as to notify the public that the Protected Property is an area preserved for conservation purposes.

13. **Other Prohibitions**. Any other use of, or activity on, the Protected Property which is or may become inconsistent with the purposes of the Conservation Easement, the preservation of the Protected Property substantially in its natural condition, or the protection of its environmental systems, is prohibited, except as authorized by the Permit, and any modifications thereof.

B. RESERVED RIGHTS OF GRANTOR

Grantor reserves the right to engage in all acts or uses not prohibited by the Restrictions, which are not

inconsistent with the Purpose of this Conservation Easement, the preservation of the Protected Property substantially in its natural condition, and the protection of its environmental systems, and which do not interfere with any obligations under the Permit, and any modifications or amendments thereof. Nothing herein shall be deemed to modify or amend any other or additional agreements between or among Grantor, the Holder, and/or the USACE and NYSDEC. In the event any of Grantor's acts or uses on the Protected Property are subject to review under the New York State Environmental Quality Review Act (SEQRA), Grantee and the Holder shall be designated as interested parties and notified of the review process.

C. GENERAL PROVISIONS

The following General Provisions shall be binding upon the Grantor and the Grantor's heirs, successors, grantees, transferees, administrators, assigns, lessees, licensees and agents, and shall inure to the benefit of the Holder, USACE and NYSDEC, and the heirs, successors, grantees, transferees, administrators, assigns, lessees, licensees and agents of the Holder, USACE and NYSDEC:

1. **Rights of Access and Entry.** The Holder, USACE and NYSDEC shall have the right to enter and go upon the Protected Property for purposes of monitoring and inspection, and to take actions necessary to verify compliance with the Restrictions. The Holder shall also have rights of visual access and view, and the right to enter and go upon the Protected Property for purposes of making scientific or educational observations and studies, and taking samples, in such a manner as will not disturb the quiet enjoyment of the Protected Property by Grantor. No right of access or entry by the general public to any portion of the Protected Property is conveyed by this Conservation Easement.

2. **Enforcement.** Grantor acknowledges and agrees that the Holder's, USACE's and NYSDEC's remedies at law for any violation of this Conservation Easement are inadequate. In the event of a breach of any of the Restrictions set forth above, the Holder, USACE, or NYSDEC will notify the Grantor in writing of the breach. The Grantor shall have thirty (30) days after receipt of such notice to undertake actions that are reasonably calculated to promptly correct the conditions constituting the breach. If the Grantor fails to commence such corrective action within thirty (30) days, or fails to complete the necessary corrective action, the Holder, USACE, or NYSDEC may undertake such actions, including legal proceedings, as are necessary to effect such corrective action. Among other relief, the Holder, USACE, NYSDEC shall be entitled to specific performance of the terms of this Conservation Easement and to a complete restoration of the Protected Property, correcting damage caused by any breach of the Restrictions. Breaches of the General Provisions of this Conservation Easement shall be actionable without notice. The costs of a breach, correction or

restoration, including reasonable Holder expenses, expert or consultant expenses, court costs and attorneys' fees, shall be paid by the Grantor. Enforcement shall be at the discretion of the Holder, USACE, or NYSDEC. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel or waiver. The Holder, USACE, or NYSDEC's enforcement rights are in addition to, and shall not limit, enforcement rights available under other provisions of law or equity, or under any applicable permit or certification. Failure to timely enforce compliance with this Conservation Easement or the use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce any provision of this Conservation Easement.

Events Beyond Grantor's Control. Nothing herein shall be construed to authorize the Holder or the USACE to institute any proceedings against Grantor for any changes to the Protected Property caused by acts of God or circumstances beyond the Grantor's control such as earthquake, fire, flood, storm, war, civil disturbance, strike, or similar causes.

3. **Obligations of Ownership.** Grantor is responsible for payment of all real estate taxes, assessments, fees, or other charges levied upon the Protected Property, and Grantor will provide copies of receipts evidencing payment of any such charges upon request of the Holder, USACE, or NYSDEC. Any liens, mortgages or other encumbrances affecting the Protected Property shall be subject to the terms of this Conservation Easement. The Holder, USACE, or NYSDEC shall not be responsible for any costs or liability of any kind related to the ownership, operation, insurance, upkeep, or maintenance of the Protected Property, except as expressly provided herein. Nothing herein shall relieve the Grantor of the obligation to comply with federal, state, or local laws, regulations, and permits that may apply to the exercise of ownership, or rights under this Conservation Easement, by Grantor.

4. **Recording.** The Grantor shall have this Conservation Easement duly recorded and indexed as such in the Office of the County Clerk of Oswego County, New York, as described in ECL Section 49-0305.4. Upon recording, the Grantor shall forward a copy of this Conservation Easement as recorded to the Holder, USACE, and NYSDEC and, as described in ECL Section 49-0305.4, the New York Department of Environmental Conservation.

5. **Extinguishment.** In the event that changed conditions render impossible the continued use of the Protected Property for conservation purposes, this Conservation Easement may only be extinguished, in whole or in part, by judicial proceeding under authority of ECL Section 49-0307. In accordance with 33 C.F.R. 332.7(a)(3), USACE must be provided 60-day advance notification

before any action is taken to amend or terminate this Conservation Easement.

6. **Eminent Domain.** If all or part of the Protected Property is taken in the exercise of eminent domain so as to substantially abrogate the Restrictions imposed by this Conservation Easement, the Grantor and the Holder shall promptly notify the USACE and NYSDEC and shall join in appropriate actions at the time of such taking to recover the full value of the taking, and all incidental and direct damages due to the taking. Each party shall be responsible for its own costs in any such legal proceeding.

7. **Proceeds of Taking.** This Conservation Easement constitutes a real property interest immediately vested in the Holder. In the event that all or a portion of this Protected Property is sold, exchanged, or involuntarily converted following an extinguishment or the exercise of eminent domain, the Holder shall be entitled to the fair market value of this Conservation Easement. The parties stipulate that the fair market value of this Conservation Easement shall be determined by identifying the fair market value of the Protected Property unencumbered by this Conservation Easement (minus any increase in value after the date of this grant attributable to

improvements) and subtracting the value of the Protected Property with the Conservation Easement at the time of this grant. The values at the time of this grant shall be the values used, or which would have been used, to calculate a deduction for federal income tax purposes, pursuant to Section 170(h) of the Internal Revenue Code (whether the grant is eligible or ineligible for such a deduction). The Holder shall use its share of the proceeds in a manner consistent with the purposes of this Conservation Easement.

8. **Notification.** Any notice, request for approval, or other communication required under this Conservation Agreement shall be sent by registered or certified mail, postage prepaid, to the following addresses (or such address as may be hereafter specified by notice pursuant to this paragraph):

To Grantor:

The Wetland Trust, Inc.
4729 State Route 414
Burdett, New York 14818

To Holder:

The Wetlands Conservancy, Inc
P.O. Box 220
Burdett, New York 14818

To the USACE:

U.S. Army Corps of Engineers, New York District ATTN:

Regulatory Branch
Room 1937, 26 Federal Plaza
New York, NY 10278-0090

And

U.S. Army Corps of Engineers, Buffalo District ATTN:

Regulatory Branch
1776 Niagara Street
Buffalo, NY 14207-3199

To the NYSDEC:

?

9. **Assignment.** This Conservation Easement is transferable, but only to a holder qualified under ECL Section 49-0305.3, and approved in writing by the USACE and NYSDEC before transfer. As a condition of such transfer, the transferee shall agree to all of the restrictions, rights, and provisions herein, and to continue to carry out the purposes of this Conservation Easement. Assignments shall be accomplished by amendment of this Conservation Easement in accordance with Section C, Paragraph 14. In accordance with 33 C.F.R. 332.7(a)(3), USACE must be provided 60-day advance notification before any action is taken to assign this Conservation Easement.

10. **Failure of Holder.** If at any time the Holder is unable or fails to enforce this Conservation Easement, or if the Holder ceases to be a holder qualified under ECL Section 49-0305, and if within a reasonable period of time after the occurrence of one of these events the Holder fails to make an assignment pursuant to paragraph 10, then the Holder's interest shall become vested in another holder, as approved by the USACE and NYSDEC, qualified in accordance with an appropriate (e.g., cy pres) proceeding, to be brought by the Grantor in a court of competent jurisdiction, or by Holder, USACE, and NYSDEC finding a replacement entity agreeable to USACE and NYSDEC

11. **Subsequent Transfer.** This Conservation Easement shall be perpetual and run with the land and shall be binding upon all future owners of any interest in the Protected Property. The conveyance of any portion of or any interest in the Protected Property, by sale, exchange, devise or gift, shall be made by an instrument which expressly provides that the interest thereby conveyed is subject to this Conservation Easement, without modification or amendment of the terms of this Easement, and such instrument shall expressly incorporate this Conservation Easement by reference, specifically setting

forth the date, office, liber and page of the recording of this Conservation Easement. The failure of any such instrument to comply with the provisions hereof shall not affect the validity or enforceability of this Conservation Easement, nor shall such failure affect the Holder's or the USACE' rights hereunder. No less than thirty (30) days prior to conveyance of any interest in the Protected Property, Grantor (to include any successor Grantor) shall notify the Holder, USACE, and NYSDEC of such intended conveyance, providing the full names and mailing addresses of all Grantees, and the individual principals thereof, under any such conveyance. In accordance with 33 C.F.R. 332.7(a)(3), USACE must be provided 60-day advance notification before any action is taken to transfer the Protected Property.

12. No **Merger of Interests.** In the event the same person or entity ever simultaneously holds an interest in the Protected Property under this Conservation Easement, and holds the underlying title in fee, the parties intend that the separate interests shall not merge.

13. **Amendment.** This Conservation Easement may be amended in accordance with ECL Section 49-0307, but only in a writing signed by the Grantor and the Holder, or their successors or assigns, and approved in writing by the USACE and NYSDEC, its successors or assigns; provided such amendment does not affect the qualification of this Conservation Easement or the status of the Holder under ECL Section 49-0305 or any other applicable law; and provided such amendment is consistent with the conservation purposes of this grant and its perpetual duration. Any amendment to this Conservation Easement shall be recorded and provided to the Holder, the USACE and the New York State Department of Environmental Conservation, in the manner set forth in paragraph C-5 above. In accordance with 33 C.F.R. 332.7(a)(3), USACE and NYSDEC must be provided 60-day advance notification before any action is taken to amend this Conservation Easement.

14. **Severability.** Should a court of competent jurisdiction find any separate part of this Conservation Easement void or unenforceable le, the remainder shall continue in full force and effect.

15. **Warranties by Grantor.** Grantor warrants that it owns the Protected Property in fee simple, and that Grantor owns all interests in the Protected Property that may be impaired by the granting of this Conservation Easement. Grantor further warrants that there are no outstanding mortgages, tax liens, encumbrances , or other interests in the Protected Property that have not been expressly subordinated to this Conservation Easement. Grantor further warrants that no structures of any kind, to include roads, trails or walkways, and no violations of restrictions of this of this Conservation Easement exist on the Protected Property at the time of execution hereof. Grantor further warrants that the Holder shall have the use of and enjoy all the benefits derived from and arising out of this Conservation Easement.

16. **No Gift or Dedication**. Nothing contained in this Conservation Easement shall be deemed to be a gift for dedication of all or any part of either the Permitted Property or the Protected Property to the public, or for public use.

IN WITNESS WHEREOF, Grantor and Holder have executed this Conservation Easement, as of the date written above.

Execution by Grantor: The Wetland Trust, Inc.

By: _____

Title:

STATE OF NEW YORK) ss.:

COUNTY OF Schuyler)

On the __day of _____in the year 202_ before me, the undersigned, a notary public in and for said state, personally appeared the Grantor _____, _____ of The Wetland Trust, Inc. personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

_____

Notary Public Date: _____

Approval and Acceptance by Holder: The Wetland Conservancy, Inc.

By: _____

Title: Chair

STATE OF NEW YORK) ss:

COUNTY OF Tompkins)

On the __day of _____in the year 202_ before me, the undersigned, a notary public in and for said state, personally appeared the Holder **Aaron Ristow**, Chair of The Wetland Conservancy, Inc. personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

_____ _____

Notary Public Date

Schedule A. Legal description of parcel to be covered by this Conservation Easement.

Town of Schroeppel, Oswego County, NY, covering a *201.7*-acre portion

of Tax Parcels

274.00-02-15, 274.00-02-04.06 and 274.00-02-04.09

ALL THAT TRACT OR PARCEL OF LAND,

[Left intentionally blank- awaiting boundary survey with descriptions of metes and bounds]

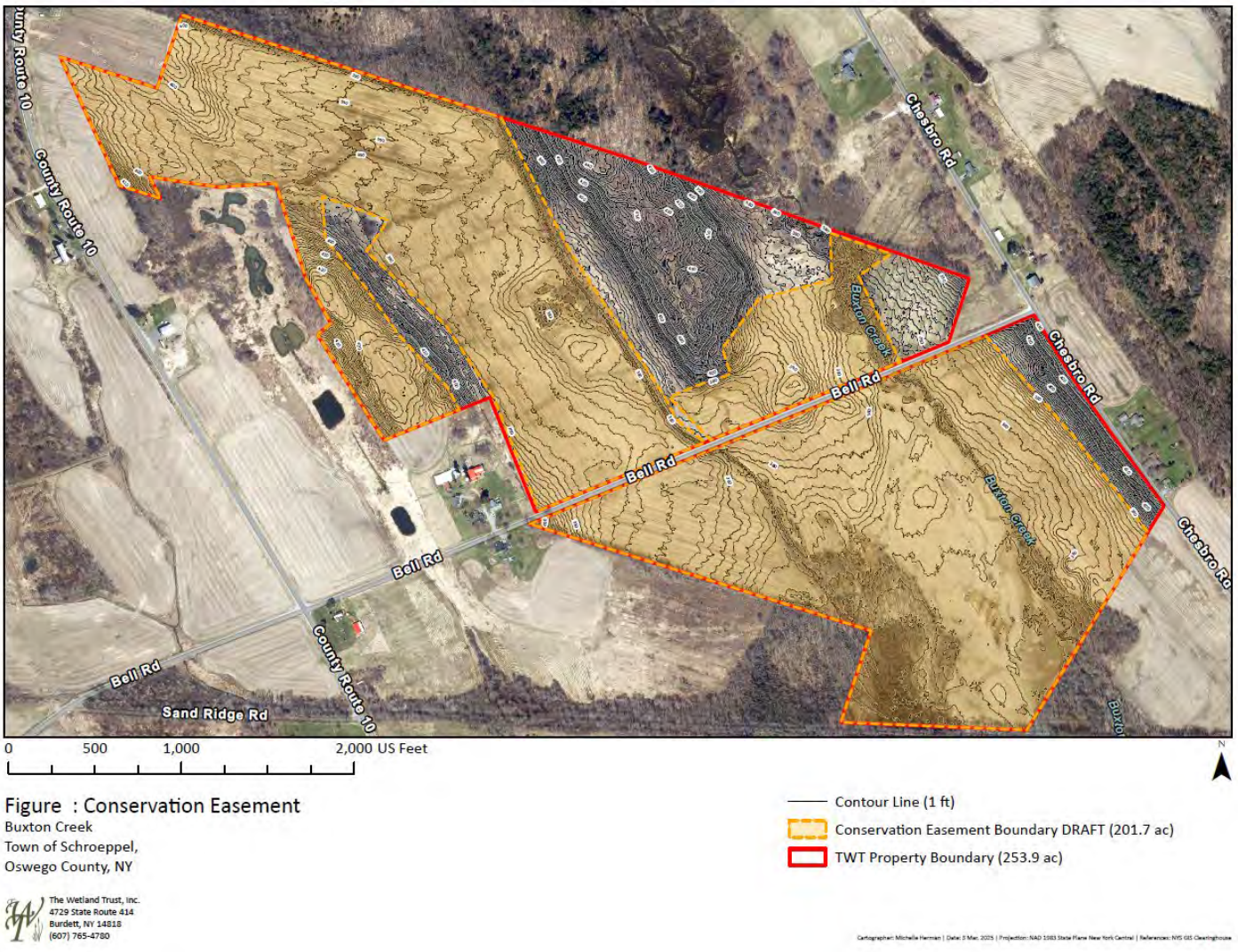


Figure : Conservation Easement
Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Appendix B.

Figure : Imagery (1955)

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Figure : Imagery (1959)

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

TWT Property Boundary (253.9 ac)

Figure : Imagery (1994)

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Figure : Imagery (2003)
Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Figure : Imagery (2006)
Buxton Creek
Town of Schroeppel,
Oswego County, NY

TWT Property Boundary (253.9 ac)

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

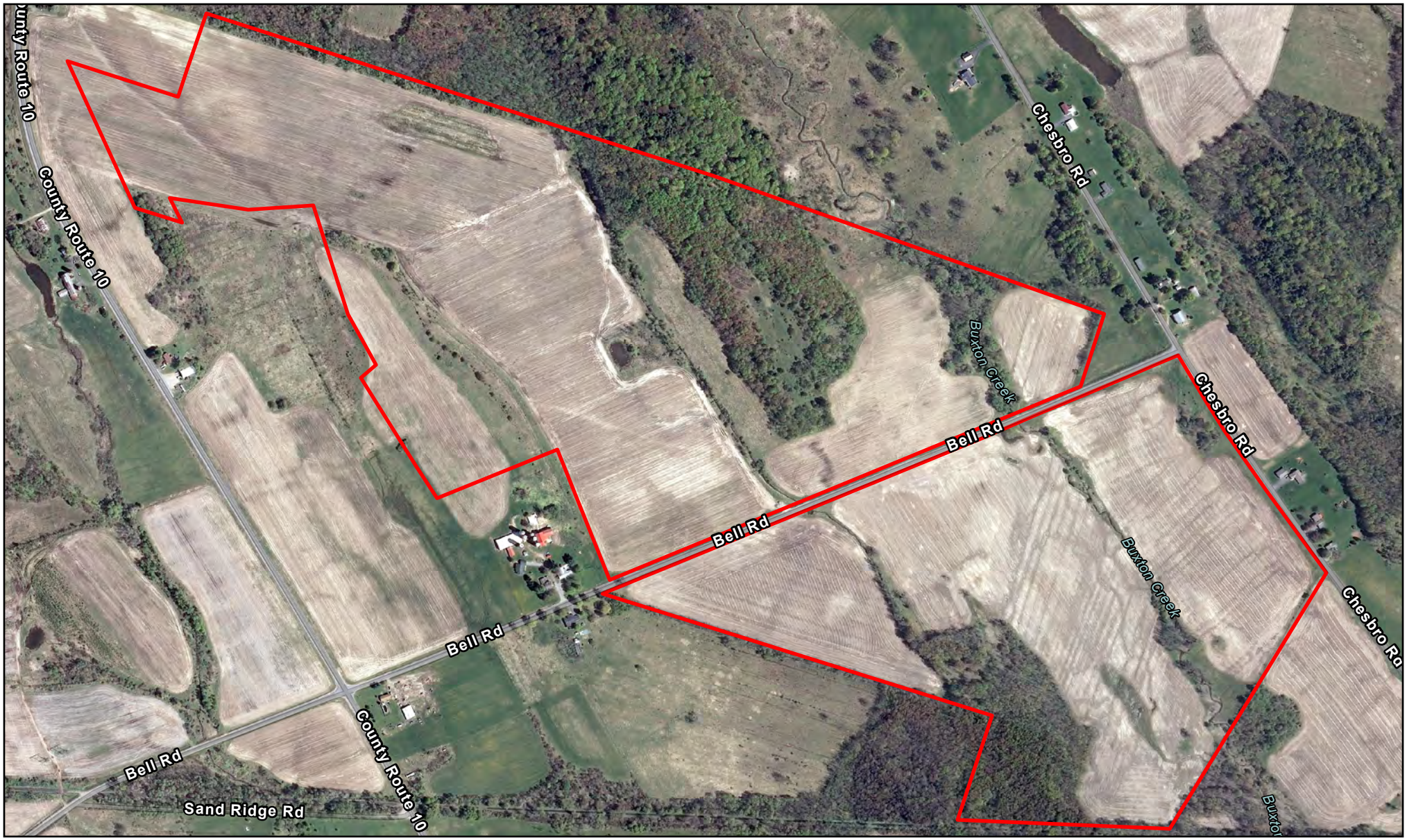


Figure : Imagery (2011)

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Figure : Imagery (2020)

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

Cartographer: Michelle Herman | Date: 15 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Appendix C.

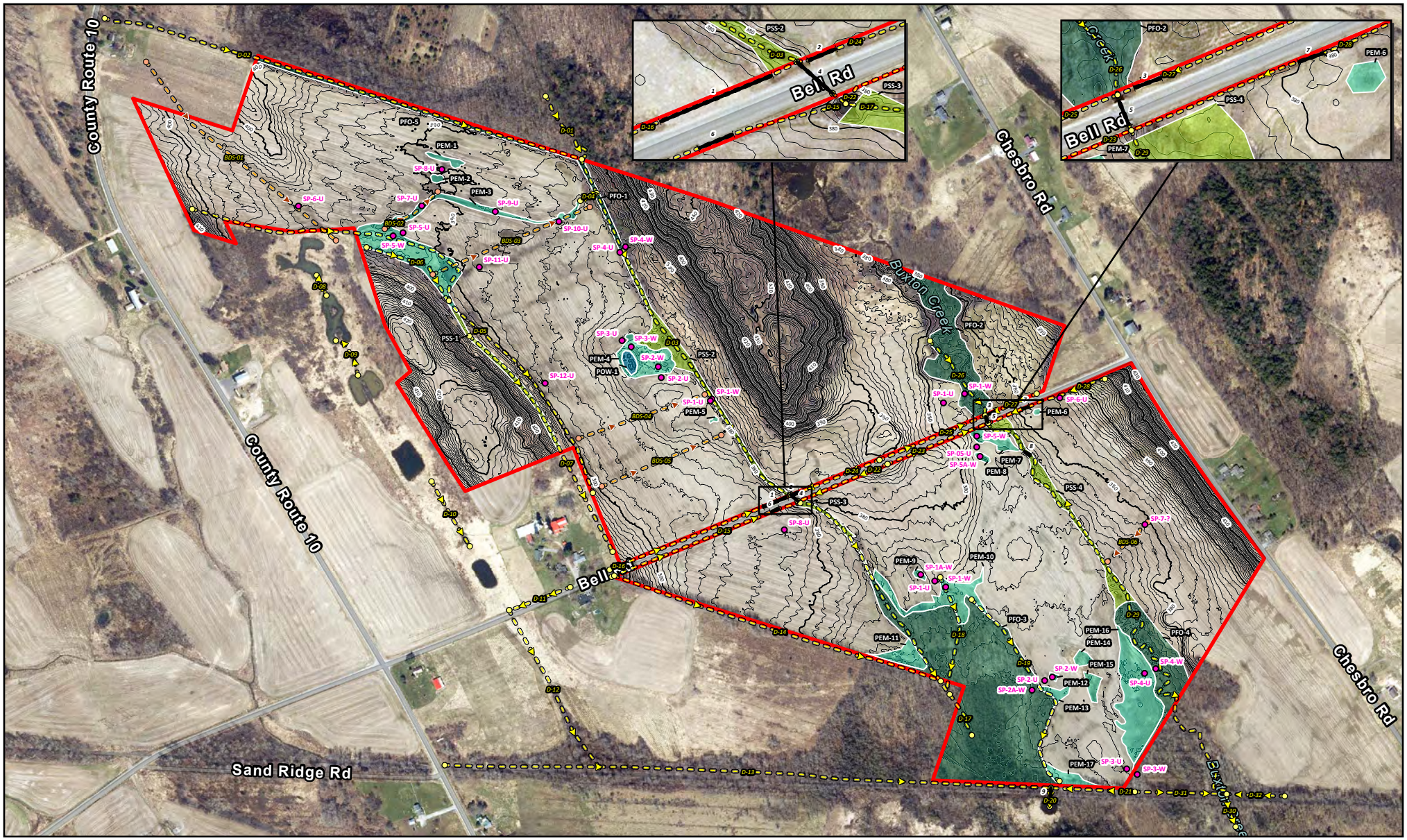


Figure: Delineated Wetlands and Drainage Features

Buxton Creek
Town of Schroeppel,
Oswego County, NY

The Wetland Trust, Inc.
4729 State Route 414
Burdett, NY 14818
(607) 765-4780

- Wetland Delineation Sample Points (n = 35)

Delineated Wetlands (34.6 ac total)

- POW (0.19 ac)
- PEM (10.3 ac)
- PSS (3.9 ac)
- PFO (20.3 ac)

Drainage Features

- Ditches
- Possible Buried Drainage Structures
- Culverts (n =9)
- Contour Line (1 ft)
- TWT Property Boundary (253.9 ac)

Cartographer: Michelle Herman | Date: 27 Jan. 2025 | Projection: NAD 1983 State Plane New York Central | References: NYS GIS Clearinghouse

Buxton Creek Wetland Delineation Summary Table

ID	Wetland Type	Cover Type (Edinger)	Acres	Linear Feet	Notes	Flow Regime
1	Culvert	-	-	130.3146475	12 in diameter metal. Parallel to Bell Rd, farm equipment field entrance over roadside ditch.	-
2	Culvert	-	-	38.20269462	Parallel to Bell Rd, farm equipment field entrance over roadside ditch.	-
3	Culvert	-	-	51.72682185	4 ft diameter plastic. Conveys flow from D-03 under Bell Rd to D-17. Culvert has perched outlet.	-
4	Culvert	-	-	30.52043225	Parallel to Bell Rd, farm equipment field entrance over roadside ditch.	-
5	Culvert	-	-	28.58133785	Concrete box culvert for Bell Rd Buxton Creek crossing (connects D-26 to D-29).	-
6	Culvert	-	-	30.98152304	Parallel to Bell Rd, farm equipment field entrance over roadside ditch.	-
7	Culvert	-	-	28.92057877	Parallel to Bell Rd, farm equipment field entrance over roadside ditch.	-
8	Culvert	-	-	22.83912032	Farm equipment field crossing over Buxton Creek.	-
9	Culvert	-	-	42.41565826	Under former railroad grade. Conveys drainage from field ditches and PFO to the North to old off-site farm pond. Periodically blocked due to beaver activity.	Intermittent
D-01	Ditch	Ditch / artificial intermittent stream	-	465.4188821	Off-site channel supplying water to D-03.	Intermittent
D-02	Ditch	Ditch / artificial intermittent stream	-	2818.27042	Major drainage channel flowing East from County Route 10 to D-03. Borders North edge of actively farmed Northwest field.	Perennial
D-03	Ditch	Ditch / artificial intermittent stream	-	2322.765529	Major drainage channel flowing South along East edge of actively farmed Northwest field, from north property boundary to Bell Rd culvert (#3).	Perennial
D-04	Ditch	Ditch / artificial intermittent stream	-	106.2683978	Headcut ditch in northeastern corner of Northwest field due to agricultural practices and sandy sediment. Flows to D-03.	Intermittent
D-05	Ditch	Ditch / artificial intermittent stream	-	3152.475105	Shallow, parallels South and West edge of main active agricultural field at base of shrubby hillside. Flows South-Southeast.	Intermittent
D-06	Ditch	Ditch / artificial intermittent stream	-	592.8794153	Diverts water into D-05 along base of shrubby hillside.	Intermittent
D-07	Ditch	Ditch / artificial intermittent stream	-	1480.074583	Deep ditch built for agricultural use at base of shrubby hillside. Flows South.	Intermittent
D-08	Ditch	Ditch / artificial intermittent stream	-	136.9611619	Off-site flow between constructed NRCS ponds. Flows North.	Intermittent
D-09	Ditch	Ditch / artificial intermittent stream	-	247.9030752	Off-site flow between constructed NRCS ponds. Flows North.	Intermittent
D-10	Ditch	Ditch / artificial intermittent stream	-	425.8679941	Off-site flow between constructed NRCS ponds. Flows South.	Intermittent
D-11	Ditch	Ditch / artificial intermittent stream	-	369.1696225	Off-site roadside ditch along Bell Rd.	Intermittent
D-12	Ditch	Ditch / artificial intermittent stream	-	1025.078934	Off-site ditch that conveys drainage from the southern constructed NRCS ponds and Bell Rd to ditch along former railroad grade.	Intermittent
D-13	Ditch	Ditch / artificial intermittent stream	-	3431.284044	Drainage along North side of former railroad grade, flows East to Culvert 9.	Intermittent
D-14	Ditch	Ditch / artificial intermittent stream	-	1940.255358	Shallow dentation in hedgerow along southern edge of active agricultural field, flows southeast to D-17.	Intermittent
D-15	Ditch	Ditch / artificial intermittent stream	-	1145.335903	Roadside ditch along Bell Rd., flows to D-17.	Intermittent

ID	Wetland Type	Cover Type (Edinger)	Acres	Linear Feet	Notes	Flow Regime
D-16	Ditch	Ditch / artificial intermittent stream	-	1108.480496	Roadside ditch along Bell Rd., flows to D-03.	Intermittent
D-17	Ditch	Ditch / artificial intermittent stream	-	1703.795425	Continuation of flow from D-03 south of Culvert 3. Surrounded by active agriculture along northern half, then enters large PFO area (PFO-03) that extends off-site.	Perennial
D-18	Ditch	Ditch / artificial intermittent stream	-	695.2261329	Drains PEM-10, flowing to D-17.	Intermittent
D-19	Ditch	Ditch / artificial intermittent stream	-	1273.458466	Shallow, borders edge of active agricultural field and large PFO area (PFO-03). Flows South.	Intermittent
D-20	Ditch	Ditch / artificial intermittent stream	-	105.0470232	Outflow from Culvert 9 to an old off-site farm pond now situated within a large wetland complex.	Intermittent
D-21	Ditch	Ditch / artificial intermittent stream	-	474.5929586	Drainage along north side of former railroad grade, flows West to Culvert 9 and off-site pond.	Intermittent
D-22	Ditch	Ditch / artificial intermittent stream	-	544.3595709	Roadside ditch along Bell Rd., flows to D-17.	Intermittent
D-23	Ditch	Ditch / artificial intermittent stream	-	613.937876	Roadside ditch along Bell Rd., flows to D-29.	Intermittent
D-24	Ditch	Ditch / artificial intermittent stream	-	539.3671454	Roadside ditch along Bell Rd., flows to D-03.	Intermittent
D-25	Ditch	Ditch / artificial intermittent stream	-	648.6342469	Roadside ditch along Bell Rd., flows to D-26.	Intermittent
D-26	Ditch	Ditch / artificial intermittent stream	-	574.5135748	Channelized portion of Buxton Creek North of Bell Rd., flows South.	Intermittent
D-27	Ditch	Ditch / artificial intermittent stream	-	316.3703625	Roadside ditch along Bell Rd., flows to D-26.	Intermittent
D-28	Ditch	Ditch / artificial intermittent stream	-	707.1833683	Roadside ditch along Bell Rd., flows to D-29.	Intermittent
D-29	Ditch	Ditch / artificial intermittent stream	-	3004.257341	Channelized portion of Buxton Creek between Bell Rd. culvert and former railroad grade bridge. Flows South.	Perennial
D-30	Ditch	Ditch / artificial intermittent stream	-	192.1854023	Buxton Creek outlet from site (former railroad grade bridge).	Intermittent
D-31	Ditch	Ditch / artificial intermittent stream	-	519.4386891	Drainage along north side of former railroad grade, flows East to Buxton Creek.	Intermittent
D-32	Ditch	Ditch / artificial intermittent stream	-	328.6165993	Drainage along north side of former railroad grade, flows West to Buxton Creek.	Intermittent
PEM-01	PEM	Shallow emergent	0.155486332741	-	Isolated wet spot, actively farmed. High clay content and yellowing crops.	Ephemeral
PEM-02	PEM	Shallow emergent	0.0635736434211	-	Isolated wet spot, actively farmed. High clay content and yellowing crops.	Ephemeral
PEM-03	PEM	Shallow emergent	3.00539096901	-	Active agricultural field and NRCS WRE area. Includes surface flow pathway to D-04/ D-03.	Intermittent
PEM-04	PEM	Shallow emergent	0.99669563645	-	Wet meadow that was cleared and farmed as recently as 1986. Now heavily invaded by Phalaris arundinacea, Typha and Phragmites australis. Surrounds a farm pond (POW-01).	Intermittent
PEM-	PEM	Shallow emergent	0.0263957190393	-	Isolated wet spot, actively farmed. High clay content and yellowing crops.	Ephemeral

ID	Wetland Type	Cover Type (Edinger)	Acres	Linear Feet	Notes	Flow Regime
05						
PEM-06	PEM	Shallow emergent	0.0299217996161	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and algal mats.	Ephemeral
PEM-07	PEM	Shallow emergent	0.360849858037	-	Possibly an old oxbow of Buxton Creek, long since reverted to wet meadow heavily influenced by agricultural activities. Invaded by Phalaris arundinacea, Typha and Phragmites australis.	Ephemeral
PEM-08	PEM	Shallow emergent	0.0730453577079	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and tractor ruts.	Ephemeral
PEM-09	PEM	Shallow emergent	0.0679971791052	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and tractor ruts. Aquatic plants present.	Ephemeral
PEM-10	PEM	Shallow emergent	1.29821296281	-	Wet meadow along north edge of PFO-03. Puddles and high clay content.	Intermittent
PEM-11	PEM	Shallow emergent	0.507070671651	-	Actively farmed. High clay content, deep tractor ruts and water pooling on surface.	Intermittent
PEM-12	PEM	Shallow emergent	0.0429482215485	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and algal mats.	Intermittent
PEM-13	PEM	Shallow emergent	0.188871062009	-	Wet finger off of PFO-03, actively farmed.	Ephemeral
PEM-14	PEM	Shallow emergent	0.157935194428	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and algal mats.	Ephemeral
PEM-15	PEM	Shallow emergent	0.23138196283	-	Isolated wet spot, actively farmed. High clay content, yellowing crops and algal mats.	Ephemeral
PEM-16	PEM	Shallow emergent	2.67885861756	-	Actively farmed portion of Buxton Creek floodplain. Relatively flat surface where water spreads out in a sheet-like pattern.	Intermittent
PEM-17	PEM	Shallow emergent	0.378167352028	-	South edge of active agricultural field. Relatively flat surface where water spreads out in a sheet-like pattern.	Intermittent
PFO-01	PFO	Red maple-hardwood swamp	0.380492255958	-	Surrounds D-03 channel at North end of property.	Intermittent
PFO-02	PFO	Red maple-hardwood swamp	3.05841701401	-	Buxton Creek riparian corridor North of Bell Rd.	Intermittent
PFO-03	PFO	Red maple-hardwood swamp	13.0903586863	-	Part of a larger wetland that extends off-site. Influenced by agricultural activities. 80% canopy coverage.	Intermittent
PFO-04	PFO	Red maple-hardwood swamp	2.61446896281	-	Riparian corridor of Buxton Creek at South end of property. Influenced by agricultural activities.	Intermittent
PFO-05	PFO	Red maple-hardwood swamp	1.15866367666	-	Surrounds D-02.	Intermittent
POW-01	Open Water - Pond	Farm pond / artificial pond	0.18525305258	-	Farm pond dug prior to 1955. Invaded with Typha and Phragmites australis.	Perennial
PSS-01	PSS	Scrub shrub	0.599608325373	-	Surrounds D-07, at the base of a steep hill.	Intermittent
PSS-02	PSS	Scrub shrub	1.6145384779	-	Surrounds D-03 and includes area next to PEM-04 that was cleared and farmed as recently as 1986.	Intermittent
PSS-03	PSS	Scrub shrub	0.293035802016	-	Surrounds D-17.	Intermittent
PSS-04	PSS	Scrub shrub	1.38297701026	-	Scattered shrubs along Buxton Creek.	Intermittent

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell rd (Reed) City/County: Oswego Sampling Date: 7/2/2024

Applicant/Owner: State: NY Sampling Point: SP1U

Investigator(s): EHF,HEF Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.2865205035 Long: -76.2272201610 Datum: WGS 84

Soil Map Unit Name Mandalin silt loam NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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,

Hydrophytic Vegetation Present?	Yes ____	No x	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No x	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample location taken within wetland,adjacent high bank creek (Buxton creek)

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
No signs of wetlands hydrology or drainages

VEGETATION – Use scientific names of plants. Sampling Point: SP1U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	30	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	30	x 5 =	150
Column Totals	30 (A)		150 (B)

Prevalence Index = B/A = 5.00

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 support 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Note: soy bean is growing very well, no sign of stress to the plants

SOIL Sampling Point: SP1U

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	7.5yr 5/2	100					Loamy/Clayey	
8-14	7.5yr 5/3	60	7.5yr 6/6	40			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- x Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ? Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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 Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell rd (Reed) City/County: Oswego Sampling Date: 7/2/2024

Applicant/Owner: State: NY Sampling Point: SP1W

Investigator(s): EHF,HEF Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.2866609518 Long: -76.2267705594 Datum: WGS 84

Soil Map Unit Name Mandalin silt loam NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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,

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample location taken within wetland,adjacent high bank creek (Buxton creek)

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- x FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes ____ No ____ Depth (inches): ____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
No H20 in the hole down 14 inches

VEGETATION – Use scientific names of plants. Sampling Point: SP1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant	Indicator Status
1. *Salix nigra*	30	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. *Viburnum lentago*	45	Yes	FAC
2. *Cornus racemosa*	15	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	

Herb Stratum (Plot size:)			
1. *Onoclea sensibilis*	5	No	FACW
2. *Eutrochium purpureum*	40	Yes	FAC
3. *Impatiens capensis*	40	Yes	FACW
4. *Viburnum dentatum*	5	No	FAC
5. *Lysimachia nummularia*	10	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (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	30	x 1 =	30
FACW species	55	x 2 =	110
FAC species	105	x 3 =	315
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals	190 (A)		455 (B)

Prevalence Index = B/A = 2.39

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide support 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

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

SOIL

Sampling Point: SP1W

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	7.5yr 5/2	100					Loamy/Clayey	
8-14	7.5yr 5/2	70	7.5yr 5/6	30			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- x Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ? Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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 Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/11/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP1U

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28654 Long: -76.23215 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ 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**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
15 ft wide vegetated area adjacent to drainage ditch from agricultural field (manufactured 10-15 ft ditch). Modified survey protocol due to topology and size of ditch, oval shaped vegetation sample area to not include plants from the ditch. Survey area sloped

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____ No X	Depth (inches):	
Water Table Present?	Yes X No ____	Depth (inches):	24
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches):	20

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
Hydrology was observed at a depth of 24 inch. Natural hydrology of the area has been modified by the agricultural ditch and likely drainage tile.

VEGETATION – Use scientific names of plants. Sampling Point: SP1U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Rosa multiflora*	15	Yes	FACU
2. *Fraxinus pennsylvanica*	3	No	FACW
3.			
4.			
5.			
6.			
7.			
	18	=Total Cover	
Herb Stratum (Plot size:)			
1. *Vitis riparia*	2	No	FAC
2. *Solidago canadensis*	20	Yes	FACU
3. *Thalictrum dioicum*	3	No	FACU
4. *Phalaris arundinacea*	30	Yes	FACW
5. *Glechoma hederacea*	1	No	FACU
6. *Alliaria petiolata*	10	No	FACU
7. *Impatiens capensis*	5	No	FACW
8.			
9.			
10.			
11.			
12.			
	71	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (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	38	x 2 =	76
FAC species	7	x 3 =	21
FACU species	49	x 4 =	196
UPL species	0	x 5 =	0
Column Totals:	94 (A)		293 (B)

Prevalence Index = B/A = 3.12

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Modified sampling protocol to not include vegetation in agricultural ditch. Survey area was in 15 foot vegetated area between the agricultural field growing soybeans and the agricultural drainage ditch. Tree cover was approximately 5%, shrub cover was approximately 20%, herbaceous cover was approximately 70%. Salix nigra which originated from the ditch was not included due to modified survey protocol.

SOIL

Sampling Point: SP1U

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
0-10	7.5YR 3/2	100						Clay loam
10-18	7.5YR 3/1	95	7.5YR 4/4	5				Clay loam
18-22	7.5YR 6/1	80	7.5YR 6/4	20				Clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/11/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP1W

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28654 Long: -76.23215 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ 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**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Drainage ditch from agricultural field, manufactured 10-15 ft ditch. Steep to moderately steep banks, 3ft deep. Modified survey protocol due to topology and size of ditch, oval shaped vegetation spample area, soils not examined.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Surface water present in ditch at time of survey. 2 in of water with slight flow.

VEGETATION – Use scientific names of plants. Sampling Point: SP1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	35	Yes	FAC
2. *Salix nigra*	60	Yes	OBL
3.			
4.			
5.			
6.			
7.			
	95	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Cornus racemosa*	20	Yes	FAC
2. *Fraxinus pennsylvanica*	2	No	FACW
3. *Lonicera tatarica*	1	No	FACU
4.			
5.			
6.			
7.			
	23	=Total Cover	
Herb Stratum (Plot size:)			
1. *Persicaria hydropiper*	60	Yes	OBL
2. *Impatiens capensis*	10	No	FACW
3. *Symphyotrichum lanceolatum*	5	No	FACW
4. *Equisetum pratense*	1	No	FACW
5. *Eutrochium purpureum*	5	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	81	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (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	120	x 1 =	120
FACW species	18	x 2 =	36
FAC species	60	x 3 =	180
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	199 (A)		340 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Modified survey protocol due to topology and size of ditch, oval shaped vegetation spample area.

SOIL

Sampling Point: SP1W

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soil sample was not taken in this manufactured ditch due to modified survey protocol.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/11/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP2U

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28694 Long: -76.23318 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

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

Are Vegetation X , Soil X , or Hydrology X 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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in agricultural field plowed and growing soybeans.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology was observed, area is a drained agricultural field. Drainage ditchs are present on two sides of the field and drainage tile is highly likely.

VEGETATION – Use scientific names of plants. Sampling Point: SP2U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	5	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5 (A)		25 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing soybeans. At time of observation plants were 1-3 inch tall.

SOIL

Sampling Point: SP2U

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
0-10	7.5YR 3/2	100						Clay loam
10-16	7.5YR 4/1	95	7.5YR 4/4	5				Clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

The soils were plowed prior to planting of soybeans.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/11/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP2W

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.2871 Long: -76.23327 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

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**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is 40 ft from plowed and planted agricultural soybean field. Sample point is in thick Phalaris arundinacea. Manmade pond is 100ft to the west.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- X 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)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- X Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 4 in
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 2 in

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Saturation is present and the water table is high. Presence of reduced iron was also observed.

VEGETATION – Use scientific names of plants. Sampling Point: SP2W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Phalaris arundinacea*	100	Yes	FACW
2. *Iris versicolor*	2	No	OBL
3. *Persicaria maculosa*	1	No	FAC
4. *Impatiens capensis*	1	No	FACW
5. *Scirpus cyperinus*	3	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	107 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	5	x 1 =	5
FACW species	101	x 2 =	202
FAC species	1	x 3 =	3
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	107 (A)		210 (B)

Prevalence Index = B/A = 1.96

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in thick Phalaris arundinacea

SOIL

Sampling Point: SP2W

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
0-3	7.5YR 3/2	100						Clay loam
3-14	7.5YR 2.5/1	85	7.5YR 5/3	5				Clay loam
	7.5YR 4/6	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/10/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP3U

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28753 Long: -76.23401 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification:

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

Are Vegetation X, Soil X, or Hydrology X 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**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** **No X**
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in agricultural field plowed and growing soybeans. Historic natural stream which was diverted likely flowed near sample point.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
There is an unusual sand layer in soil sample testing.

VEGETATION – Use scientific names of plants. Sampling Point: SP3U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 6)			
1. *Glycine max*	5	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5 (A)		25 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing soybeans. At time of observation plants were 1-3 inch tall.

SOIL

Sampling Point: SP3U

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	7.5YR 3/2	95	7.5YR 4/2	5				
8-12	7.5YR 6/4	90	7.5YR 7/6	10				sandy loam
12-16	7.5YR 4/1	70	5YR 4/6	30				clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Presence of 4 inch of a sandy loam was observed. Sand was reddish in color. The soils were plowed prior to planting of soybeans.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/102024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP3W

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 42.28743 Long: -76.23396 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

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**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is 15 ft from plowed and planted agricultural soybean field and 25 ft. from pond. Drainage towards ditch to the east of sample point.

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)
- X Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 16

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Water Table Present at 16 in after 10 minutes. Likely wetter earlier in growing season

VEGETATION – Use scientific names of plants. Sampling Point: SP3W

Tree Stratum (Plot size: 15)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Lonicera tatarica*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	
Herb Stratum (Plot size: 6)			
1. *Solidago gigantea*	20	No	FACW
2. *Phalaris arundinacea*	90	Yes	FACW
3. *Boehmeria cylindrica*	7	No	OBL
4. *Impatiens capensis*	1	No	FACW
5. *Asclepias syriaca*	3	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	121	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=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: 2 (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	7	x 1 =	7
FACW species	111	x 2 =	222
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	3	x 5 =	15
Column Totals:	126 (A)		264 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in thick Phalaris arundinacea, with some scattered patches of Solidago gigantea. Herbaceous layer has 100% areal coverage. 5% coverage in the shrub stratum. No trees or vines were present within survey area.

SOIL

Sampling Point: SP3W

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	7.5YR 3/2	100						organic roots, clay loam
6-9	2.5YR 5/1	95	7.5YR 4/6	5				oxidized root channels, clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- X Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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 Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/10/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP4U

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28694 Long: -76.23318 Datum: WGS84

Soil Map Unit Name: Lamson Very Fine Sandy Loam NWI classification:

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

Are Vegetation X, Soil X, or Hydrology X 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**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is 15 feet from agricultural field growing soybeans to the southwest, 20 ft from agricultural drainage ditch to the northeast.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
Adjacent to drainage ditch 4 ft below sample site

VEGETATION – Use scientific names of plants. Sampling Point: SP4U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix nigra*	10	Yes	OBL
2. *Pinus sylvestris*	10	Yes	UPL
3. *Prunus serotina*	10	Yes	FACU
4.			
5.			
6.			
7.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Lonicera tatarica*	20	Yes	FACU
2. *Cornus racemosa*	15	Yes	FAC
3. *Salix nigra*	10	No	OBL
4. *Prunus serotina*	5	No	FACU
5. *Carya ovata*	3	No	FACU
6. *Filipendula ulmaria*	3	No	FAC
7.			
	56	=Total Cover	
Herb Stratum (Plot size:)			
1. *Rubus pubescens*	3	No	FACW
2. *Solidago altissima*	45	Yes	FACU
3. *Solidago rugosa*	2	No	FAC
4. *Galium aparine*	20	Yes	FACU
5. *Toxicodendron radicans*	10	No	FAC
6. *Vitis riparia*	3	No	FAC
7. *Onoclea sensibilis*	1	No	FACW
8.			
9.			
10.			
11.			
12.			
	84	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	4	x 2 =	8
FAC species	33	x 3 =	99
FACU species	103	x 4 =	412
UPL species	10	x 5 =	50
Column Totals:	170 (A)		589 (B)

Prevalence Index = B/A = 3.46

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Approximately 80% herbaceous areal coverage, 50% shrub/sapling areal coverage, 25% tree areal coverage. Sample point is in area between agricultural soybean field and agricultural ditch.

SOIL

Sampling Point: SP4U

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
0-10	10YR 4/2	100						Sandy Loam
10-14	10YR 4/2	85	10YR 3/3	10				Sandy Loam, Occasional stone
	7.5YR 5/6	5						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

The soils were plowed prior to planting of soybeans.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/10/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP4W

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28898 Long: -76.23394 Datum: WGS84

Soil Map Unit Name: Lamson Very Fine Sandy Loam NWI classification: _____

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**	
Hydric Soil Present?	Yes X	No _____	**within a Wetland?**	**Yes** X **No** _____
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID:	_____

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland between ditch and upland forest sloping up. Upland inclusions. Very wet inclusions. Sample point is generally representative of the area. Site is historic natural streambed which existed prior to digging of agricultural ditch for farm fields.

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)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes X	No _____	Depth (inches): 14 in
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 12 in

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks:
Standing water in other areas of wetland but not at sample point. Water table was measured 5 mins after soil sample was taken.

VEGETATION – Use scientific names of plants. Sampling Point: SP4W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	40	Yes	FACW
2. *Acer rubrum*	25	Yes	FAC
3. *Pinus sylvestris*	5	No	UPL
4. *Ulmus americana*	3	No	FACW
5. *Populus tremuloides*	3	No	FACU
6.			
7.			
	76	=Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. *Carya ovata*	8	Yes	FACU
2. *Ulmus americana*	4	Yes	FACW
3. *Rhamnus cathartica*	2	No	FAC
4. *Crataegus monogyna*	2	No	FACU
5.			
6.			
7.			
	16	=Total Cover	

Herb Stratum (Plot size:)			
1. *Toxicodendron radicans*	60	Yes	FAC
2. *Veratrum viride*	5	No	FACW
3. *Polygonum pensylvanicum*	25	Yes	FACW
4. *Peltandra virginica*	2	No	OBL
5. *Rhamnus cathartica*	2	No	FAC
6. *Dryopteris intermedia*	1	No	FAC
7. *Onoclea sensibilis*	5	No	FACW
8. *Rubus idaeus*	1	No	FACU
9. *Rubus pubescens*	1	No	FACW
10. *Impatiens capensis*	1	No	FACW
11. *Fragaria vesca*	1	No	UPL
12.			
	104	=Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	84	x 2 =	168
FAC species	90	x 3 =	270
FACU species	14	x 4 =	56
UPL species	6	x 5 =	30
Column Totals:	196 (A)		526 (B)

Prevalence Index = B/A = 2.68

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Ash all appeared to be dead due to EAB. Sample location was 80% areal tree coverage, 60% shrub, 100% herbaceous.

SOIL

Sampling Point: SP4W

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
0-9	5YR 2.5/1	100						Clay loam/oxidized root channels
9-14	7.5YR 6/1	98	7.5YR 6/4	2				Reduced/depleted matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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 Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/11/24

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP5U

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28922 Long: -76.23875 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

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

Are Vegetation X , Soil X , 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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in agricultural field planted with soybeans. Edge of field was 25 ft away to the south/southeast and is dominated by grasses.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology was observed, area is a drained agricultural field. Drainage ditches are present on two sides of the field and drainage tile is highly likely.

VEGETATION – Use scientific names of plants. Sampling Point: SP5U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Glycine max*	5	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5	(A)	25 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing soybeans. At time of observation plants were 1-3 inch tall.

SOIL

Sampling Point: SP5U

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
0-9	7.5YR 3/2	100						Sandy Loam
9-14	7.5YR 5/4	70	7.5YR 4/6	30				Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Agricultural field was plowed prior to planting of soybeans.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 6/10/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP5W

Investigator(s): EHF, DJJ, KH, HF Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.28914 Long: -76.23888 Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification: No

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**		
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Drainage area, 2% slope from aspen grove in agricultural ditch 100 ft to the southeast.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- 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 ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
At the time of the survey hydrology was not present, given soils and hydrophytic vegetation it appears likely that hydrology was present earlier in the season.

VEGETATION – Use scientific names of plants. Sampling Point: SP5W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Salix discolor*	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10 =Total Cover		
Herb Stratum (Plot size:)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Juncus effusus*	10	No	OBL
3. *Eupatorium perfoliatum*	3	No	FACW
4. *Solidago rugosa*	3	No	FAC
5. *Solidago gigantea*	10	No	FACW
6. *Onoclea sensibilis*	1	No	FACW
7. *Rumex crispus*	2	No	FAC
8. *Erigeron strigosus*	2	No	FACU
9. *Equisetum arvense*	1	No	FAC
10. *Galium palustre*	3	No	OBL
11.			
12.			
	105 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (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	13	x 1 =	13
FACW species	94	x 2 =	188
FAC species	6	x 3 =	18
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	115 (A)		227 (B)

Prevalence Index = B/A = 1.97

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
100% herbacious coverage, 10% shrug coverage, 0% tree

SOIL

Sampling Point: SP5W

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
0-10	7.5YR 3/2	100						Sandy Loam
10-14	7.5YR 5/2	60	7.5YR 5/4	40				Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
At 14 inches dense sand.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-6-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.289615°N Long: -76.240900°W Datum: WGS84

Soil Map Unit Name: Lamson Very Fine Sandy Loam NWI classification: R5UBH Riverine

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

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

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**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans, site is 50 meters from adjacent manmade wetland. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	0.5
Water Table Present?	Yes X	No ____	Depth (inches):	0.5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Water was pooling in 30% of the sample area at 0.5 inches above the ground.

VEGETATION – Use scientific names of plants. Sampling Point: SP-6-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation plants were approximately 39 inch tall with 100% herbaceous cover. Soybean plants were green and lush.

SOIL

Sampling Point: SP-6-U

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
0-11	10YR 3/2	95	5YR 4/4	5			Loamy/Clayey	Silt Loam
11-20	7.5YR 4/6	100					Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event and standing water. No hydric soil indicators were observed. Sand was reddish in color and was not reduced.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-7-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.289612°N Long: -76.238230°W Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification:

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

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

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**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is finger of unplanted land in an agricultural field surrounded by soybeans. The finger connects to the adjacent wetland. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ____	Depth (inches): 1 inch	
Water Table Present?	Yes X No ____	Depth (inches): 1 inch	
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches): 0 inch	**Wetland Hydrology Present?** **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Water was pooling at a depth of 1 inches above the ground.

VEGETATION – Use scientific names of plants. Sampling Point: SP-7-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Cyperus esculentusCyperus esculentus*	75	Yes	
2. *Ludwigia alternifolia*	15	No	OBL
3. *Echinochloa crus-galli*	2	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	92	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	17 (A)		21 (B)

Prevalence Index = B/A = 1.24

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is finger of unplanted land in an agricultural field surrounded by soybeans. The finger connects to the adjacent wetland. Herbaceous cover is 90%.

SOIL

Sampling Point: SP-7-U

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
0-12	10YR 3/2	100					Loamy/Clayey	Silt Loam
12-20	10YR 5/3	100					Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event and standing water. The sand layer that is present on this site is reduced relative to other samplepoints, but not reduced to a chroma of 2. Sample

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-8-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.289615°N Long: -76.240900°W Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification:

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

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

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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

X Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Aquatic Fauna (B13)
X High Water Table (A2)	____ Marl Deposits (B15)	____ Hydrogen Sulfide Odor (C1)
X Saturation (A3)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Presence of Reduced Iron (C4)
____ Water Marks (B1)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Thin Muck Surface (C7)
____ Sediment Deposits (B2)	____ Other (Explain in Remarks)	
____ Drift Deposits (B3)		
____ Algal Mat or Crust (B4)		
____ Iron Deposits (B5)		
____ Inundation Visible on Aerial Imagery (B7)		
____ Sparsely Vegetated Concave Surface (B8)		

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
____ Drainage Patterns (B10)
____ Moss Trim Lines (B16)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Stunted or Stressed Plants (D1)
____ Geomorphic Position (D2)
____ Shallow Aquitard (D3)
____ Microtopographic Relief (D4)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 0.25 inch

Water Table Present? Yes X No ____ Depth (inches): 0.25 inch

Saturation Present? Yes X No ____ Depth (inches): 0 inch

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events.

VEGETATION – Use scientific names of plants. Sampling Point: SP-8-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100	(A)	500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation plants were approximately 44 inch tall with 100% herbaceous cover. Soybean plants were green and lush.

SOIL

Sampling Point: SP-8-U

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
0-10	10YR 3/1	100					Loamy/Clayey	Silt Loam
10-20	10YR 5/3	100					Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event. No hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-9-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.289518°N Long: -76.236720°W Datum: WGS84

Soil Map Unit Name: Lamson Very Fine Sandy Loam NWI classification:

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

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

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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	2
Water Table Present?	Yes X	No ____	Depth (inches):	2
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Water was pooling in the sample area at 2 inches above the ground. Water is slowly flowing from the general direction of SP-7-U

VEGETATION – Use scientific names of plants.

Sampling Point: SP-9-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	80	Yes	UPL
2. *Cyperus esculentus*	30	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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: 2 (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	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	80	x 5 =	400
Column Totals:	110 (A)		460 (B)

Prevalence Index = B/A = 4.18

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation soybean plants were approximately 34 inch tall. 100% herbaceous cover was present. Soybean plants were lighter in color and smaller than adjacent areas in the field.

SOIL

Sampling Point: SP-9-U

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
0-11	10YR 3/2	100					Loamy/Clayey	Silt loam
11-20	10YR 4/4	80	10YR 3/2	10				Silt/sand
	10YR 5/8	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event and standing water. No hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-10-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.289358°N Long: -76.235370°W Datum: WGS84

Soil Map Unit Name: Lamson Very Fine Sandy Loam NWI classification:

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

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

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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	0.5	
Water Table Present?	Yes X	No ____	Depth (inches):	0.5	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0	**Wetland Hydrology Present?** **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Water was pooling in 90% of the sample area at .5 inches above the ground. Water is slowly flowing toward headcuts to the east

VEGETATION – Use scientific names of plants. Sampling Point: SP-10-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	75	Yes	UPL
2. *Cyperus esculentus*	25	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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: 2 (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	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	75	x 5 =	375
Column Totals:	100 (A)		425 (B)

Prevalence Index = B/A = 4.25

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation soybean plants were approximately 39 inch tall. 100% herbaceous cover was present. Soybean plants were lighter in color and smaller than adjacent areas in the field and a sporadic growth pattern was observed. Patches with no soybeas and stunted growth.

SOIL

Sampling Point: SP-10-U

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
0-10	10YR 3/2	100					Sandy	Sandy Loam
10-20	10YR 5/3	70	10YR 4/2	30			Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event and standing water. No hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-11-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.288657°N Long: -76.237064°W Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification:

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

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

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**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Sample point is adjacent to forest area 250 ft to the west. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ____	Depth (inches):	1.5
Water Table Present?	Yes X No ____	Depth (inches):	1.5
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Standing water from rain is present at the sample location at a depth of .5 to 1.5 in above the ground.

VEGETATION – Use scientific names of plants. Sampling Point: SP-11-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation plants were approximately 41 inch tall with 100% herbaceous cover. Soybean plants were green and lush.

SOIL

Sampling Point: SP-11-U

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
0-10	10YR 4/2	90	7.5YR 4/6	10			Loamy/Clayey	Silt Loam
10-20	7.5YR 4/4	100					Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event and standing water. No hydric soil indicators were observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Bell Rd City/County: Oswego Sampling Date: 8/13/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP-12-U

Investigator(s): DJJ, KH Section, Township, Range: Penneville

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.286851°N Long: -76.235677°W Datum: WGS84

Soil Map Unit Name: Canandaigua Silt Loam NWI classification:

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

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

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**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point is in an agricultral field, planted with seed drilled soybeans. Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Sample point is adjacent to shrub area 100 ft to the west. Ditches border all sides of the field. Natural basins have been filled, leveled, and drained for agriculture. The surface of the ground has been sloped for drainage. Buried drainage structures are present.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 18
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
Rain from Hurricane Debby resulted in unusually wet hydrological conditions at the time of sampling. Wetland hydrology was not present prior to those rain events. Water filled test hole at a depth of 18 in 5 minutes.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-12-U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Sample point is in agricultural field plowed and growing seed drilled soybeans. At time of observation plants were approximately 43 inch tall with 100% herbaceous cover. Soybean plants were green and lush.

SOIL

Sampling Point: SP-12-U

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
0-11	10YR 3/4	95	10YR 4/6	5			Loamy/Clayey	Silt loam
11-20	5YR 5/3	60	2.5Y 5/6	40			Sandy	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Soils were highly saturated due to rain event. No hydric soil indicators were observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP1w

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.283663 Long: -76.227188 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Projection of land extending out of a wetland into an agriculture field. Soy fields are surrounded on three sides, persume drains south towards forested wetland area

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	<1	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches):	1	**Wetland Hydrology Present?** **Yes** X **No**

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

Remarks:
Ground is saturated with water in test hole up to the surface (12 inches deep). No signs of drainage or channel

VEGETATION – Use scientific names of plants. Sampling Point: SP1w

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Cornus amomum*	2	No	FACW
2. *Fraxinus pennsylvanica*	1	No	FACW
3. *Salix discolor*	1	No	FACW
4.			
5.			
6.			
7.			
	4 =Total Cover		
Herb Stratum (Plot size:)			
1. *Phalaris arundinacea*	75	Yes	FACW
2. *Typha latifolia*	10	No	OBL
3. *Solidago gigantea*	20	No	FACW
4. *Symphyotrichum puniceum*	1	No	OBL
5. *Eutrochium purpureum*	7	No	FAC
6. *Lythrum salicaria*	2	No	OBL
7. *Equisetum arvense*	1	No	FAC
8. *Onoclea sensibilis*	1	No	FACW
9.			
10.			
11.			
12.			
	117 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	13	x 1 =	13
FACW species	100	x 2 =	200
FAC species	8	x 3 =	24
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	121 (A)		237 (B)

Prevalence Index = B/A = 1.96

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
100% herbaceous cover. One large dead ash on the outer perimeter. Floor littered with dead cattail

SOIL

Sampling Point: SP1w

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
0-5	7.5yr 2.5/2	95	7.5yr 5/6	5			Loamy/Clayey	
5-12	7.5yr 6/2	80	7.5yr 6/6	20			Loamy/Clayey	Silt/ Clay/ Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Oxidized root channels in top layer

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP1u

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Non Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.283757 Long: -76.227421 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N , Soil N , or Hydrology N 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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture field, Soy beans are tall and thriving. No understory of growth. Approximently 25ft from wetland. Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No signs of hydrology, no drainage pattern, no saturated soils

VEGETATION – Use scientific names of plants. Sampling Point: SP1u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy is tall and thriving. No additional veg growing

SOIL

Sampling Point: SP1u

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
0-9	7.5yr 3/2	100					Loamy/Clayey	
9-15	7.5yr 5/4	55	7.5yr 5/2	40			Loamy/Clayey	
			7.5yr 3/2	5				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

non-hydric soils, soils are very close to being hydric but are more upland

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP1Aw

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.283858 Long: -76.22772 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Isolated wet patch surrounded by a agriculture field planted with Soy Beans. Adjacent forested wetland on three sides of patch. Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	4
Water Table Present?	Yes	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches):	1

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:
Standing water approximently 4inches deep. Saturation occuring on top of clay layer

VEGETATION – Use scientific names of plants.

Sampling Point: SP1Aw

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 6)			
1. *Echinochloa crus-galli*	90	Yes	FAC
2. *Glycine max*	5	No	UPL
3. *Ranunculus sceleratus*	5	No	OBL
4. *Eleocharis ssp.*	1	No	OBL
5. *Ludwigia palustris*	3	No	OBL
6. *Cyperus esculentus*	1	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	105 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	9	x 1 =	9
FACW species	1	x 2 =	2
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	105 (A)		306 (B)

Prevalence Index = B/A = 2.91

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
No soy in sample point but surrounded by soy 10 more ft out.

SOIL

Sampling Point: SP1Aw

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
0-10	5yr 4/1	90	5yr 4/6	10			Loamy/Clayey	Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Top soil missing. B horizon is clay

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP2w

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.282259 Long: -76.224934 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Isolated wet area surrounded by soy beans, adjacent to a forested wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 4		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** X **No**

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

Remarks:
Saturated soils with approximently 4 inches of standing water. Hydrology is restricted to surface with no water in the hole

VEGETATION – Use scientific names of plants. Sampling Point: SP2w

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Echinochloa crus-galli*	100	Yes	FAC
2. *Ranunculus sceleratus*	2	No	OBL
3. *Eleocharis ssp.*	1	No	OBL
4. *Ludwigia palustris*	1	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	104 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	4	x 1 =	4
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	104 (A)		304 (B)

Prevalence Index = B/A = 2.92

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
No Soy present in isolated wet area.

SOIL

Sampling Point: SP2w

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
0-10	7.5yr 4/1	95	7.5yr 5/6	5			Loamy/Clayey	Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Missing top soil. Hydric clay layer at surface

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP2u

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.282205 Long: -76.225096 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes	No X	**within a Wetland?**	**Yes**	**No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture field planted with Soybeans

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No signs of hydrology, no drainage pattern

VEGETATION – Use scientific names of plants. Sampling Point: SP2u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
100% soy bean cover. No vegetative understory

SOIL

Sampling Point: SP2u

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	7.5yr 4/2	100					Loamy/Clayey	
8-14	7.5yr 5/6	60	7.5yr 5/3	40			Loamy/Clayey	Silt loam texture

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
No oxidized root channels

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP2Aw

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.282058 Long: -76.225366 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: PFO1E

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Forested wetland system with 1-foot-deep skitter/ tractor roots approximately seven feet away from test hole. Approximately 40 ft from soy bean field

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	<1
Water Table Present?	Yes	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:
Standing water in tractor ruts, 20 inches down. No water in test hole

VEGETATION – Use scientific names of plants. Sampling Point: SP2Aw

Tree Stratum (Plot size: 15)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2. *Acer saccharinum*	40	Yes	FACW
3. *Acer rubrum*	45	Yes	FAC
4. *Quercus macrocarpa*	8	No	FACU
5. *Carya ovata*	3	No	FACU
6.			
7.			
	96	=Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 6)			
1. *Fraxinus pennsylvanica*	30	Yes	FACW
2. *Impatiens capensis*	15	No	FACW
3. *Symphyotrichum lanceolatum*	25	Yes	FACW
4. *Carex intumescens*	15	No	FACW
5. *Lysimachia nummularia*	20	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105	=Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (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	145	x 2 =	290
FAC species	45	x 3 =	135
FACU species	11	x 4 =	44
UPL species	0	x 5 =	0
Column Totals:	201 (A)		469 (B)

Prevalence Index = B/A = 2.33

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Dead ash DBH ranges from 12-16 and some approximately 24 inches. Canopy coverage ranges from 70-100%. Ground littered with leaves.

SOIL

Sampling Point: SP2Aw

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	7.5yr 4/1	100						
8-16	7.5yr 4/1	70	7.5yr 5/6	20				
			7.5yr 2.5/1	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Oxidized root Channels

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP3w

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.280742 Long: -76.223139 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: PEM5E

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Forested wetland with open emergent in center. Soy bean field to the southwest and a disabled railroad track 125ft to the southeast

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 0	
Water Table Present?	Yes	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	**Wetland Hydrology Present?** **Yes** X **No**

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

Remarks:
Standing water at surface or in shallow depressions in the forested wetland. No drainage pattern

VEGETATION – Use scientific names of plants. Sampling Point: SP3w

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	75	Yes	FAC
2. *Ulmus americana*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
	85	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Fraxinus pennsylvanica*	5	Yes	FACW
2. *Cornus amomum*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size:)			
1. *Symphyotrichum lanceolatum*	50	Yes	FACW
2. *Eutrochium purpureum*	5	No	FAC
3. *Eupatorium perfoliatum*	5	No	FACW
4. *Lysimachia nummularia*	60	Yes	FACW
5. *Ulmus americana*	5	No	FACW
6. *Penthorum sedoides*	1	No	OBL
7. *Carex intumescens*	1	No	FACW
8. *Juncus effusus*	2	No	OBL
9. *Lycopus americanus*	3	No	OBL
10.			
11.			
12.			
	132	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (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	6	x 1 =	6
FACW species	141	x 2 =	282
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	227 (A)		528 (B)

Prevalence Index = B/A = 2.33

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Large dead ash trees with DBH ranging from 8-12 inches. Mostly shaded with 90% canopy coverage

SOIL

Sampling Point: SP3w

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	7.5yr 2.5/1	100						
8-14	7.5yr 5/1	80	7.5yr 5/6	20				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

No water in hole, no drainage pattern. Oxidized root channels presant

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP3u

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.280829 Long: -76.223363 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes	No X	**within a Wetland?**	**Yes**	**No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Agricultural field planted with Soybeans. Forested wetland adjacent to sample point. Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology, no drainage patterns

VEGETATION – Use scientific names of plants. Sampling Point: SP3u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy beans tall and thriving

SOIL

Sampling Point: SP3u

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	7.5yr 4/2	100						
8-14	7.5yr 5/6	60	7.5yr 5/1	40				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
No hydrolic indicators

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP4w

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): non Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.282382 Long: -76.222737 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: PEM5E

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

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

Are Vegetation N, Soil N, or Hydrology N 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**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
There is a slow meandering stream channel 15ft from test hole. The channel is 4-6ft wide and varying depth up to two. Adjacent on the other side is a soy bean field

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X 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)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes X	No	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:
Saturated soils starting at 6inches deep. Water in test hold 10 inches high

VEGETATION – Use scientific names of plants.

Sampling Point: SP4w

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Cornus amomum*			FACW
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Phalaris arundinacea*	100	Yes	FACW
2. *Lythrum salicaria*	3	No	OBL
3. *Xanthium strumarium*	3	No	FAC
4. *Persicaria virginiana*	3	No	FAC
5. *Echinochloa crus-galli*	1	No	FAC
6. *Glyceria striata*	1	No	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	111	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=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	4	x 1 =	4
FACW species	100	x 2 =	200
FAC species	7	x 3 =	21
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	111 (A)		225 (B)

Prevalence Index = B/A = 2.03

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Herbaceous dominated. Reed canary littered the ground. Large dead ash on outskirts of plot

SOIL

Sampling Point: SP4w

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
0-10	7.5yr 2.5/1	100					Loamy/Clayey	
10-16	7.5yr 4/1	85	7.5yr 4/4	15			Sandy	Sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Oxidized root channels presant.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/22/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP4u

Investigator(s): E. Frantz, K. Hastings Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.282311 Long: -76.222974 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N , Soil N , or Hydrology N 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**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Agricultural field planted with Soybeans. Wetland with stream channel adjacent to sample point. Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology, no drainage patterns

VEGETATION – Use scientific names of plants. Sampling Point: SP4u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy beans tall and thriving

SOIL

Sampling Point: SP4u

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
0-9	7.5yr 4/2	100						
9-14	7.5yr 5/6	60	7.5yr 5/1	40				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
No hydrolic indicators

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP5w

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.286002 Long: -76.226516 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Wet area between a road to the north, soybean field to the south and a drainage ditch to the east.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	<1	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches):	1	**Wetland Hydrology Present?** **Yes** X **No**

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

Remarks:
Standing water less than 1 inch. Oxidized root channels present

VEGETATION – Use scientific names of plants. Sampling Point: SP5w

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. Peach-Leaf Willow	1	No	
2.			
3.			
4.			
5.			
6.			
7.			
	1	=Total Cover	
Herb Stratum (Plot size:)			
1. *Typha angustifolia*	75	Yes	OBL
2. *Phragmites australis*	8	No	FACW
3. *Lythrum salicaria*	1	No	OBL
4. *Lysimachia nummularia*	30	Yes	FACW
5. *Leersia oryzoides*	15	No	OBL
6. *Iris versicolor*	3	No	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	132	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (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	94	x 1 =	94
FACW species	38	x 2 =	76
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	132 (A)		170 (B)

Prevalence Index = B/A = 1.29

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Dead typha littering the ground. 100% herbaceous

SOIL

Sampling Point: SP5w

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 5/1	90	10yr 4/4	10			Loamy/Clayey	
8-14	10yr 5/1	85	10yr 4/4	10			Loamy/Clayey	
			10yr 7/8	5				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP5u

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.285834 Long: -76.226519 Datum: WSG84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Agricultural field that was recently harvest. Previously had tall, thriving soybeans. Sample point is between two possible wetlands (SP5w & SP5Aw). Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil. Only criteria met is hydric soil.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology present, no signs of drainage

VEGETATION – Use scientific names of plants. Sampling Point: SP5u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy was harvested leaving just 2inch stalks from the ground

SOIL

Sampling Point: SP5u

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 5/2	100					Loamy/Clayey	
8-14	10yr 5/2	70	10yr 5/2	30			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: Thr Wetland Trust State: NY Sampling Point: SP5Aw

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.285687 Long: -76.226448 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X	**No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Isolated wet area surrounded by Soybeans in an agriculture field. Recently harvested with deep tractor ruts approximently 6 inches deep surrounding wet area.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X 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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 5		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** X **No**

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

Remarks:
Standing water approximently 5 inches from ground. Saturation is present. Small amount of algal mats no bigger than an inch each. No oxidized roots

VEGETATION – Use scientific names of plants. Sampling Point: SP5Aw

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Echinochloa crus-galli*	100	Yes	FAC
2. *Cyperus esculentus*	1	No	FACW
3. *Eleocharis ssp.*	2	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	103	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=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	2	x 1 =	2
FACW species	1	x 2 =	2
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	103 (A)		304 (B)

Prevalence Index = B/A = 2.95

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
No soy in plot

SOIL

Sampling Point: SP5Aw

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
0-10	10yr 5/1	100					Loamy/Clayey	
10-16	10yr 6/1	95	10yr 6/6	5			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

Top soil appears to be missing in plot.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP6u

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.286590 Long: -76.224749 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**	
Hydric Soil Present?	Yes	No X	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
Plowed grass area on the edge of a Soybean field bordering the road.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology, no drainage pattern

VEGETATION – Use scientific names of plants. Sampling Point: SP6u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1. *Poa annua*	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
No soy planted. Grass approximately two inches from ground. Grass species is not 100% verified

SOIL

Sampling Point: SP6u

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
0-11	10yr 3/2						Loamy/Clayey	silt loam
11-20	10yr 5/2	50	10yr 5/3	50			Loamy/Clayey	silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:
Soils are 50/50 hydric/ upland

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP7w?

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): valley Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.284620 Long: -76.222953 Datum: WGS84

Soil Map Unit Name: Madalin silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**
Hydric Soil Present?	Yes ?	No	**within a Wetland?** **Yes** **No** ?
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Wet area at the beginning of a drainage system that heads towards the hedgerow to the west. In an agricultural field planted with soy that was recently harvested.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- X 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)
- Marl Deposits (B15)
- 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)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No Depth (inches): <1

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

Saturation Present? Yes X No Depth (inches): 6
(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No**

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

Remarks:
Drainage pattern, saturation, surface water and few small algal mats are present.

VEGETATION – Use scientific names of plants. Sampling Point: SP7w?

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Glycine max*	100	Yes	UPL
2. *Ranunculus sceleratus*	1	No	OBL
3. *Echinochloa crus-galli*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	111 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	111 (A)		531 (B)

Prevalence Index = B/A = 4.78

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy was harvested leaving just 2inch stalks from the ground.

SOIL

Sampling Point: SP7w?

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 5/2	95	10yr 4/6	5			Loamy/Clayey	
8-16	10yr 5/3	60	10yr 4/6	40			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ? Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: South Bell Road City/County: Schroeppel/ Oswego Sampling Date: 10/24/2024

Applicant/Owner: The Wetland Trust State: NY Sampling Point: SP8u

Investigator(s): K. Hastings, D. Johnston Jordan Section, Township, Range:

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 43.284563 Long: -76.230611 Datum: WGS84

Soil Map Unit Name: Rhinebeck silt loam NWI classification: None

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

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

Are Vegetation N, Soil N, or Hydrology N 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**		
Hydric Soil Present?	Yes	No	**within a Wetland?**	**Yes**	**No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Sample point in the middle of a large agricultural field that was recently harvest. Previously had tall, thriving soybeans. Agriculture field gets harvested and plowed annually for the past 70+ years resulting in disturbed vegetation and soil.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ 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:
No hydrology, no signs of drainage

VEGETATION – Use scientific names of plants.

Sampling Point: SP8u

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 6)			
1. *Glycine max*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Soy was harvested leaving just 2inch stalks from the ground and soy remains littering the ground

SOIL

Sampling Point: SP8u

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
0-9	10yr 3/2	100					Loamy/Clayey	
9-20	7.5yr 4/6	90	10r 4/6	5			Loamy/Clayey	Sandy loam
			10r 3/1	5				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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** ___

Remarks:

Appendix D.

Category	Common Name	Scientific Name	Conservation Status	Indicator Status	Native	Buxton Creek	Lower Caughdenoy Creek	Oneida River	Fish Creek	Upper Caughdenoy Creek	Sixmile Creek
Amphibian	American toad	*Anaxyrus americanus*	S5 G5: secure in NYS and globally	-	Yes	✓	✓	✓	✓	✓	
Amphibian	gray treefrog	*Dryophytes versicolor*	S5 G5: secure in NYS and globally	-	Yes	✓	✓	✓		✓	
Amphibian	northern green frog	*Lithobates clamitans melanc*	S5 G5: secure in NYS and globally	-	Yes		✓	✓	✓	✓	
Amphibian	northern leopard frog	*Lithobates pipiens*	S5 G5: secure in NYS and globally	-	Yes		✓		✓	✓	
Amphibian	wood frog	*Lithobates sylvaticus*	S5 G5: secure in NYS and globally	-	Yes			✓			
Bird	red-winged blackbird	*Agelaius phoeniceus*	S5B G5: secure (breeding) in NYS and globally	-	Yes		✓	✓	✓		
Bird	wood duck	*Aix sponsa*	S5 G5: secure in NYS and globally	-	Yes		✓				
Bird	mallard	*Anas platyrhynchos*	S5 G5: secure in NYS and globally	-	Yes			✓			✓
Bird	American pipit	*Anthus rubescens*	Least concern	-	Yes			✓		✓	✓
Bird	sandhill crane	*Antigone canadensis*	S1B G5: critically imperiled (breeding) in NYS and secure globally	-	Yes			✓			
Bird	great blue heron	*Ardea herodias*	S5 G5: secure in NYS and globally	-	Yes			✓			
Bird	tufted titmouse	*Baeolophus bicolor*	S5 G5: secure in NYS and globally	-	Yes			✓		✓	
Bird	Canada goose	*Branta canadensis*	S5 G5: secure in NYS and globally	-	Yes		✓	✓		✓	✓
Bird	red-tailed hawk	*Buteo jamaicensis*	S5 G5: secure in NYS and globally	-	Yes			✓			✓
Bird	green heron	*Butorides virescens*	S5 G5: secure in NYS and globally	-	Yes			✓			
Bird	northern cardinal	*Cardinalis cardinalis*	S5 G5: secure in NYS and globally	-	Yes		✓	✓	✓		
Bird	turkey vulture	*Cathartes aura*	S4B G5: apparently secure (breeding) in NYS and secure globally	-	Yes			✓			✓
Bird	killdeer	*Charadrius vociferus*	S5 G5: secure in NYS and globally	-	Yes	✓	✓	✓		✓	
Bird	northern harrier	*Circus hudsonius*	(NYS Threatened Species) S3B, S3N G5: vulnerable (breeding/non-breeding) in NYS and secure globally	-	Yes				✓		✓
Bird	northern flicker	*Colaptes auratus*	S5 G5: secure in NYS and globally	-	Yes			✓			
Bird	American crow	*Corvus brachyrhynchos*	S5 G5: secure in NYS and globally	-	Yes			✓	✓		
Bird	blue jay	*Cyanocitta cristata*	S5 G5: secure in NYS and globally	-	Yes		✓	✓			
Bird	pileated woodpecker	*Dryocopus pileatus*	S5 G5: secure in NYS and globally	-	Yes		✓				
Bird	gray catbird	*Dumetella carolinensis*	S5B G5: secure (breeding) in NYS and globally	-	Yes	✓	✓	✓			
Bird	willow flycatcher	*Empidonax traillii*	S5B G5: secure (breeding) in NYS and globally	-	Yes	✓					
Bird	rusty blackbird	*Euphagus carolinus*	(NYS High Priority Species of Greatest Conservation Need) S2B G4: imperiled (breeding) in NYS and apparently secure globally	-	Yes			✓			
Bird	common yellowthroat	*Geothlypis trichas*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓	✓		
Bird	bald eagle	*Haliaeetus leucocephalus*	(NYS Threatened Species) S2S3B, S2N G5: imperiled/vulnerable (breeding) and imperiled (non-breeding) in NYS, secure globally	-	Yes			✓		✓	✓
Bird	barn swallow	*Hirundo rustica*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓			
Bird	wood thrush	*Hylocichla mustelina*	S5B G4: secure (breeding) in NYS and apparently secure globally	-	Yes			✓	✓		
Bird	Baltimore oriole	*Icterus galbula*	S5B G5: secure (breeding) in NYS and globally	-	Yes	✓		✓			
Bird	belted kingfisher	*Megaceryle alcyon*	S5 G5: secure in NYS and globally	-	Yes		✓				
Bird	red-bellied woodpecker	*Melanerpes carolinus*	S5 G5: secure in NYS and globally	-	Yes			✓			
Bird	wild turkey	*Meleagris gallopavo*	S5 G5: secure in NYS and globally	-	Yes		✓	✓	✓		
Bird	song sparrow	*Melospiza melodia*	S5B G5: secure (breeding) in NYS and globally	-	Yes		✓	✓	✓		
Bird	great crested flycatcher	*Myiarchus crinitus*	S5B G5: secure (breeding) in NYS and globally	-	Yes		✓	✓	✓		
Bird	osprey	*Pandion haliaetus*	(NYS Species of Special Concern) S4B G5: apparently secure (breeding) in NYS and secure globally	-	Yes			✓			
Bird	rose-breasted grosbeak	*Pheucticus ludovicianus*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓	✓		
Bird	eastern towhee	*Pipilo erythrophthalmus*	S5B G5: secure (breeding) in NYS and globally	-	Yes		✓				

Bird	American woodcock	*Scolopax minor*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓			
Bird	yellow warbler	*Setophaga petechia*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓	✓		
Bird	eastern bluebird	*Sialia sialis*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓			
Bird	American goldfinch	*Spinus tristis*	S5 G5: secure in NYS and globally	-	Yes		✓	✓	✓		
Bird	European starling	*Sturnus vulgaris*	SNA G5: not applicable in NYS and secure globally	-	No				✓		
Bird	solitary sandpiper	*Tringa solitaria*	Least concern	-	Yes			✓			
Bird	American robin	*Turdus migratorius*	S5B G5: secure (breeding) in NYS and globally	-	Yes		✓	✓	✓		
Bird	eastern kingbird	*Tyrannus tyrannus*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓			
Bird	warbling vireo	*Vireo gilvus*	S5B G5: secure (breeding) in NYS and globally	-	Yes			✓	✓		
Bird	mourning dove	*Zenaida macroura*	S5 G5: secure in NYS and globally	-	Yes			✓			
Fish	brown bullhead	*Ameiurus nebulosus*	Least concern	-	Yes		✓				
Fungi	morel	*Morchella esculenta*	-	-	Yes		✓				
Mammal	coyote	*Canis latrans*	Least concern	-	Yes		✓		✓		
Mammal	North American beaver	*Castor canadensis*	Least concern	-	Yes		✓				
Mammal	North American porcupine	*Erethizon dorsatum*	Least concern	-	Yes						✓
Mammal	white-tailed deer	*Odocoileus virginianus*	Least concern	-	Yes	✓	✓	✓	✓	✓	✓
Mammal	raccoon	*Procyon lotor*	Least concern	-	Yes		✓		✓	✓	
Mammal	eastern cottontail	*Sylvilagus floridanus*	Least concern	-	Yes			✓	✓		
Plant	box elder	*Acer negundo*	-	FAC	Yes						✓
Plant	red maple	*Acer rubrum*	-	FAC	Yes		✓	✓	✓	✓	✓
Plant	silver maple	*Acer saccharinum*	-	FACW	Yes		✓	✓			
Plant	sugar maple	*Acer saccharum*	-	FACU	Yes				✓		
Plant	common yarrow	*Achillea millefolium*	-	FACU	Yes		✓				
Plant	sweet flag	*Acorus calamus*	-	OBL	No		✓	✓			
Plant	common agrimony	*Agrimonia gryposepala*	-	FACU	Yes			✓		✓	
Plant	Rhode Island bentgrass	*Agrostis capillaris*	-	FAC	No					✓	
Plant	redtop	*Agrostis gigantea*	-	FACW	No	✓	✓			✓	✓
Plant	creeping bent	*Agrostis stolonifera*	-	FACW	No	✓				✓	
Plant	American water plantain	*Alisma subcordatum*	-	OBL	Yes		✓				
Plant	speckled alder	*Alnus incana*	-	FACW	Yes			✓			
Plant	New York fern	*Amauropelta noveboracensis*	-	FAC	Yes			✓			
Plant	common ragweed	*Ambrosia artemisiifolia*	-	FACU	Yes			✓		✓	
Plant	downy serviceberry	*Amelanchier arborea*	-	FACU	Yes		✓				
Plant	hog peanut	*Amphicarpaea bracteata*	-	FAC	Yes		✓				
Plant	Canada anemone	*Anemone canadensis*	-	FACW	Yes		✓				
Plant	sweet vernal grass	*Anthoxanthum odoratum*	-	FACU	No	✓	✓	✓		✓	
Plant	Indian hemp	*Apocynum cannabinum*	-	FAC	Yes			✓		✓	
Plant	swamp milkweed	*Asclepias incarnata*	-	OBL	Yes			✓			
Plant	common milkweed	*Asclepias syriaca*	-	UPL	Yes		✓	✓			✓
Plant	yellow birch	*Betula alleghaniensis*	-	FAC	Yes				✓		
Plant	gray birch	*Betula populifolia*	-	FAC	Yes					✓	
Plant	nodding beggar ticks	*Bidens cernua*	-	OBL	Yes					✓	
Plant	devil's beggar ticks	*Bidens frondosa*	-	FACW	Yes			✓		✓	
Plant	hairy brome	*Bromus commutatus*	-	-	No			✓			
Plant	smooth brome	*Bromus inermis*	-	-	No		✓	✓			
Plant	common woodland sedge	*Carex blanda*	-	FAC	Yes		✓				
Plant	bristly sedge	*Carex comosa*	-	OBL	Yes			✓			
Plant	fringed sedge	*Carex crinita*	-	OBL	Yes		✓	✓			
Plant	large yellow sedge	*Carex flava*	-	OBL	Yes			✓			
Plant	graceful sedge	*Carex gracillima*	-	FACU	Yes			✓			
Plant	lake sedge	*Carex lacustris*	-	OBL	Yes						✓
Plant	bladder sedge	*Carex intumescens*	-	FACW	Yes		✓	✓		✓	
Plant	hop sedge	*Carex lupulina*	-	OBL	Yes		✓	✓			
Plant	sallow sedge	*Carex lurida*	-	OBL	Yes			✓			
Plant	troublesome sedge	*Carex molesta*	-	FAC	Yes			✓			
Plant	cyperus-like sedge	*Carex pseudocyperus*	-	OBL	Yes					✓	
Plant	broom sedge	*Carex scoparia*	-	FACW	Yes		✓	✓			✓
Plant	awl-fruited sedge	*Carex stipata*	-	OBL	Yes			✓		✓	
Plant	tussock sedge	*Carex stricta*	-	OBL	Yes				✓	✓	✓
Plant	fox sedge	*Carex vulpinoidea*	-	OBL	Yes		✓	✓		✓	✓
Plant	ironwood	*Carpinus caroliniana*	-	FAC	Yes				✓	✓	
Plant	bitternut hickory	*Carya cordiformis*	-	FAC	Yes		✓			✓	
Plant	shagbark hickory	*Carya ovata*	-	FACU	Yes		✓	✓	✓	✓	
Plant	buttonbush	*Cephalanthus occidentalis*	-	OBL	Yes		✓				
Plant	white turtle head	*Chelone glabra*	-	OBL	Yes			✓		✓	
Plant	lamb's quarters	*Chenopodium album*	-	FACU	No					✓	
Plant	enchanter's nightshade	*Circaea canadensis*	-	FACU	Yes		✓	✓			
Plant	bull thistle	*Cirsium vulgare*	-	FACU	No		✓				

Plant	silky dogwood	*Cornus amomum*	-	FACW	Yes	✓	✓	✓	✓	✓	✓
Plant	gray dogwood	*Cornus racemosa*	-	FAC	Yes		✓	✓	✓		✓
Plant	red-osier dogwood	*Cornus sericea*	-	FACW	Yes						✓
Plant	hawthorn	*Crataegus sp.*	-	-	-		✓				✓
Plank	common yellow nut sedge	*Cyperus esculentus*	-	FACW	Yes			✓		✓	
Plant	false yellow nut sedge	*Cyperus strigosus*	-	FACW	Yes			✓		✓	
Plant	orchard grass	*Dactylis glomerata*	-	FACU	No	✓				✓	
Plant	wild carrot	*Daucus carota*	-	UPL	No		✓				
Plant	water willow	*Decodon verticillatus*	-	OBL	Yes			✓			✓
Plant	tufted hair grass	*Deschampsia cespitosa*	-	-	Yes					✓	
Plant	digit grass	*Digitaria eriantha*	-	-	No		✓				
Plant	smooth crab grass	*Digitaria ischaemum*	-	FACU	No			✓			
Plant	tall flat-topped white aster	*Doellingeria umbellata*	-	FACW	Yes					✓	
Plant	common wood fern	*Dryopteris intermedia*	-	FAC	Yes		✓				✓
Plant	autumn olive	*Elaeagnus umbellata*	-	-	No		✓				
Plant	blunt spike rush	*Eleocharis obtusa*	-	OBL	Yes		✓			✓	✓
Plant	fringed wilowherb	*Epilobium ciliatum*	-	FACW	Yes					✓	
Plant	purpleleaf willowherb	*Epilobium coloratum*	-	OBL	Yes		✓	✓		✓	
Plant	field horsestail	*Equisetum arvense*	-	FAC	Yes				✓	✓	✓
Plant	scouringrush horsetail	*Equisetum hyemale*	-	FAC	Yes	✓			✓		
Plant	annual daisy fleabane	*Erigeron annuus*	-	FACU	Yes			✓			
Plant	small daisy fleabane	*Erigeron strigosus*	-	FACU	Yes			✓			
Plant	yellow trout lily	*Erythronium americanum*	-	-	Yes		✓		✓		
Plant	boneset	*Eupatorium perfoliatum*	-	FACW	Yes			✓		✓	✓
Plant	common flat-topped goldenrod	*Euthamia graminifolia*	-	FAC	Yes					✓	
Plant	spotted Joe Pye weed	*Eutrochium maculatum*	-	OBL	Yes	✓					
Plant	American beech	*Fagus grandifolia*	-	FACU	Yes				✓	✓	
Plant	common wild strawberry	*Fragaria virginiana*	-	FACU	Yes		✓			✓	✓
Plant	glossy buckthorn	*Frangula alnus*	-	FAC	No		✓				
Plant	white ash	*Fraxinus americana*	-	FACU	Yes		✓				✓
Plant	green ash	*Fraxinus pennsylvanica*	-	FACW	Yes	✓	✓	✓	✓	✓	✓
Plant	hedge bedstraw	*Galium album*	-	FACU	Yes	✓		✓		✓	
Plant	common marsh bedstraw	*Galium palustre*	-	OBL	Yes		✓			✓	
Plant	yellow avens	*Geum aleppicum*	-	FAC	Yes		✓	✓			
Plant	white avens	*Geum canadense*	-	FAC	Yes			✓			✓
Plant	town avens	*Geum urbanum*	-	-	No		✓	✓			
Plant	American manna grass	*Glyceria maxima*	-	OBL	No			✓		✓	
Plant	fowl manna grass	*Glyceria striata*	-	OBL	Yes		✓	✓		✓	
Plant	soybean	*Glycine max*	-	-	-	✓	✓	✓	✓	✓	✓
Plant	marsh cubweed	*Gnaphalium uliginosum*	-	FAC	No			✓			
Plant	dame's rocket	*Hesperis matronalis*	-	FACU	No	✓					
Plant	common frogbit	*Hydrocharis morsus-ranae*	-	OBL	No			✓			
Plant	Eurasian live forever	*Hylotelephium telephium*	-	-	No				✓		
Plant	St. John's wort	*Hypericum sp.*	-	-	-						✓
Plant	spotted jewelweed	*Impatiens capensis*	-	FACW	Yes	✓	✓	✓		✓	
Plant	blue flag	*Iris versicolor*	-	OBL	Yes		✓				
Plant	soft rush	*Juncus effusus*	-	OBL	Yes	✓	✓	✓	✓	✓	✓
Plant	path rush	*Juncus tenuis*	-	FAC	Yes			✓			✓
Plant	rice cut grass	Leersia oryzoides	-	OBL	Yes					✓	✓
Plant	spicebush	*Lindera benzoin*	-	FACW	Yes		✓	✓			
Plant	tulip poplar	*Liriodendron tulipifera*	-	FACU	Yes	✓				✓	
Plant	Indian tobacco	*Lobelia inflata*	-	FACU	Yes			✓			
Plant	great blue lobelia	*Lobelia siphilitica*	-	FACW	Yes						✓
Plant	tall rye grass	*Lolium arundinace*	-	FACU	No			✓			
Plant	Japanese honeysuckle	*Lonicera japonica*	-	FACU	No		✓				
Plant	honeysuckle	*Lonicera spp.*	-	-	No	✓	✓	✓	✓	✓	✓
Plant	Tatarian honeysuckle	*Lonicera tatarica*	-	FACU	No		✓	✓			✓
Plant	water purslane	*Ludwigia palustris*	-	OBL	Yes	✓		✓		✓	
Plant	water whorehound	*Lycopus americanus*	-	OBL	Yes			✓		✓	
Plant	moneywort	*Lysimachia nummularia*	-	FACW	No	✓	✓		✓	✓	
Plant	purple loosestrife	*Lythrum salicaria*	-	OBL	No	✓	✓	✓	✓	✓	
Plant	Canada mayflower	*Maianthemum canadense*	-	FACU	Yes				✓		
Plant	ostrich fern	*Matteuccia struthiopteris*	-	FAC	Yes			✓			
Plant	white sweet clover	*Melilotus albus*	-	FACU	No						✓
Plant	Allegheny monkey flower	*Mimulus ringens*	-	OBL	Yes					✓	
Plant	blackgum	*Nyssa sylvatica*	-	FAC	Yes			✓			
Plant	sensitive fern	*Onoclea sensibilis*	-	FACW	Yes	✓	✓	✓	✓	✓	✓
Plant	royal fern	*Osmunda regalis*	-	OBL	Yes			✓			
Plant	cinnamon fern	*Osmundastrum cinnamome*	-	FACW	Yes			✓			
Plant	yellow wood sorrel	*Oxalis dillenii*	-	FACU	Yes		✓			✓	
Plant	fall panic grass	*Panicum dichotomiflorum*	-	FACW	Yes						✓
Plant	Virginia creeper	*Parthenocissus quinquefolia*	-	FACU	Yes		✓	✓			
Plant	green arrow arum	*Peltandra virginica*	-	OBL	Yes		✓				
Plant	water pepper	*persicaria hydropiper*	-	OBL	No					✓	

Plant	lady's thumb	*Persicaria maculosa*	-	FAC	No			✓			
Plant	arrow-leaved tearthumb	*Persicaria sagittata*	-	OBL	Yes			✓			
Plant	jumpseed	*Persicaria virginiana*	-	FAC	Yes		✓	✓		✓	
Plant	reed canary grass	*Phalaris arundinacea*	-	FACW	No	✓	✓	✓	✓	✓	✓
Plant	common Timothy	*Phleum pratense*	-	FACU	No		✓			✓	
Plant	common reed	*Phragmites australis*	-	FACW	No	✓	✓	✓			
Plant	pokeweed	*Phytolacca americana*	-	FACU	Yes			✓			
Plant	Norway spruce	*Picea abies*	-	-	No		✓	✓	✓		
Plant	red spruce	*Picea rubens*	-	FACU	Yes		✓				
Plant	white pine	*Pinus strobus*	-	FACU	Yes		✓		✓		
Plant	English plantain	*Plantago lanceolata*	-	FACU	No	✓	✓		✓	✓	
Plant	common plantain	*Plantago major*	-	FACU	No	✓			✓	✓	✓
Plant	northern tubercled orchid	*Platanthera flava*	-	FACW	Yes			✓			
Plant	annual blue grass	*Poa annua*	-	FACU	No				✓		
Plant	wood bluegrass	*Poa nemoralias*	-	FACU	No			✓			
Plant	common Kentucky blue grass	*Poa pratensis*	-	FACU	No		✓			✓	✓
Plant	mayapple	*Podophyllum peltatum*	-	FACU	Yes			✓	✓		
Plant	eastern cottonwood	*Populus deltoides*	-	FAC	Yes		✓		✓		
Plant	quaking aspen	*Populus tremuloides*	-	FACU	Yes	✓	✓	✓	✓	✓	✓
Plant	oldfield cinquefoil	*Potentilla simplex*	-	FACU	Yes		✓				
Plant	Eurasian selfheal	*prunella vulgaris*	-	FAC	No					✓	
Plant	pin cherry	*Prunus pensylvanica*	-	FACU	Yes		✓				
Plant	black cherry	*Prunus serotina*	-	FACU	Yes		✓	✓	✓	✓	
Plant	bracken fern	*Pteridium aquilinum*	-	FACU	Yes			✓			
Plant	white oak	*Quercus alba*	-	FACU	Yes		✓				
Plant	red oak	*Quercus rubra*	-	FACU	Yes		✓	✓			
Plant	tall buttercup	*Ranunculus acris*	-	FAC	No	✓	✓			✓	
Plant	creeping buttercup	*Ranunculus repens*	-	FAC	No					✓	
Plant	cursed crowfoot	*Ranunculus sceleratus*	-	OBL	Yes	✓			✓		
Plant	Japanese knotweed	*Reynoutria japonica*	-	FACU	No				✓		
Plant	alder buckthorn	*Rhamnus alnifolia*	-	OBL	Yes		✓				
Plant	buckthorn	*Rhamnus cathartica*	-	FAC	No		✓	✓		✓	✓
Plant	staghorn sumac	*Rhus typhina*	-	-	Yes		✓				
Plant	multiflora rose	*Rosa multiflora*	-	FACU	No	✓	✓	✓	✓	✓	✓
Plant	swamp rose	*Rosa palustris*	-	OBL	Yes				✓		✓
Plant	common blackberry	*Rubus allegheniensis*	-	FACU	Yes		✓	✓			
Plant	swamp dewberry	*Rubus hispidus*	-	FACW	Yes			✓			
Plant	red raspberry	*Rubus ideaus*	-	FACU	No		✓	✓			
Plant	dwarf raspberry	*Rubus pubescens*	-	FACW	Yes			✓			
Plant	sheep sorrel	*Rumex acetosella*	-	FACU	No			✓			
Plant	curly dock	*Rumex crispus*	-	FAC	No	✓	✓	✓		✓	✓
Plant	broad-leaved dock	*Rumex obtusifolius*	-	FAC	No		✓			✓	
Plant	swamp dock	*Rumex verticillatus*	-	OBL	Yes			✓			
Plant	Bebb's willow	*Salix bebbiana*	-	FACW	Yes			✓			
Plant	pussy willow	*Salix discolor*	-	FACW	Yes		✓	✓	✓		
Plant	black willlow	*Salix nigra*	-	OBL	Yes		✓				
Plant	basket willow	*Salix purpurea*	-	FACW	No			✓			
Plant	common elderberry	*Sambucus nigra*	-	FACW	Yes				✓		
Plant	lizard's tail	*Saururus cernuus*	-	OBL	Yes		✓				
Plant	soft-stemmed bulrush	*Schoenoplectus tabernaemo*	-	OBL	Yes			✓			
Plant	dark-green bulrush	*Scirpus atrovirens*	-	OBL	Yes		✓	✓			
Plant	woolgrass	*Scirpus cyperinus*	-	OBL	Yes		✓		✓	✓	✓
Plant	mad dog skullcap	*Scutellaria lateriflora*	-	OBL	Yes			✓			
Plant	horse nettle	*Solanum carolinense*	-	FACU	Yes					✓	
Plant	bitter-sweet nightshade	*Solanum dulcamara*	-	FAC	No		✓	✓			
Plant	tall goldenrod	*Solidago altissima*	-	FACU	Yes		✓				✓
Plant	Canada goldenrod	*Solidago canadensis*	-	FACU	Yes	✓		✓		✓	
Plant	swamp goldenrod	*Solidago gigantea*	-	FACW	Yes		✓			✓	✓
Plant	common wrinkle-leaved goldenr	*Solidago rugosa*	-	FAC	Yes	✓	✓	✓		✓	✓
Plant	spiny-leaved sow thistle	*Sonchus asper*	-	FACU	No			✓	✓		
Plant	green-fruited bur-reed	*Sparganium chlorocarpum*	-	OBL	Yes			✓			
Plant	grass-leaved stitchwort	*Stellaria graminea*	-	UPL	No					✓	
Plant	white panicle aster	*Symphyotrichum lanceolatur*	-	FACW	Yes			✓		✓	✓
Plant	calico aster	*Symphyotrichum lateriflorun*	-	FAC	Yes		✓			✓	
Plant	new england aster	*Symphyotrichum novae-angl*	-	FACW	Yes						✓
Plant	purple-stemmed aster	*Symphyotrichum puniceum*	-	OBL	Yes	✓		✓		✓	✓
Plant	skunk cabbage	*Symplocarpus foetidus*	-	OBL	Yes				✓		
Plant	common dandelion	*Taraxacum officinale*	-	FACU	No	✓	✓	✓	✓	✓	✓
Plant	marsh fern	*Thelypteris palustris*	-	FACW	Yes		✓				
Plant	American basswood	*Tilia americana*	-	FACU	Yes			✓			
Plant	poison ivy	*Toxicodendron radicans*	-	FAC	Yes	✓	✓	✓	✓	✓	✓
Plant	red clover	*Trifolium pratense*	-	FACU	No	✓			✓	✓	✓
Plant	white clover	*Trifolium repens*	-	FACU	No	✓	✓			✓	✓
Plant	red trillium	*Trillium erectum*	-	FACU	Yes				✓		

Plant	white trillium	*Trillium grandiflorum*	-	-	Yes				✓		
Plant	eastern hemlock	*Tsuga canadensis*	-	FACU	Yes				✓	✓	
Plant	tower mustard	*Turritis glabra*	-	UPL	No			✓			
Plant	coltsfoot	*Tussilago farfara*	-	FACU	No		✓				
Plant	narrowleaf cattail	*Typha angustifolia*	-	OBL	No			✓			✓
Plant	hybrid cattail	*Typha glauca*	-	OBL	No	✓	✓	✓			
Plant	wide-leaved cattail	*Typha latifolia*	-	OBL	Yes		✓	✓			
Plant	cattail	*Typha sp.*	-	OBL	-	✓	✓	✓	✓	✓	✓
Plant	American elm	*Ulmus americana*	-	FACW	Yes		✓	✓	✓		✓
Plant	false hellebore	*Veratrum viride*	-	FACW	Yes				✓		
Plant	moth mullein	*Verbascum blattaria*	-	FACU	No			✓			
Plant	blue vervain	*Verbena hastata*	-	FACW	Yes	✓	✓			✓	
Plant	smooth arrowwood	*Viburnum dentatum*	-	FAC	Yes	✓	✓	✓		✓	✓
Plant	nannyberry	*Viburnum lentago*	-	FAC	Yes		✓	✓		✓	✓
Plant	tufted vetch	*Vicia cracca*	-	-	No			✓			✓
Plant	common blue violet	*Viola sororia*	-	FAC	Yes		✓				
Plant	riverbank grape	*Vitis riparia*	-	FAC	Yes		✓	✓			✓
Reptile	painted turtle	*Chrysemys picta*	S5 G5: secure in NYS and globally	-	Yes		✓				
Reptile	eastern garter snake	*Thamnophis sirtalis sirtalis*	S5 G5: secure in NYS and globally	-	Yes		✓	✓		✓	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 04/11/2025 15:39:33 UTC
Project code: 2025-0082147
Project Name: Micron Stream and Wetland Mitigation

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Micron Stream and Wetland Mitigation'

Dear Kirsten Gerhardt:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 11, 2025, for “Micron Stream and Wetland Mitigation” (here forward, Project). This project has been assigned Project Code 2025-0082147 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical

habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Indiana Bat (*Myotis sodalis*)	Endangered	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New York Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Bog Buck Moth *Hemileuca maia menyanthevora (=H. iroquois)* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Micron Stream and Wetland Mitigation

2. Description

The following description was provided for the project 'Micron Stream and Wetland Mitigation':

> This is a stream and wetland mitigation project in which restoration will occur across six sites. On average, one site will be constructed per year, making the construction period a total of six years approximately. All six sites are located in Hastings or Schroeppel in Oswego County, NY. Two of the sites will undergo stream restoration, one for a degraded portion of Buxton Creek, the other for a degraded portion of Fish Creek. Here, the stream restoration will be integrated with wetland restoration to create a functioning stream/wetland complex. The remaining four sites will be for wetland restoration only.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.29530445,-76.2730783955508,14z

QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

   Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

   Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

   No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

   No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

   Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

   Yes

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

   No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

   No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

9. Is the lead federal action agency the Natural Resources Conservation Service?

   No

10. Will the proposed project involve the use of herbicide where listed species are present?

    Yes

11. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

    No

12. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

    Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

    No

13. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind turbines)?

    Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

    No

14. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

    For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

    No

15. Will the proposed project affect wetlands where listed species are present?

    This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

    Yes

16. Will the proposed project activities (including upland project activities) occur within 0.125 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

    Yes

17. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

    Yes

18. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

    No

19. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

    No

20. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

    No

21. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

    Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

    No

22. Will the proposed project involve perennial stream loss, in a stream of tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

    No

23. Will the proposed project involve blasting where listed species may be present?

    No

24. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

    No

25. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

    Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

    Yes

26. Will the proposed project impact streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

    Yes

27. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

    No

28. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

    Yes

29. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

    No

30. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

    Automatically answered
    No

31. [Semantic] Does the project intersect the Indiana bat AOI?

    Automatically answered
    Yes

32. Is the action area within 0.5 mile radius of any known hibernacula (caves or mines) openings or underground features?

    Note: If you are unsure, contact the appropriate Ecological Services Field Office before continuing through the key.

    No

33. Are trees present within the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter), answer "Yes". If you are unsure, answer “Yes.” Or refer to Appendix A of the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines for definitions and an assessment form that will assist you in determining if suitable habitat is present within your project's action area. Suitable summer habitat for Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat

    Yes

34. Is the action area within known occupied Indiana bat habitat? Known occupied Indiana bat habitat includes established conservation buffers (10-mile buffer around Phase 1 or Phase 2 hibernacula, 5-mile buffer around Phase 3 or Phase 4 hibernacula; 5-mile buffer around Indiana bat captures or detections; 2.5-mile buffer around known roosts).

    Yes

35. [Semantic] Does the project intersect the Indiana bat critical habitat?

    Automatically answered
    No

36. [Semantic] Does the project intersect the candy darter critical habitat?

    Automatically answered
    No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

    Automatically answered
    No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

    Automatically answered
    No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

    Automatically answered
    No

40. Do you have any other documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?

   .1

2. Approximately how many total acres of disturbance are within the disturbance/ construction limits of the proposed project?

   500

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

   Active soybean fields and man-made agricultural drainages. Some existing wetlands of degraded quality that will ultimately be rehabilitated.

IPAC USER CONTACT INFORMATION

Agency: The Wetland Trust, Inc.
Name: Kirsten Gerhardt
Address: 4729 State Route 414
City: Burdett
State: NY
Zip: 14818
Email kirsten.gerhardt@gmail.com
Phone: 3028242336

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 04/11/2025 15:07:39 UTC
Project Code: 2025-0082147
Project Name: Micron Stream and Wetland Mitigation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

PROJECT SUMMARY

Project Code: 2025-0082147
Project Name: Micron Stream and Wetland Mitigation
Project Type: Restoration / Enhancement - Wetland
Project Description: This is a stream and wetland mitigation project in which restoration will occur across six sites. On average, one site will be constructed per year, making the construction period a total of six years approximately. All six sites are located in Hastings or Schroeppel in Oswego County, NY. Two of the sites will undergo stream restoration, one for a degraded portion of Buxton Creek, the other for a degraded portion of Fish Creek. Here, the stream restoration will be integrated with wetland restoration to create a functioning stream/wetland complex. The remaining four sites will be for wetland restoration only.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.29530445,-76.2730783955508,14z

Counties: Oswego County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Bog Buck Moth *Hemileuca maia menyanthevora (=H. iroquois)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8023	Endangered
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: The Wetland Trust, Inc.
Name: Kirsten Gerhardt
Address: 4729 State Route 414
City: Burdett
State: NY
Zip: 14818
Email kirsten.gerhardt@gmail.com
Phone: 3028242336

Appendix E.

Buxton Creek
Invasive Species Management Plan (ISMP)

Oswego County, New York

PREPARED BY:

The Wetland Trust, Inc.

4729 State Route 414

Burdett, NY 14818

www.thewetlandtrust.org

March 2025

1. Introduction

The Wetland Trust, Inc. (TWT), as part of the Permittee Responsible Mitigation (PRM) package on behalf of Micron NY Semiconductor Manufacturing, LLC, is proposing to develop stream and wetland mitigation acres/credits at their Buxton Creek Site in the Town of Schroeppel, Oswego County, New York. The Mitigation Plan (Plan) at Buxton Creek will contribute toward the fulfillment of required stream and wetland mitigation for impacts associated with the Micron Semiconductor Fabrication Campus project (Proposed Development) in the town of Clay, Onondaga County, New York. This Plan will incorporate wetland Re-establishment, Rehabilitation, Enhancement, Preservation, and stream restoration which involves disturbance to soil during grading activities. As part of the Performance Standards for this Mitigation Plan, invasive species-specific standards must be met. The following is the Invasive Species Management Plan (ISMP) for this Site. It contains the practices and procedures TWT proposes to implement to control the presence and spread of invasive species.

This ISMP will improve ecological outcomes by using a combination of mechanical, biological, cultural, and chemical controls to manage invasive species while minimizing environmental disturbance. By prioritizing early detection, habitat restoration, and targeted interventions, this ISMP is designed to reduce reliance on herbicides, lower the risk of non-target impacts, and promote the long-term success of native vegetation. This adaptive approach enhances wetland resilience, supports biodiversity, and ensures compliance with mitigation performance standards in a sustainable and cost-effective manner.

1.1 Purpose and Goal

- **Adaptive Management Framework:** This plan operates under an adaptive management strategy, ensuring that invasive species control efforts are adjusted based on monitoring results, site conditions, and evolving regulatory guidance. Preventing the establishment or spread of invasive species at this Site relies upon:
    - Thorough baseline information data collection,
    - Avoiding and/or treating existing invasive species populations,
    - Incorporating construction techniques into the Plan that minimize conditions that are favorable for invasive species colonization, and
    - Implementing thorough monitoring and maintenance practices throughout the life of the Project and beyond.
- **Long-Term Ecological Success:** The presence of invasive plant species can degrade wetland function by outcompeting native vegetation, altering soil and water chemistry, and reducing habitat quality for wildlife. This ISMP aims to restore and sustain native plant communities using minimal environmental disturbance construction techniques per the Mitigation Plan.
- The goal of this ISMP is to minimize presence and prevent expansion of invasive species within the Mitigation Site not only during the monitoring period, but in perpetuity, as TWT is the long-term owner and steward. Invasive species control will be considered successful only if invasive species are kept at or below the threshold outlined in Section 6 of the Mitigation Plan for the work areas and 0% net increase in invasive species found elsewhere at the Site is realized. Annual monitoring will help determine whether goals are being met. If it is determined the Site is not on track with its goals, TWT will submit

a revised Management Plan and implement Adaptive Management strategies that are approved by USACE and NYSDEC.

1.2 Regulatory Compliance

This ISMP seeks to meet specific performance standards set by the USACE and NYSDEC as a condition of permit approval. These include thresholds for native plant diversity, invasive species control, and hydrological function.

Invasive species targeted by this ISMP are based on those regulated by NYS Regulation 6 NYCRR Part 575 List of Prohibited and Regulated Invasive Plants, developed by the New York Invasive Species Council and New York Department of Environmental Conservation (NYSDEC) and any others identified by NYSDEC or USACE.

2. Identification

Four key invasive plant species regulated by NYCRR Part 575 were identified at the Site during baseline data collection. Key invasive plants include purple loosestrife (*Lythrum salicaria*), reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), and cattail (*Typha* spp.). These species are highly competitive, forming dense monocultures that outcompete native vegetation, diminish biodiversity, and disrupt wetland functionality. These species are found in most wetland areas on-site and adjacent on wetlands, affecting over 7 acres at the Buxton Creek Site at the time of data collection. These species, their common characteristics and their typical locations are provided in Table 2-1 below. Additional invasive plant species have the potential of occurring at the site, particularly in the post-construction and long-term monitoring phase of this plan. These additional species may require treatment if they meet action thresholds outlined in **Section 6-1**, in which case they will be included in future versions of this plan and treated.

Table 2-1. Invasive Species at the Buxton Creek Site 2024

Species	Common Characteristics	Photo ID	Typical Location
Common Reed (Phragmites australis)	A perennial grass that can grow over 15 feet tall, forming dense stands with hollow stems and blue-green leaves up to 20 inches long. It spreads through seeds, rhizomes, and stolons, often outcompeting native vegetation in wetlands.		Tidal and non-tidal marshes, lakes, swales, and backwater areas of rivers, and streams

Reed Canary Grass (Phalaris arundinacea)	A tall, perennial grass that grows 2 to 6 feet high, with rough, flat leaves and dense flower clusters that turn beige as they mature. It thrives in wetlands and spreads aggressively through seeds and rhizomes, forming dense stands that outcompete native vegetation.		Wet habitats such as wetlands, moist meadows, and riparian areas
Cattail (Typha spp.)	Tall, perennial wetland plants characterized by their long, narrow, sword-like leaves and distinctive brown, cylindrical flower spikes. They thrive in shallow waters of marshes, ponds, and lakes, spreading through both wind-dispersed seeds and extensive rhizome networks, often forming dense stands that can outcompete other vegetation.		Wetland habitats, including marshes, river and stream banks, pond edges, lakes, ditches, and reservoirs
Purple Loosestrife (Lythrum salicaria)	An erect, branching perennial native to Europe, Asia, and northern Africa, characterized by dense, woody rootstocks that can produce multiple stems, lance-shaped leaves arranged oppositely or alternately, and showy purple flowers with 5-7 petals clustered on tall spikes. This invasive species thrives in wetlands and moist soils, rapidly displacing native vegetation and disrupting local ecosystems.		Wetland habitats, including marshes, pond and lakeshores, stream and riverbanks, and ditches. Also spreads in upland soils, allowing it to spread into meadows and pastures.

3. Pre-Construction Phase

3.1 Baseline Data Collection

Baseline data collection will identify existing invasive species communities within the mitigation site. This process will involve field surveys using GIS mapping, orthoimagery using drones, and photographic documentation to establish the extent and density of invasive species populations. Baseline surveys will include mapping of invasive species distribution with percentage cover estimates. The data collected will be used to inform the site preparation and treatment strategies outlined in later sections of this ISMP. See **Figures 8-1 through 8-4** in **Section 8** for baseline invasive species maps.

3.2 Site Preparation & Prevention Measures

Prior to construction, invasive species control measures will be implemented to prevent the spread and establishment of problematic species. These measures will include:

- **Pre-Treatment of Invasives**: Identified invasive species populations will be treated before ground disturbance begins. This may include manual removal, herbicide application, or smothering techniques depending on the species and infestation severity.
- **Equipment Cleaning Protocols:** Any construction equipment arriving on-site will be inspected and cleaned to remove soil, plant material, or seeds that may introduce invasive species.

4. Construction Phase

To minimize the introduction and spread of invasive species during construction activities, the following best practices will be implemented:

- **Minimize Disturbance**: Clearing and grading activities will be restricted to designated project areas, reducing soil disturbance that can facilitate invasive species establishment.
- **Erosion and Sediment Control**: Use of weed-free erosion control materials, such as straw mulch, biodegradable mats, and hydroseeding with native plant mixes, will prevent soil erosion while avoiding the introduction of invasive species.
- **Construction Site Hygiene**: All machinery and equipment will be cleaned before entering and leaving the site, particularly when working in or near known invasive species populations.
- **Hydrology Management**: The project aims to restore natural hydrological conditions where feasible, as proper hydrology can prevent the establishment of invasive wetland species.
- **Native Plant Seeding**: Following ground disturbance, native plants will be seeded and planted in treated areas to prevent re-colonization by invasive species.

5. Post-Construction Phase

5.1 Monitoring for Early Detection

To ensure invasive species control measures remain effective, post-construction monitoring will be conducted. Monitoring efforts will include:

- **GPS Mapping and Photo Documentation**: Recording any changes in invasive species distribution.
- **Upstream and Adjacent Area Inspections**: Identifying potential new sources of invasive species propagules.
- **Disturbance Event Tracking**: Observing site conditions after events like flooding or drought, which may encourage invasive species spread.

5.2 Long-Term Monitoring & Adaptive Management

- Yearly Assessments: Evaluate treatment effectiveness and native vegetation recovery.

- Implement additional treatment as needed.
- Adjust Control Strategies: Based on monitoring results, refine methods to reduce reliance on chemical treatments.

6. Treatment Thresholds and Control Strategies

6.1 Treatment Thresholds

Control measures will be implemented when specific action thresholds are met, ensuring timely intervention to prevent invasive species from undermining mitigation success. The following triggers initiate management actions:

1. **Invasive Species Coverage Threshold**
    - If invasive species exceed **10% of total vegetative relative cover** within mitigation areas, management efforts (e.g., mechanical, chemical, or biological control) are required.
    - Annual monitoring data, including vegetation surveys and aerial imagery, will be used to determine exceedance.
2. **Failure to Meet Native Vegetation Performance Standards**
    - If native plant cover falls below required thresholds (typically **85% native cover** or a minimum diversity standard set in the mitigation permit), corrective action is necessary.
    - This includes replanting, selective herbicide application, or modifying site conditions to support native species.
3. **Encroachment of Invasives into Priority Habitat Areas**
    - If invasive species are detected in areas designated for high-value habitat (e.g., scrub-shrub wetlands, emergent wetlands, etc) treatment measures will be implemented to prevent establishment.
4. **New Invasive Species Detection**
    - Any newly introduced invasive species not previously recorded on-site will trigger an immediate assessment and control response to prevent spread.
5. **Regulatory Non-Compliance or Agency Notification**
    - If annual monitoring reports indicate performance standards are not being met or if USACE/NYSDEC identifies deficiencies, corrective action is required to maintain compliance.

By adhering to these action thresholds, this ISMP ensures that invasive species are proactively managed, wetland functions are maintained, and regulatory compliance is achieved.

6.2 Summary of Treatment Timing & Methods

A combination of mechanical, cultural, biological, and chemical control methods will be used depending on species, infestation size, and site conditions.

Table 6-1. Treatment Timing & Methods Summary Table					
Species	**Best Treatment Time**	**Mechanical**	**Chemical**	**Biological**	**Cultural**
Phragmites	Late summer - fall	Mowing, cutting, hand-pulling	Spot glyphosate or equiv. (if needed)	None approved for use in the US	Planting Natives for Competition
Reed Canary Grass	Spring & Fall	Mowing, cutting, hand-pulling	Spot glyphosate or equiv. (if needed)	None available	Planting Natives for Competition, Prescribed burn
Cattails	Mid-late summer	Mowing, cutting, hand-pulling	Spot glyphosate or equiv. (if needed)	Muskrat/waterfowl	Planting Natives for Competition
Purple Loosestrife	Mid-late summer	Mowing, cutting, hand-pulling	Spot glyphosate or equiv. (if needed)	Loosestrife beetles	Planting Natives for Competition

6.2.1 *Phragmites australis* (Common Reed)

Control Approach:

Best Time for Treatment: Late summer to early fall (when carbohydrates are translocating to rhizomes).

1. Mechanical Control:
    - Cutting & Flooding: Cutting stems at water level during late summer combined with water level manipulation can drown rhizomes.
    - Smothering: Small patches can be covered with black plastic or heavy mulch to prevent regrowth.
2. Chemical Control: *(Only if necessary, as a last resort in sensitive areas)*
    - Glyphosate-basedand/or Imazapyr-Based application (spot treatment):
        - Apply to standing Phragmites in late summer/early fall using backpack sprayers, drones or wicking methods to minimize non-target impacts.
    - Follow-up with mechanical removal of dead stalks in the winter.
3. Cultural & Biological Control:

- Promote competition by seeding native sedges, rushes, and forbs.
- Biological control species may be utilized for targeted control.

6.2.2 *Phalaris arundinacea* (Reed Canary Grass)

Control Approach:

Best Time for Treatment: Early spring (before seed set) and late fall (targeting rhizomes).

1. Mechanical Control:
    - Mowing in early spring and late summer to deplete energy reserves.
    - Hand-pulling small infestations before seed set.
    - Covering with tarps or thick mulch to shade out new shoots.
2. Chemical Control: *(Selective use in dense monocultures if needed)*
    - Glyphosate application in fall when nutrients are moving into rhizomes.
    - Use wiping techniques instead of spraying to reduce non-target impact.
3. Cultural & Biological Control:
    - Planting native sedges & rushes to outcompete Phalaris.
    - Prescribed fire in late spring can reduce seed production.

6.2.3 *Typha spp.* (Cattails)

Control Approach:

Best Time for Treatment: Mid-to-late summer when plants are transporting nutrients downward.

1. Mechanical Control:
    - Cut stems below water level to drown rhizomes.
    - Excavation in high-density areas, followed by native planting.
2. Chemical Control: *(For monocultures in restoration sites if needed)*
    - Glyphosate-based pesticide applied to standing plants in late summer.
    - Follow-up by removing dead biomass to prevent thick mats from suppressing native growth.
3. Cultural & Biological Control:
    - Encourage muskrat or waterfowl activity in natural systems to suppress regrowth.

6.2.4 *Lythrum salicaria* (Purple Loosestrife)

Control Approach:

Best Time for Treatment: Mid-to-late summer before seed dispersal.

1. Mechanical Control:
    - Hand-pull small infestations, removing all roots.
    - Cut flower heads before seed drop to prevent spread.
2. Biological Control (Preferred Method):
    - Galerucella beetles (Loosestrife Leaf Beetles) are effective at suppressing populations.
    - Releases should be monitored over multiple years to assess impact.
3. Chemical Control: *(For large stands if necessary)*
    - Spot treat with glyphosate-based pesticide in late summer.
    - Follow-up by seeding native competitors.

6.3 Pesticide Selection and Application Guidelines

When chemical control is necessary, pesticides will be carefully selected to minimize environmental impact while effectively managing invasive species. The selection and application methods will be determined based on site-specific conditions, regulatory requirements, and best management practices to ensure effective control while reducing unintended ecological impacts.

- **Target-Specific Formulations:** Only herbicides approved for use in wetland environments will be used, with preference given to herbicides that have minimal impact on non-target species.
- **Reduced Persistence and Toxicity:** Herbicides with low residual activity and rapid breakdown in soil and water will be favored to prevent long-term contamination.
- **Application Methods Based on Site Conditions:** Techniques such as cut-stump treatments, wick application, and spot spraying will be prioritized over broadcast spraying, depending on the infestation size, proximity to sensitive habitats, and hydrological conditions.

All pesticides will be applied **in accordance with the label and all applicable federal, state, and local regulations** to ensure compliance and environmental protection.

All pesticide applications will be conducted by New York State Certified Pesticide Applicators or individuals working under the direct supervision of a certified applicator, in compliance with New York Environmental Conservation Law (ECL) Article 33 and 6 NYCRR Part 325. This ensures that all chemical treatments are

applied safely, legally, and in accordance with state regulations governing pesticide use in wetland environments.

7.0 Reporting

The Wetland Trust, Inc. will provide an annual wetland restoration monitoring report which details the status of invasive plant species and all control measures. This report will be submitted by December 31st each year to USACE and NYSDEC.

8. Maps and Figures

Figure 8-1. Baseline Purple Loosestrife Percent Cover (2024)

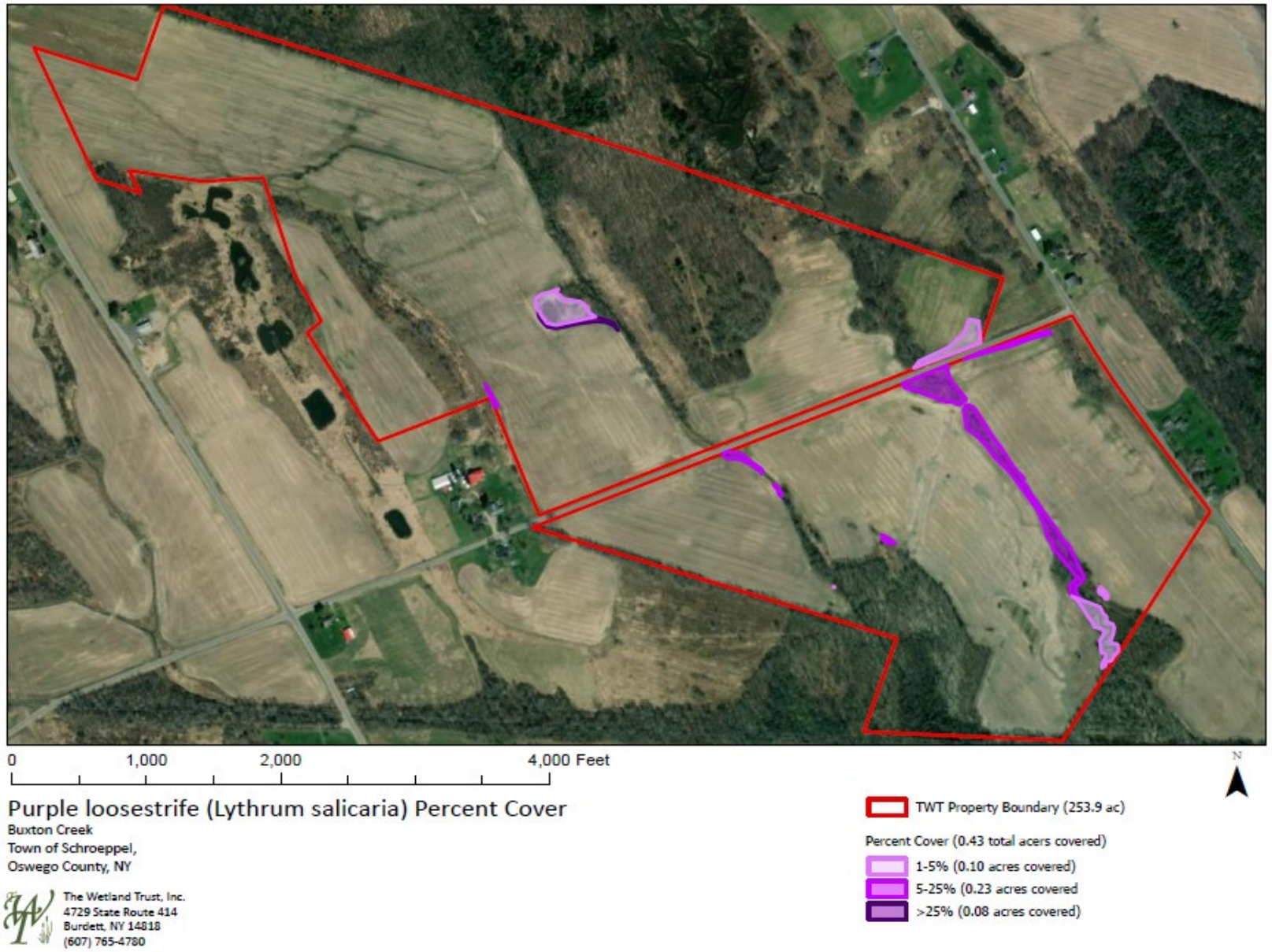


Figure 8-2 Baseline Reed Canary Grass Percent Cover (2024)

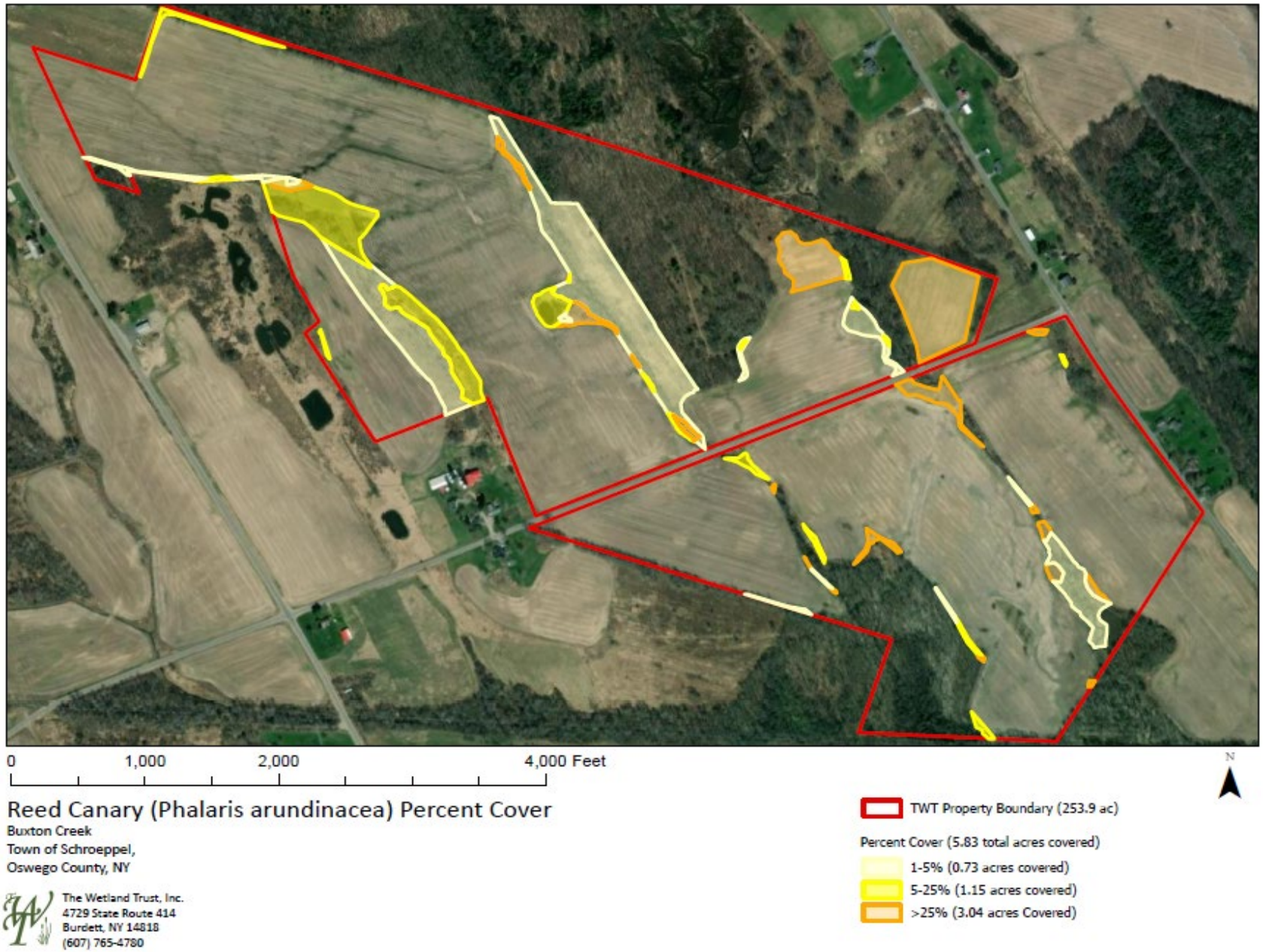


Figure 8-3 Baseline Phragmites Percent Cover (2024)

Figure 8-4 Baseline Cattail Percent Cover (2024)

Appendix F.

Wetland Design Form

Site Name: W-1 (Bell Road)	**Date: 06-20-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust)	
Objectives: Build a naturally appearing Emergent wetland bordered by Shrub-Scrub and Forested Wetland and restore a stream for mitigation.	**Site Description: An agricultural field that is planted with soybeans. The field is highly visible from the Bell Road.**
Evidence of historic drainage or filling: There is a deep ditch located along the east edge of the field. This ditch is drying the valley because it intercepts a sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Basins have been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 72-inches below the surface.**
Hydric soil present near the surface? Yes	**Elevation-change: 2.0-feet**
Test Hole location: 43.284960°N 76.231793°W **Soil texture: 0-8-inches = silt-loam, 8-inches – 78-inches silt clay loam. 78-126-inches saturated clay.**	
Rock armoring will be needed at the outlet: **Outlet: 26-feet wide x 70-feet long x 1.0-feet deep = 1,820 feet^3/27 feet^3/yard^3 = 67 yards^3 x 1.5 tons/yard^3 = 100 tons** **Total = 100 tons/24 tons/dump truck = 4- dump truck loads of rock needed**	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Fill the ditch draining the area and restore wetlands on the floodplain of the stream to be restored. Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Build a sinuous stream with a channel from 20-26-feet wide and banks no higher than 6-inches with restored wetlands on either side. Avoid building a dam because the restored stream must flow into and out from the wetland, and not look like an artificial spillway. Excavate a large and shallow basin that is deepest in the center. Most of the soil will be used to build groundwater dams for the other wetlands being built. Spread excess soil in the buffer along the Bell Road and north of the area. Create pits, mounds, and scrapes. Plant trees and shrubs on the mounds. Use rock to armor the outlet to prevent erosion.	

W-1

W-1

Wetland Design Form

Site Name: W-2 (Bell Road)	**Date: 06-22-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust)	
Objectives: Build a naturally appearing Emergent wetland bordered by Shrub-Scrub and Forested Wetland and restore a stream for mitigation.	**Site Description: An agricultural field that is planted with soybeans. The field is visible from the Bell Road.**
Evidence of historic drainage or filling: There is a deep ditch located along the east edge of the field. This ditch is drying the valley because it intercepts a sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Basins have been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Lime Green wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 37-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.286505°N 76.232791°W **Soil texture: 0-36-inches = silt-loam, 36-inches – 52-inches silt-sandy-clay (2-inch-long thin ribbons).**	
Rock armoring will be needed at the outlet: **Outlet: 26-feet wide x 70-feet long x 1.0-feet deep = 1,820 feet^3/27 feet^3/yard^3 = 67 yards^3 x 1.5 tons/yard^3 = 100 tons** **Total = 100 tons/24 tons/dump truck = 4- dump truck loads of rock needed**	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Fill the ditch draining the area and restore wetlands on the floodplain of the stream to be restored. Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Build a sinuous stream with a channel from 20-26-feet wide and banks no higher than 6-inches with restored wetlands on either side. Avoid building a dam because the restored stream must flow into and out from the wetland, and not look like an artificial spillway. Excavate a large and shallow basin that is deepest in the center. Most of the soil will be used to build groundwater dams for the other wetlands being built. Spread excess soil in the buffer along the west of the area. Create pits, mounds, and scrapes. Plant trees and shrubs on the mounds. Use rock to armor the outlet to prevent erosion.	

W-2

W-2

Wetland Design Form

Site Name: W-3 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust), Kendall Hastings (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans. The field is highly visible from the Bell Road.**
Evidence of historic drainage or filling: There is a deep ditch located along the east edge of the field. This ditch is drying the valley because it intercepts a sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Basins have been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 39-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.284620°N 76.232895°W **Soil texture: 0-10-inches = silt-loam, 10-25-inches = fine sandy loam, 25-41-inches = silt loam, 41-48-inches = clay loam (2-inch-long thin ribbons). The silt-loam and clay *will be needed to build groundwater dams for wetlands where sand is near the surface.***	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. May need to transport clay from another area to fill the core trench. Spread excess soil in the buffer along the uphill and west edge of the area. Create pits, mounds, and scrapes. Plant trees and shrubs on the mounds.	

W-3

W-3 (showing test hole)

Wetland Design Form

Site Name: W-4 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust), Kendall Hastings (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans. The field is highly visible from the Bell Road.**
Evidence of historic drainage or filling: There is a deep ditch located along the east edge of the field. This ditch is drying the valley because it intercepts a sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Basins have been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 29-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 1.8-feet**
Test Hole location: 43.285844°N 76.233930°W **Soil texture: 0-10-inches = silt-loam, 10-29-inches = sandy loam, 29-48-inches = clay loam.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench. Spread excess soil in the buffer along the west edge of the area. Create pits, mounds, and scrapes. Plant trees and shrubs on the mounds.	

W-4

W-4

Wetland Design Form

Site Name: W-5 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust), Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 41-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.4-feet**
Test Hole location: 43.265708°N 76.190404°W **Soil texture: 0-10-inches = topsoil, 10-27-inches = fine sandy loam, 27-48-inches = silt loam, 48-inches + = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Block diversion ditch along the west side of the field. Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench. Spread excess soil in the buffer along the Southwest edge of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-5

W-5

Wetland Design Form

Site Name: W-6 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust), Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 50-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.287382°N 76.235779°W **Soil texture: 0-9-inches = topsoil, 9-36-inches = fine sandy loam, 36-50-inches = silt loam, 50-inches + = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Block diversion ditch along the west side of the field. Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench. Spread excess soil west of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-6

W-6

Wetland Design Form

Site Name: W-7 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Franz (The Wetland Trust), Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Yellow wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 44-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.288405°N 76.235181°W **Soil texture: 0-10-inches = topsoil, 10-44-inches = fine sandy loam, 44-102-inches = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Block diversion ditch along the west side of the field. Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench. Spread excess soil west of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-7

W-7 (using a 10.5-foot soil auger to dig the test hole

Wetland Design Form

Site Name: W-8 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges, and along Bell Road. These are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 29-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.288405°N 76.235181°W **Soil texture: 0-8-inches = topsoil, 8-29-inches = sandy loam, 29-35-inches = sandy clay, 35-65-inches = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench. Spread excess soil downhill and south of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

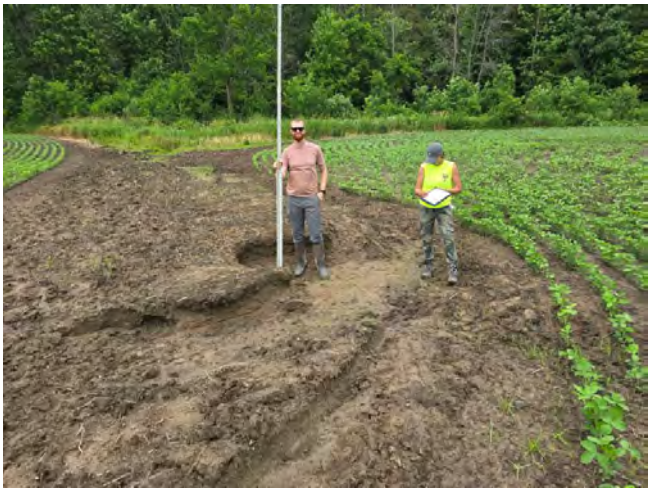
W-8

W-8 (showing clay that is present 35-inches below the surface)

Wetland Design Form

Site Name: W-9 (Bell Road)	**Date: 06-23-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation. The wetland area will also include a section of a restored stream.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Orange color wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 30-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 1.6 feet**
Test Hole location: 43.289149°N 76.235754°W **Soil texture: 0-11-inches = topsoil, 11-48-inches = clay.**	
Rock armoring of the outlet is needed. Head-cuts are located at the lower edge of this planned wetland that must be controlled. Rock armoring at inlet and outlet: Use rock to control the head-cuts where water drains from this area into the ditch along the east edge of the field. One head-cut is 1.6-feet vertical the other 2-foot vertical. Rock needed = 150-feet long x 40-feet wide x 1.5-feet thick = 9,000 feet^3/27 feet^3/yard^3 = 333 yards^3 x 1.5-tons/yard^3 = 500 tons	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench if needed. Spread excess soil to the south of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds. Build a naturally appearing stream and floodplain in the area. Fill a section of the ditch along the east side of the field.	

W-9



W-9 (Showing one of the head-cuts that would be controlled

Wetland Design Form

Site Name: W-10 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Frantz (The Wetland Trust) Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 39-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.289179°N 76.237289°W **Soil texture: 0-9-inches = topsoil, 9-39-inches = sandy loam, 39-48-inches = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam that is removed with clay. Spread excess soil southwest of the area. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-10

W-10

Wetland Design Form

Site Name: W-11 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Ed Frantz (The Wetland Trust) Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 38-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 1.5-feet**
Test Hole location: 43.2900439°N 76.236657°W **Soil texture: 0-9-inches = topsoil, 9-29-inches = sandy loam, 29-38-inches = silt loam, 38-48-inches = clay.**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam that is removed with clay. Spread excess soil north into the buffer. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-11

W-11 (Showing soil test hole)

Wetland Design Form

Site Name: W-12 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust) Ed Frantz (The Wetland Trust) Harrison Frantz (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Lime wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 48-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.290387°N 76.238154°W **Soil texture: 0-10-inches = topsoil, 10-48-inches = sandy loam, 48-inches + = clay**	
Rock armoring at inlet and outlet: Not needed	
Head-cuts located uphill or downhill of the planned wetland. None	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam that is removed with clay. Spread excess soil north into the buffer. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-12

W-12

Wetland Design Form

Site Name: W-13 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust) Ed Frantz (The Wetland Trust) Harrison Frantz (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: An eroding ditch bisects the area. There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 38-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.289772°N 76.238582°W **Soil texture: 0-12-inches = topsoil, 12-57 = clay**	
Rock armoring at inlet and outlet: Yes. Needed to control erosion. **Inlet: 12-feet wide x 50-feet long x 1.5-feet deep = 900 feet^3/27 feet^3/yard^3 = 33 yards^3 x 1.5 tons/yard^3 = 50 tons** **Outlet: 12-feet wide x 50-feet long x 1.5-feet deep = 900 feet^3/27 feet^3/yard^3 = 33 yards^3 x 1.5 tons/yard^3 = 50 tons** **Total = 100 tons**	
Head-cuts located uphill or downhill of the planned wetland. Yes	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil south uphill into the buffer. Armor with rock the inlet and outlet. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-13

W-13

Wetland Design Form

Site Name: W-14 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 40-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.289755°N 76.239767°W **Soil texture: 0-8-inches = topsoil, 8-40-inches = sandy loam, 40-52-inches silt loam, 52-inches += clay**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil south into the buffer. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-14

W-14

Wetland Design Form

Site Name: W-15 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 20-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 1.2-feet**
Test Hole location: 43.290784°N 76.239625°W **Soil texture: 0-9-inches = topsoil, 8-28-inches = sandy silt loam, 44-inches + = clay loam**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil north into the buffer. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-15

W-15

Wetland Design Form

Site Name: W-16 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: There is a deep diversion ditch located along the west edge of the field, and a deep ditch bordering the east edge of the field. These ditches are drying the valley because they intercept the sand layer near the surface of the fields. The east ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Lime wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 34-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 1.5-feet**
Test Hole location: 43.290871°N 76.240629°W **Soil texture: 0-10-inches = topsoil, 10-67-inches = sandy loam, 67-inches + = clay loam**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil north into the buffer. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-16

W-16

Wetland Design Form

Site Name: W-17 (Bell Road)	**Date: 06-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: A deep ditch borders the east edge of the field. This ditch is drying the valley because it intercepts the sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 35-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.289757°N 76.241339°W **Soil texture: 0-11-inches = topsoil, 11-55-inches = sandy loam, 55-inches + = clay**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil south. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-17

W-17

Wetland Design Form

Site Name: W-18 (Bell Road)	**Date: 6-24-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: A deep ditch borders the east edge of the field. This ditch is drying the valley because it intercepts the sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 37-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.289984°N 76.242115°W **Soil texture: 0-10-inches = topsoil, 10-38-inches = sandy loam, 38-57-inches = silt loam, 57-inches + = clay**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Save and use all silt loam to place in the core trench. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil south or west. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-18

W-18

Wetland Design Form

Site Name: W-19 (Bell Road)	**Date: 6-25-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust), Kendall Hastings (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: A deep ditch borders the east edge of the field. This ditch is drying the valley because it intercepts the sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? Not found.**
Hydric soil present near the surface? No	**Elevation-change: 3.0-feet**
Test Hole location: 43.291337°N 76.241478°W **Soil texture: 0-16-inches = topsoil- silt loam, 16-22-inches = silt loam, 22-inches – 48-inches + = clay.**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
This wetland may be a primary source of silt loam and clay for building the groundwater dams for wetlands sites that have a thick layer of sand on the surface. Dig all the silt loam and clay soil possible from this area, including within the buffer, and replace with sand if needed.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil north or west. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-19

W-19

Wetland Design Form

Site Name: W-20 (Bell Road)	**Date: 6-25-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust), Kendall Hastings (The Wetland Trust)	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: A deep ditch borders the east edge of the field. This ditch is drying the valley because it intercepts the sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 42-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.6-feet**
Test Hole location: 43.290371°N 76.242612°W **Soil texture: 0-11 inches = topsoil, 11-74-inches = sandy loam, 74-inches + = clay**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil north. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-20

W-20

Wetland Design Form

Site Name: W-21 (Bell Road)	**Date: 6-25-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Individuals assisting with the design: Kirsten Gerhardt (The Wetland Trust), Kendall Hastings (The Wetland Trust), Dylan Johnson-Jordan	
Objectives: Build a naturally appearing Forested and Shrub-Scrub for mitigation.	**Site Description: An agricultural field that is planted with soybeans.**
Evidence of historic drainage or filling: A deep ditch borders the east edge of the field. This ditch is drying the valley because it intercepts the sand layer near the surface of the fields. The ditch is deep enough to serve as a main outlet for buried drainage structures. Additional ditches are located around the field edges that are diverting runoff, removing surface water, and lowering the elevation of groundwater. Historic basins have also been filled and the surface of fields sloped for drainage.	
Plant species: Soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Chufa (nut sedge)	**Groundwater elevation in test hole? 38-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change: 2.0-feet**
Test Hole location: 43.2905881°N 76.243586°W **Soil texture: 0-10 inches = topsoil, 10-48-inches = sandy loam, clay may be 70-inches deep.**	
Rock armoring at inlet and outlet: Not needed.	
Head-cuts located uphill or downhill of the planned wetland. No	
Woody debris source: Not available on site. Would need to be transported to the site.	
Construction notes: Dig a core trench and build a groundwater dam around the lower 2/3 perimeter of the area. Excavate a large and shallow basin that is deepest in the center. Transport clay from another area to fill the core trench, replacing the sandy loam with clay. Spread excess soil north or west. Create pits, mounds, and scrapes. Loosen compacted soil and plant trees and shrubs on the mounds.	

W-21

W-21

Wetland Design Form

Site Name: Reed 1	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
The Wetland Trust Employees assisting with the design: Ed Frantz, Harrison Frantz, Kendall Hastings, Dylan Johnston-Jordan	
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Reed Canary grass on neighboring private land.	**Groundwater elevation in test hole? 9-foot 8-inches below the surface.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2.0-feet**
Test Hole location: 43.285713°N 76.229966°W **Soil texture: 0-7-inches = topsoil, 7-126-inches = clay.**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill to the south. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 1

Reed 1 (digging a deep test hole using a 10.5-foot-long soil auger

Wetland Design Form

Site Name: Reed 2	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
The Wetland Trust Employees assisting with the design: Ed Frantz, Harrison Frantz, Kendall Hastings, Dylan Johnston-Jordan	
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Yellow wire flags**
Invasive species: Reed Canary grass on neighboring private land.	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2.0-feet**
Test Hole location: 43.286535°N 76.228762°W **Soil texture: 0-7-inches = topsoil, 7-126-inches = clay.**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 2

Reed 2

Wetland Design Form

Site Name: Reed 3	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
The Wetland Trust Employees assisting with the design: Kendall Hastings, Dylan Johnston-Jordan	
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: Reed Canary grass on neighboring private land.	**Groundwater elevation in test hole? Not detected**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2.0-feet**
Test Hole location: 43.287174°N 76.228208°W **Soil texture: 0-7-inches = topsoil, 7-29-inches = clay, 29-34-inches = mixed clay and gravel, 34-48-inches = clay**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 3

Reed 3

Wetland Design Form

Site Name: Reed 4	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
The Wetland Trust Employees assisting with the design: Kendall Hastings, Dylan Johnston-Jordan	
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Orange wire flags**
Invasive species: Reed Canary grass on neighboring private land.	**Groundwater elevation in test hole? 43-inches below surface**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2.0-feet**
Test Hole location: 43.286521°N 76.227220°W **Soil texture: 0-9-inches = topsoil, 9-38-inches = clay, 38-54-inches = sandy loam, 54-inches + = clay**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill and into buffer along the Bell Road. Add pits, scrapes, and mounds and then plant with native trees and shrubs. Place sandy loam soil for turtle nesting habitat.	

Reed 4

Reed 4 (showing soil test hole)

Wetland Design Form

Site Name: Reed 5	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
The Wetland Trust Employees assisting with the design: Kendall Hastings, Dylan Johnston-Jordan	
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: White wire flags**
Invasive species: Reed Canary grass on neighboring private land.	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 3.0-feet**
Test Hole location: 43.287447°N 76.227815°W **Soil texture: 0-8-inches = topsoil, 8-16-inches = clay, 16-37-inches = sandy clay, 37-inches + = clay**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 16-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 5

Reed 5

Wetland Design Form

Site Name: Reed 6	**Date: 06-21-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Ditches border all sides of the field. The deep ditch along the west side and along Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Pink wire flags**
Invasive species: None	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 1.8-feet**
Test Hole location: 43.286121°N 76.229175°W **Soil texture: 0-9-inches = topsoil, 9-48-inches = clay**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 6

Reed 6

Wetland Design Form

Site Name: Reed 7	**Date: 08-01-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser. Assisting: Dylan Johnston-Jordan, Kendall Hastings**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: An agricultural field planted to soybeans.**
Evidence of historic drainage or filling: Deep ditch/creek (Buxton Creek) to the west. The deep ditch Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Not marked**
Invasive species: Phalaris arundinacea	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2.5-feet**
Test Hole location: 43.287359°N 76.229093°W **Soil texture: 0-20-inches = topsoil silt loam, 20-32-inches = sandy loam, 32-36-inches = clay, 36-45-inches = silt loam**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

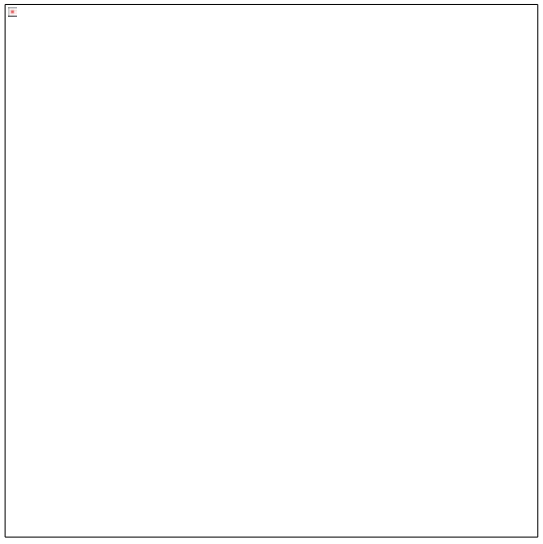
Reed 7

Reed 7

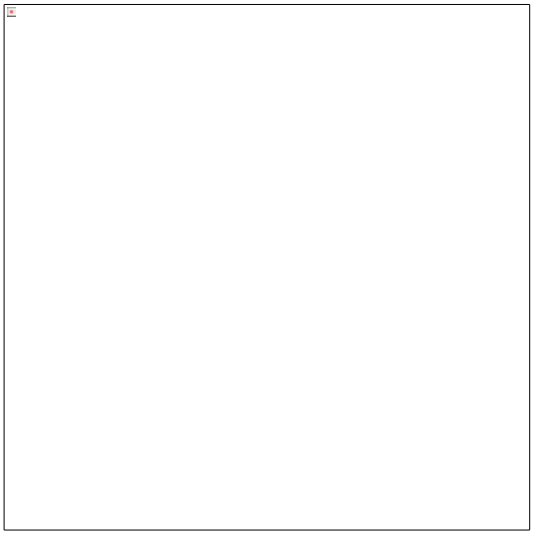
The picture can't be displayed.

Wetland Design Form

Site Name: Reed 8	**Date: 08-01-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser. Assisting: Dylan Johnston-Jordan, Kendall Hastings**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: Historically farmed field currently filled with Reed Canary Grass and Goldenrod, Buxton creek to the east of the field.**
Evidence of historic drainage or filling: Deep ditch/creek (Buxton Creek) to the west. The deep ditch Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Planted soybeans	**How the planned wetland is marked on the ground: Not marked**
Invasive species: Phalaris arundinacea, Solidago sp.	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2-feet**
Test Hole location: 43.287927°N 76.228467°W **Soil texture: 0-12-inches = topsoil silt loam, 12-30-inches = silt sand, 30-42-inches = clay**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Status of land for building needs to be determined. Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil downhill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	



Reed 8



Reed 8

Wetland Design Form

Site Name: Reed 9	**Date: 08-01-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser. Assisting: Dylan Johnston-Jordan, Kendall Hastings**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: Historically farmed field in hay, Buxton creek to the west of the field. Ditch is present along Bell Rd.**
Evidence of historic drainage or filling: Deep ditch/creek (Buxton Creek) to the west. The deep ditch Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Green ash, Purple Stem, Foxtail, Juncus effusus, Grass leaf aster, Salix sp.	**How the planned wetland is marked on the ground: Not marked**
Invasive species: Phalaris arundinacea, Lythrum salicaria	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? Yes	**Elevation-change upper to lower edge of designed wetland: 2-feet**
Test Hole location: 43.287139°N 76.226299°W **Soil texture: 0-10-inches = topsoil clay loam, 10-25-inches = silt clay, 25-34-inches = silt loam, 34-45-inches = silt loam**	
Rock armor the inlet and outlet for the wetland? Not needed.	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: : Status of land for building needs to be determined. Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil uphill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 9

Reed 9

Wetland Design Form

Site Name: Reed 10	**Date: 08-01-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser. Assisting: Dylan Johnston-Jordan, Kendall Hastings**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: Historically farmed field in hay, Buxton creek to the west of the field. Ditch is present along Bell Rd. Reed 10 is east of Reed 9**
Evidence of historic drainage or filling: Deep ditch/creek (Buxton Creek) to the west. The deep ditch Bell Road may serve as outlets for buried drainage systems. Natural basins have been filled and the land sloped for drainage.	
Plant species: Green ash, Purple Stem, Foxtail, Juncus effusus, Grass leaf aster, Salix sp.	**How the planned wetland is marked on the ground: Not marked**
Invasive species: Phalaris arundinacea, Lythrum salicaria	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2-feet**
Test Hole location: 43.287272°N 76.225547°W **Soil texture: 0-12-inches = topsoil silt loam, 12-15-inches = silt loam, 15-40-inches = clay.**	
Rock armor the inlet and outlet for the wetland? Rock armor required for spillway due to slope greater than 1 degree	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: : Status of land for building needs to be determined. Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil uphill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

Reed 10

Reed 10

Wetland Design Form

Site Name: Reed 11	**Date: 08-01-2024**
Landowner: The Wetland Trust	**Designer Name: Thomas R. Biebighauser. Assisting: Dylan Johnston-Jordan, Kendall Hastings**
Objectives: Build a naturally appearing and functioning wetland for mitigation.	**Site Description: Historically farmed field in hay, deep agricultural ditch to the west of the field.**
Evidence of historic drainage or filling: Deep agricultural ditch to the west of the field. Natural basins have been filled and the land sloped for drainage. Likely buried drainage structures present.	
Plant species: Onoclea sensibilis, Eutrochium maculatum, Salidago sp., Impatiens compensis	**How the planned wetland is marked on the ground: Not marked**
Invasive species: Phalaris arundinacea	**Groundwater elevation in test hole? Not detected.**
Hydric soil present near the surface? No	**Elevation-change upper to lower edge of designed wetland: 2-feet**
Test Hole location: 43.287348°N 76.232472°W **Soil texture: 0-8-inches = topsoil silt loam, 8-45-inches = silt loam.**	
Rock armor the inlet and outlet for the wetland? Not required	
Head-cuts located uphill or downhill of the planned wetland. None.	
Woody debris source: Not available on site. Would need to be brought in by truck.	
Construction notes: Status of land for building needs to be determined. Build a groundwater dam along the lower perimeter of the wetland being built. Build an above ground dam that is no higher than 12-inches. Spread soil uphill. Add pits, scrapes, and mounds and then plant with native trees and shrubs.	

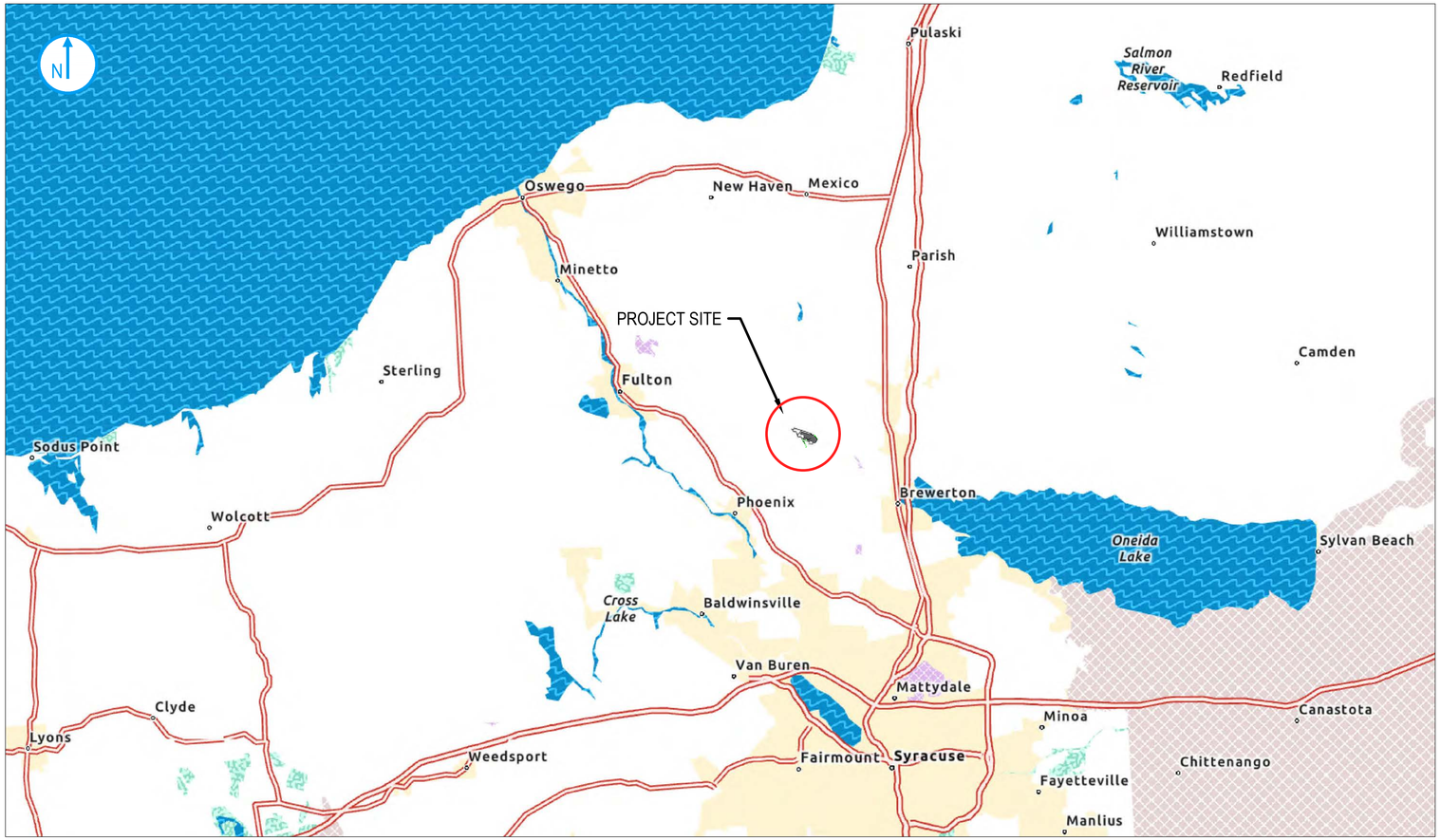
Reed 11

Reed 11

Appendix G.

[left intentionally blank, will be added to future submittals]

SAVED: 3/6/25 2:06 PM



SITE LOCATION MAP

26400 0 26400

SCALE: 1"= 5 MILES

THE WETLAND TRUST
STREAM MITIGATION PROJECT
BUXTON CREEK SITE
BELL RD, PENNELLVILLE, NY 13132

ALL SITE PLANS IMPLEMENT THE FOLLOWING HORIZONTAL COORDINATES:
NAD83 NEW YORK STATE PLANES, CENTRAL ZONE, US FOOT
VERTICAL COORDINATE SYSTEM IS: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD99)

INDEX TO DRAWINGS

ABBREVIATIONS:

EG	EXISTING GROUND	STA	STATION
FG	FINISH GROUND	ELEV	ELEVATION
ES	EXISTING STREAM	SQ	SQUARE FEET
DS	DESIGN STREAM	CFPS	CUBIC FEET PER SECOND
NE	NORTHEAST	MAX	MAXIMUM
SE	SOUTHEAST	MIN	MINIMUM
NW	NORTHWEST	DS	DOWNSTREAM
SW	SOUTHWEST	US	UPSTREAM
AVG	AVERAGE	TYP	TYPICAL
FT	FEET	APPR.	APPROXIMATE

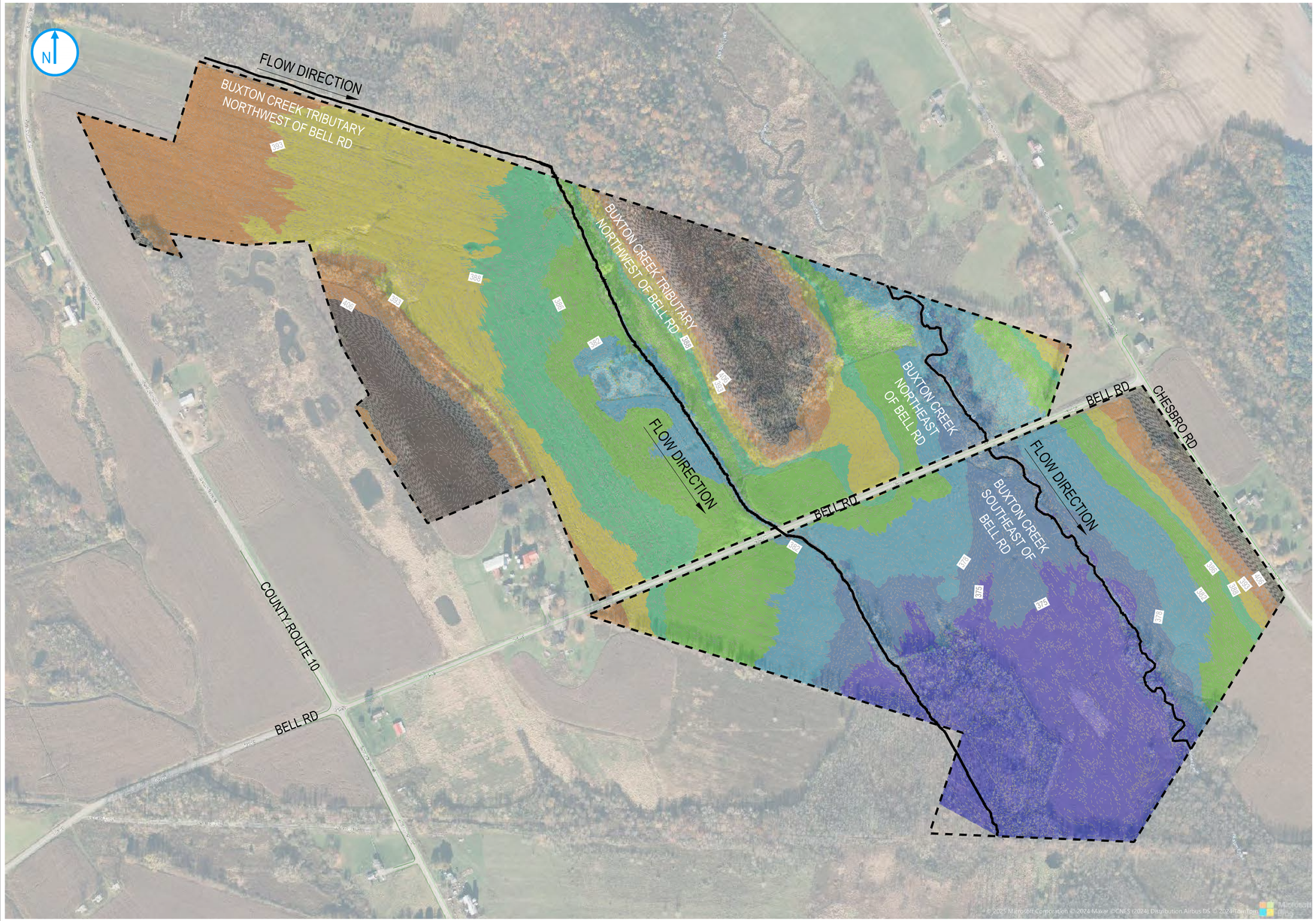
PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 2/24/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132	Drawing Title: **COVER AND TITLE SHEET**				
Location: NEW YORK	Designer / Professional Engineer Responsible: ####			###	###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-001**			Scale NTS	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\COVER AND TITLE.DWG

SAVED: 3/6/25 2:03 PM



EXISTING CONDITIONS SITE PLAN

300 0 300

SCALE: 1"=300'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

Elevations Table

Number	Minimum Elevation (ft)	Maximum Elevation (ft)	Area (ft^2)	Color
1	370.26	375.00	1646207.13	
2	375.00	378.00	963560.53	
3	378.00	382.00	1411435.86	
4	382.00	386.00	1707556.76	
5	386.00	388.00	997745.08	
6	388.00	393.00	1652487.26	
7	393.00	406.00	1307573.23	
8	406.00	442.31	1184922.99	

PRELIMINARY
NOT FOR
CONSTRUCTION

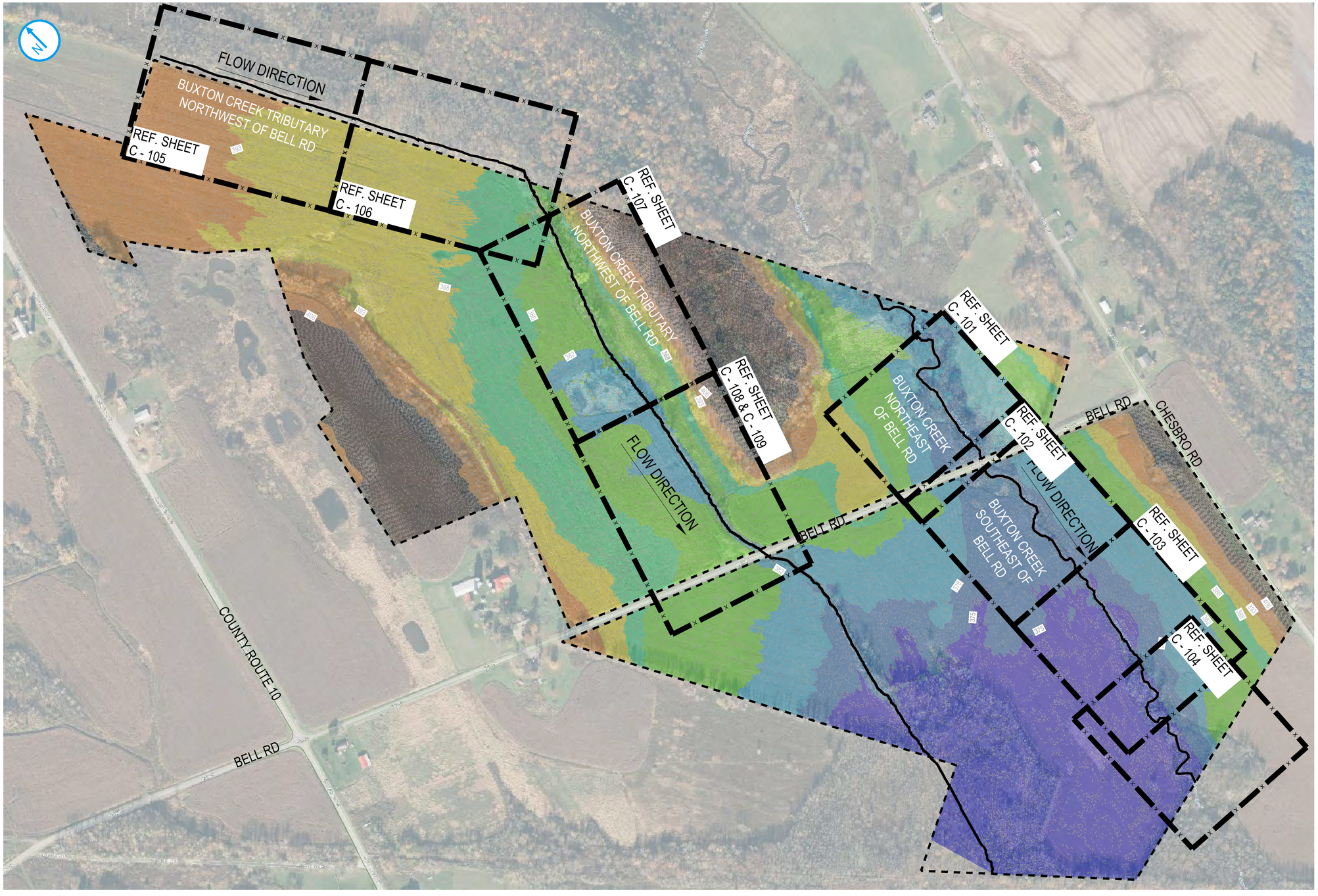
DATE: 2/24/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING CONDITIONS SITE PLAN**			### ###	
Location: ####	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-002**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING SITE AND KEY PLAN.DWG

SAVED: 3/6/25 2:03 PM



Elevations Table				
Number	Minimum Elevation (ft)	Maximum Elevation (ft)	Area (ft^2)	Color
1	370.26	375.00	1646207.13	
2	375.00	378.00	963560.53	
3	378.00	382.00	1411435.86	
4	382.00	386.00	1707556.76	
5	386.00	388.00	997745.08	
6	388.00	393.00	1652487.26	
7	393.00	406.00	1307573.23	
8	406.00	442.31	1184922.99	

LEGEND

PROPERTY BOUNDARY LINE

EXISTING STREAM ALIGNMENT

KEY PLAN FOR EXISTING CONDITIONS

250 0 250

SCALE: 1"=250'

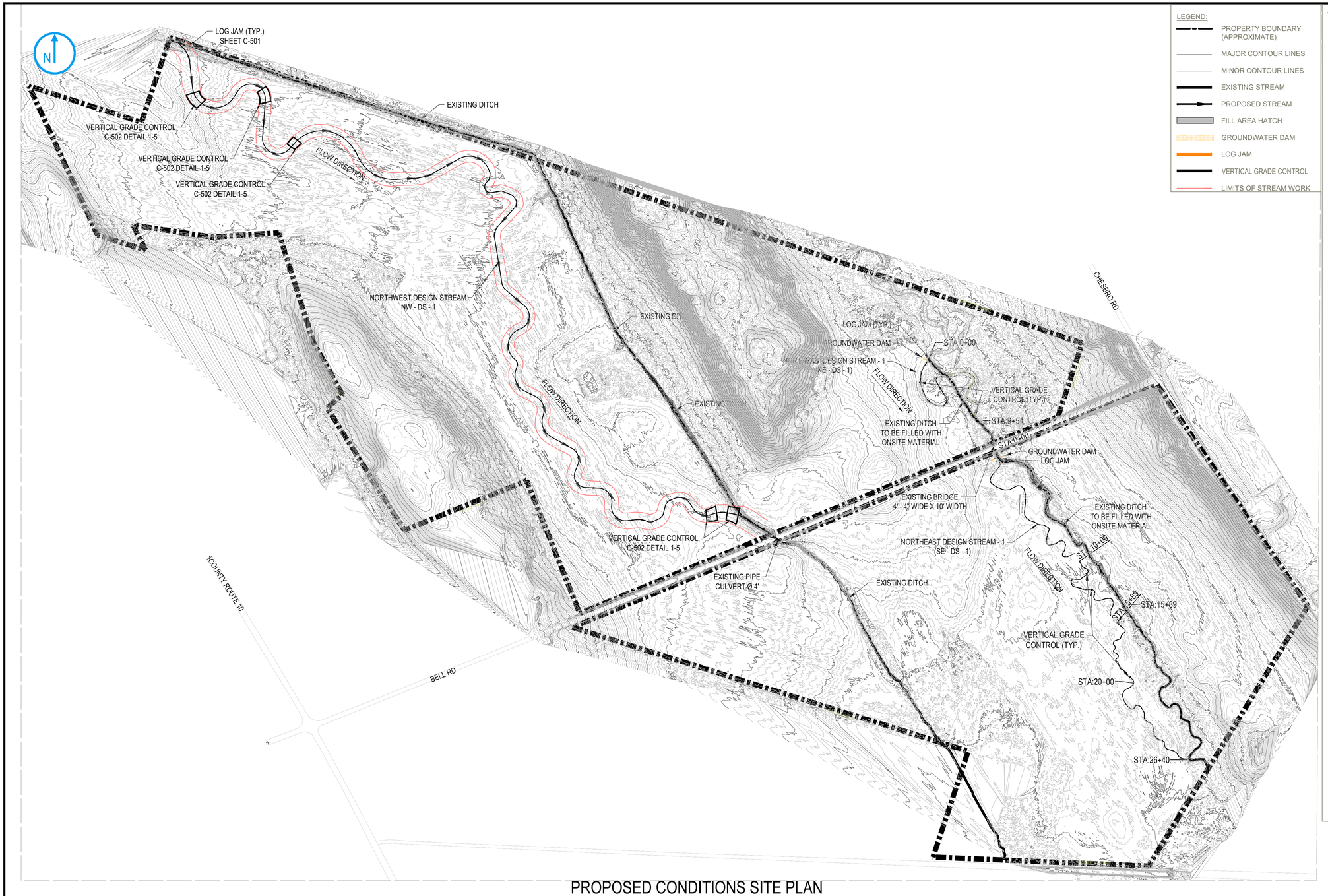
PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/24/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **KEY PLAN FOR EXISTING CONDITIONS**				### ### ###
Location: ####	Designer / Professional Engineer Responsible: ####				
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-003**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICROMDWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING SITE AND KEY PLAN.DWG



PROPOSED CONDITIONS SITE PLAN

250 0 250

SCALE: 1"=250'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

NOTES:

1. EXISTING TOPOGRAPHY BASED ON LiDAR DATA COLLECTED BY RAMBOLL ON 11/26/2024. BANKFULL DIMENSIONS BASED ON STREAMSTATS DATA AND FIELD OBSERVATIONS FROM 2024.
2. IMPROVEMENT AND RESTORATION ACTIVITIES WITHIN THE FEDERAL WETLANDS AND WATERCOURSE WILL BE PERFORMED IN ACCORDANCE WITH SECTIONS 401 AND 404 OF THE CLEAN WATER ACT AND OTHER PERMIT CONDITIONS OF THE USACE AND NYSDEC.
3. THE CONTRACTOR SHALL MAINTAIN STREAM FLOW RATES DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL NOT PERFORM CONSTRUCTION ACTIVITIES DURING PERIODS OF PROLONGED PRECIPITATION OR WHEN PROLONGED PRECIPITATION IS FORECASTED. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION OPERATIONS AS REQUIRED TO LIMIT THE MIGRATION OF SILTATION/SEDIMENT DOWNSTREAM OF THE CONSTRUCTION ZONE. SPECIFIC CRITERIA TO BE ADHERED TO INCLUDE THE FOLLOWING:
   - 4.1. TURBIDITY: NO INCREASE IN TURBIDITY 400 FEET DOWNSTREAM OF THE CONSTRUCTION ZONE WHICH WILL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS.
   - 4.2. SETTLEABLE SOLIDS: NO SETTLEABLE SOLIDS 100 FEET DOWNSTREAM OF THE CONSTRUCTION ZONE WHICH WILL CAUSE DEPOSITION OR IMPAIR THE WATERS FOR THEIR BEST USAGES.
5. IN-STREAM/WETLAND CONSTRUCTION WILL BE PERFORMED ONLY DURING DAYLIGHT HOURS. THE CONTRACTOR SHALL MAINTAIN BY-PASS PUMPING OPERATIONS DURING THE PERFORMANCE OF CONSTRUCTION ACTIVITIES WITHIN THE STREAM/WETLAND. IF CONSTRUCTION OPERATIONS ARE TEMPORARILY SUSPENDED DUE TO NIGHTFALL, BY-PASS PUMPING SHALL BE MAINTAINED, IF REQUIRED. TO MINIMIZE THE DOWNSTREAM TRANSPORT OF SETTLEABLE SOLIDS AND IMPACTS TO STREAM/WETLAND TURBIDITY IN ACCORDANCE WITH NOTE 4.
6. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO COMPLETE CONSTRUCTION OPERATIONS AS EXPEDITIOUSLY AS PRACTICAL SO AS TO MINIMIZE THE DURATION OF DISTURBANCE WITHIN THE STREAM/WETLAND.
7. ALL CONSTRUCTION EQUIPMENT SHALL BE REMOVED FROM THE STREAM/WETLAND UPON COMPLETION OF CONSTRUCTION.
8. ESC FACILITIES (I.E., SILT FENCING, STABILIZED CONSTRUCTION ENTRANCES) SHALL BE MAINTAINED WITHIN THE WORK AREA (I.E., STREAM BANK) EXCEPT AS REQUIRED TO ALLOW EQUIPMENT ACCESS FOR CONSTRUCTION ACTIVITIES AND SHALL BE MAINTAINED UNTIL REVEGETATION IS COMPLETE.
9. THE CONTRACTOR SHALL NOT STORE CHEMICALS, FUELS, OR LUBRICATING OILS WITHIN 100 FEET OF STREAM/WETLAND. WITH THE EXCEPTION OF DEWATERING PUMPS, EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF STREAM/WETLAND.
10. EQUIPMENT AND/OR MACHINERY SHALL NOT BE WASHED IN THE STREAM/WETLAND NOR SHALL THE CONTRACTOR PERMIT WATER FROM SUCH ACTIVITIES TO ENTER THE STREAM/WETLAND.
11. THE CONTRACTOR'S STAGING AREA SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM THE STREAM/WETLAND BANK.
12. ALL NECESSARY PRECAUTIONS WILL BE TAKEN TO PRECLUDE CONTAMINATION OF ANY WATERWAYS BY SUSPENDED SOLIDS, SEDIMENTS, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, PAINTS, CONCRETE, LEACHATE, OR ANY OTHER ENVIRONMENTALLY DELETERIOUS MATERIALS ASSOCIATED WITH THE PROJECT WORK.
13. THE STREAM BED SHALL BE RESTORED AS SOON AS PRACTICABLE AND STREAM SECTIONS (BED AND BANK) SHALL BE STABILIZED PRIOR TO RESTORING FLOW.
14. CUT OR PRUNE EXISTING STREAM BANK/WETLAND VEGETATION UTILIZING APPROPRIATE PRUNING METHODS.
15. COLLECT AND STOCKPILE EXISTING DOWNED TREES AND COARSE WOODY DEBRIS WITH ROOTWADS INTACT IF POSSIBLE. A MINIMUM OF 15-FT OF TRUNK SHALL BE MAINTAINED ABOVE THE ROOT WAD FOR USE IN CONSTRUCTING THE PROPOSED ENGINEERED LOG JAM AND TO FILL IN THE NEW SECONDARY CHANNEL (SEE C-501).
16. INSTALL THE ENGINEERED LOGJAM TO PERMANENTLY DIRECT FLOW INTO THE HISTORIC CHANNEL AND AWAY FROM THE NEW SECONDARY CHANNEL.
17. FILL THE NEW SECONDARY CHANNEL WITH BEDLOAD AND COARSE WOODY DEBRIS TO TOP OF BANK.
18. STREAM/WETLAND DISTURBANCE CONSTRUCTION SEQUENCE GUIDELINES SHALL BE AS FOLLOWS:
   - 18.1. INSTALL SILT FENCE OR EQUIVALENT AT EDGE OF STREAM/WETLAND TO CONTROL SEDIMENT LADEN RUNOFF TO STREAM/WETLAND.
   - 18.2. COMPLETE STREAM CHANNEL GRADING PER CONSTRUCTION DRAWINGS, GENERALLY WORKING FROM THE DOWNSTREAM END TO UPSTREAM END. FLOW SHALL NOT BE DIRECTED INTO THE PROPOSED CHANNEL UNTIL THE PROPOSED CHANNEL IS STABILIZED.
   - 18.3. INSTALL BY-PASS PUMPING AND SILTATION CONTROL MEASURES AS NECESSARY IN STREAM/WETLAND.
   - 18.4. REMOVE AND DISPOSE OF ANY ACCUMULATED SEDIMENT IN DESIGNATED AREAS OUTSIDE OF WETLANDS ONLY.
   - 18.5. PLANT WOODY VEGETATION AND SEED AND MULCH DISTURBED AREAS.
19. CAREFULLY REMOVE TEMPORARY SILTATION CONTROL MEASURES FROM THE LIMITS OF THE STREAM/WETLAND FLOW AREA.
20. THE CONTRACTOR SHALL SELECT THE NUMBER AND CAPACITY OF BY-PASS PUMPS REQUIRED TO DIVERT STREAM FLOW AROUND THE CONSTRUCTION ZONE.
21. THE CONTRACTOR SHALL OPERATE CONSTRUCTION EQUIPMENT WITHIN THE STREAM BED/WETLAND AS REQUIRED TO COMPLETE WORK. CONSTRUCTION MATS SHALL BE USED AS REQUIRED TO DEVELOP A STABLE BASE FOR THE MOVEMENT OF EQUIPMENT.
22. SANDBAGS SHALL BE FILLED WITH WELL GRADED COARSE SAND HAVING NO MORE THAN 10% (BY WEIGHT) PASSING THE NO. 100 SIEVE.

NO.	REV DATE	REVISION	INT.

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED CONDITONS SITE PLAN**			### ### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####				
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-004**			Scale AS NOTED	Sc: x / Rev.: x

SAVED: 3/6/25 7:44 PM

PROPOSED CONDITIONS KEY PLAN

250 0 250

SCALE: 1"=250'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/24/2025

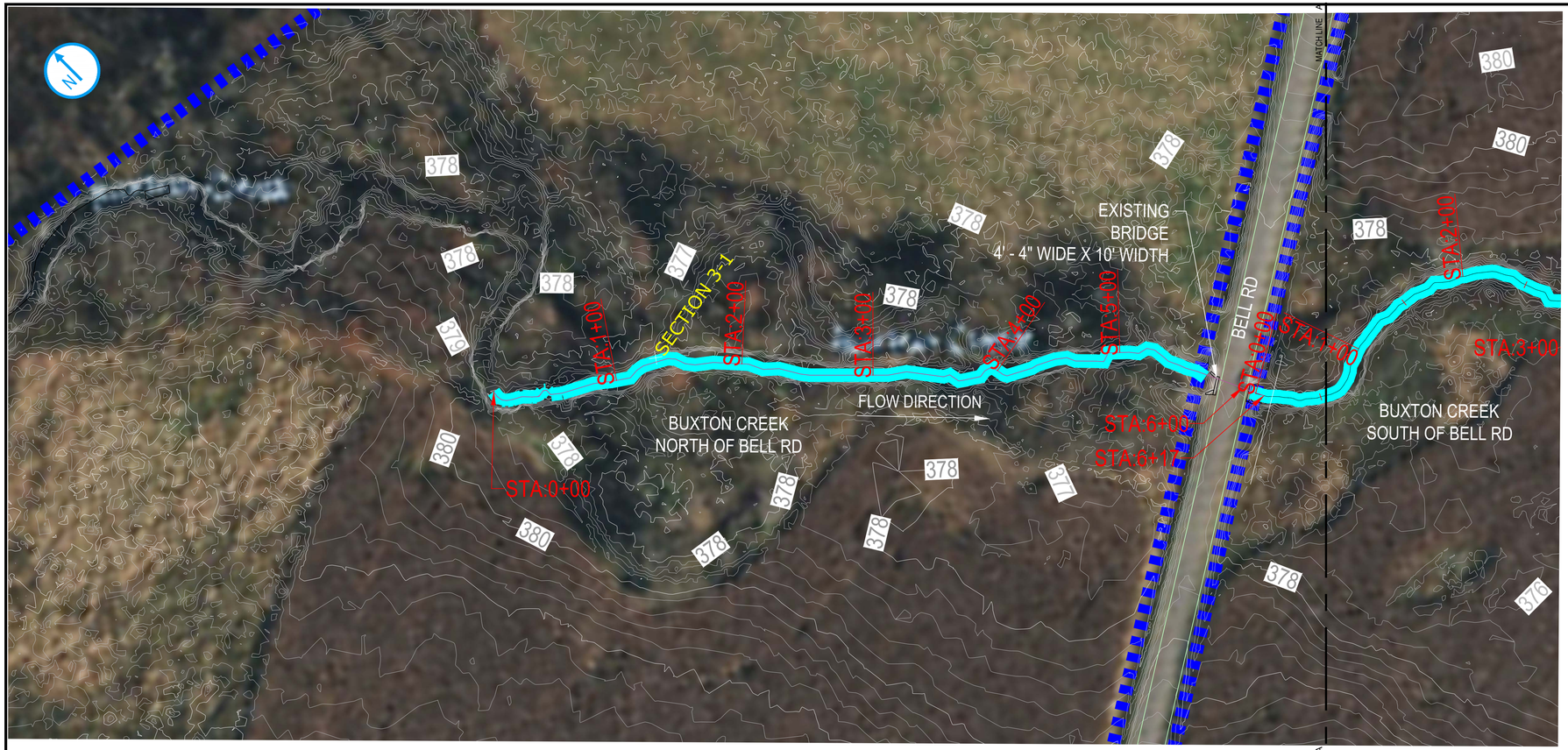
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED CONDITIONS KEY PLAN**		### ###
Location: NEW YORK	Designer / Professional Engineer Responsible: ####		###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-005**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED SITE AND KEY PLAN.DWG

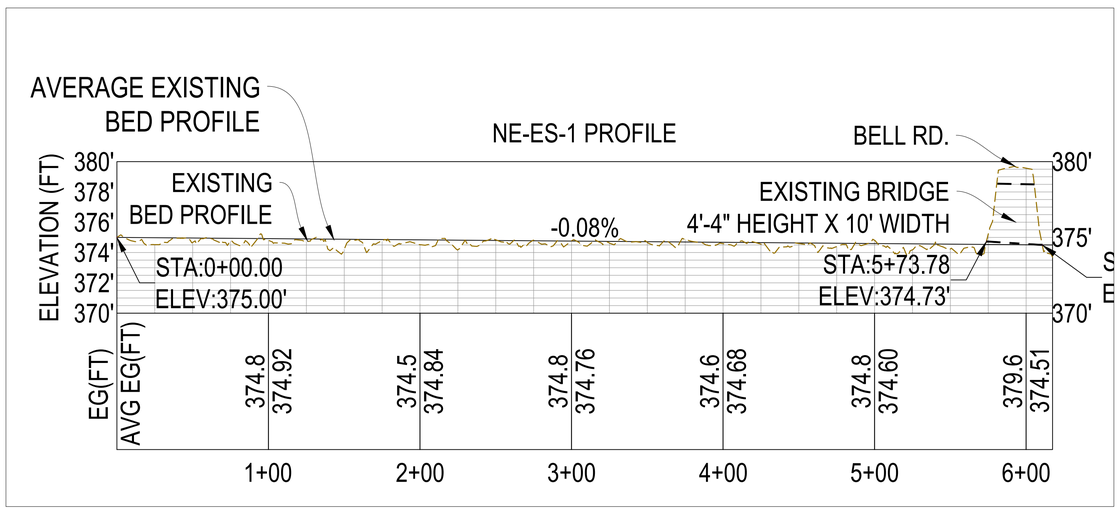
SAVED: 3/6/25 2:06 PM



EXISTING PLAN & PROFILE NE-ES-1

50 0 50

SCALE: 1"=50'



PROFILE STATION 0+00 TO 5+65

50 0 50 — SCALE HORZ. 1" = 50'

5' 0 5' — SCALE: VERT. 1"= 5'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

Point Table

Point #	Elevation (FT)	Northing	Easting	Description
1	373.65	1197435.98	915479.83	SECTION 1-1
2	374.65	1197402.68	915537.78	SECTION 1-2
3	374.58	1196380.77	916083.78	SECTION 2-1
4	374.89	1197976.36	915040.04	SECTION 3-1

TABLE C-101-1 BUXTON CREEK (NORTH OF BELL RD)

MEASUREMENT LOCATION: SECTION 3-1

BASEFLOW CONDITIONS

MEASURED FLOW DATA

DISTANCE * (FT)	DISTANCE (FT)	DEPTH (FT)	DEPTH (FT)	60% OF MAX**	SEGMENT DISTANCE (FT)	AREA (SQ FT)	FLOW (CFPS)
0.00	1.13	0.00	0.20	0.00	1.13	--	--
2.25	3.38	0.40	0.61	0.03	2.25	1.37	0.04
4.50	5.63	0.83	0.88	0.10	2.25	1.68	0.16
6.75	7.92	0.92	0.46	0.16	2.29	1.53	0.25
9.08	9.08	0.00	0.00	0.00	1.17	0.27	0.00
TOTAL =							0.46

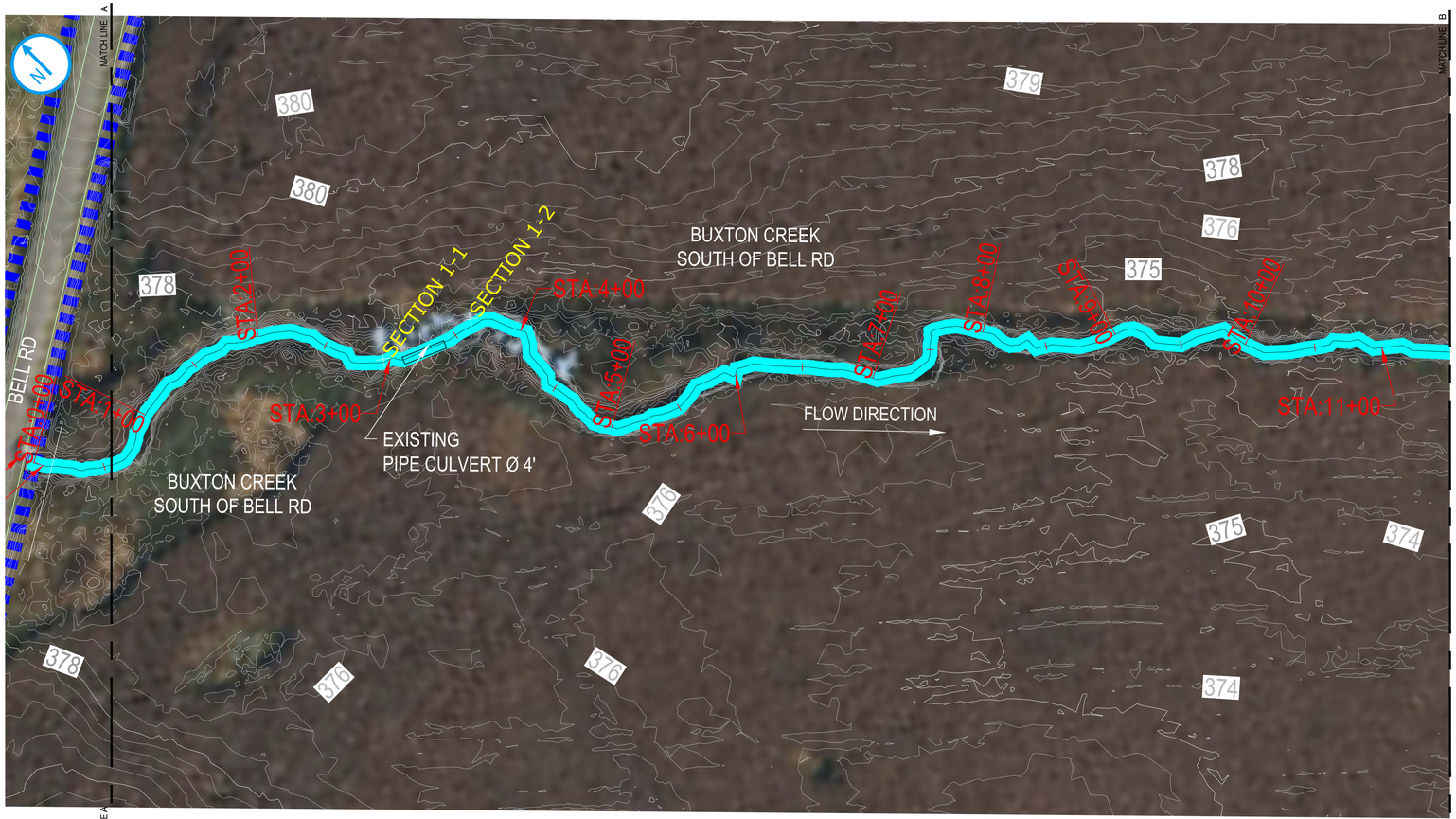
*DISTANCE IS MEASURED FROM NEAR BANK: GREATEST DISTANCE IS STREAM WIDTH.
**VELOCITY MEASUREMENTS AT 60% OF MAXIMUM STREAM DEPTH.
STREAM WIDTH = 9.0 FT AT THE LOCATION OF MEASUREMENTS.
LOCATION : NORTH OF BELL RD (SECTION 3-1)
MEASUREMENT DATE: 11/13/2024

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 1/21/2025

NO.	REV DATE	REVISION	INT.

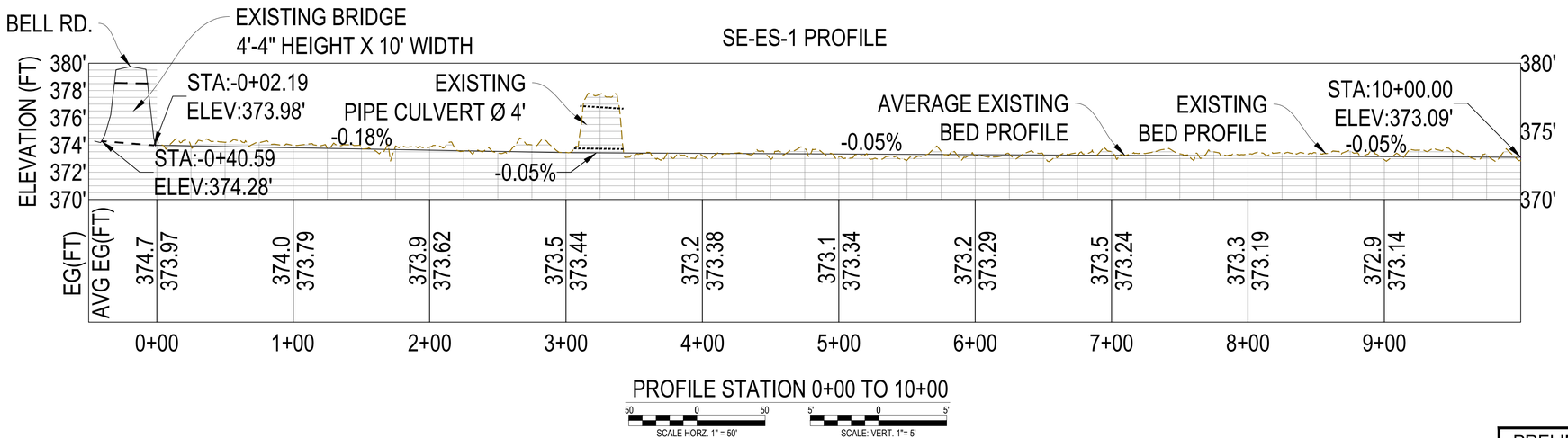
Project Details: THE WETLAND TRUST; STREAM MITIGATION; Bell Rd, Pennellville, NY 13132; ####	Drawing Title: EXISTING PLAN & PROFILE NE-ES-1				### ### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####					
Project Number 1940111895	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number C-101			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTORATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NE & SE.DWG



EXISTING PLAN & PROFILE SE-ES-1

SCALE: 1"=50'



PROFILE STATION 0+00 TO 10+00

SCALE HORZ. 1" = 50'

SCALE: VERT. 1"= 5'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

Point Table

Point #	Elevation (FT)	Northing	Easting	Description
1	373.65	1197435.98	915479.83	SECTION 1-1
2	374.65	1197402.68	915537.78	SECTION 1-2
3	374.58	1196380.77	916083.78	SECTION 2-1
4	374.89	1197976.36	915040.04	SECTION 3-1

TABLE C102-1 BUXTON CREEK (SOUTH OF BELL RD)

MEASUREMENT LOCATION SECTION 1-1

BASEFLOW CONDITIONS

MEASURED FLOW DATA

DISTANCE * (FT)	DISTANCE (FT)	DEPTH (FT)	DEPTH (FT)	60% OF MAX**	SEGMENT DISTANCE (FT)	AREA (SQ FT)	FLOW (CFPS)
0.00	0.63	0.00	0.24	0.00	0.63		--
1.25	1.88	0.48	0.59	0.26	1.25	0.78	0.20
2.50	3.13	0.69	0.76	0.49	1.25	0.85	0.42
3.75	4.38	0.83	0.42	0.26	1.25	0.74	0.19
5.00	5.00	0.00	0.00	0.00	0.63	0.13	0.00
TOTAL =							0.81

SECTION 1-2

DISTANCE * (FT)	DISTANCE (FT)	DEPTH (FT)	DEPTH (FT)	60% OF MAX**	SEGMENT DISTANCE (FT)	ARE A (SQ FT)	FLOW (CFPS)
0.00	0.83	0.00	0.31	0.00	0.83		--
1.67	2.50	0.63	0.77	0.16	1.67	1.35	0.22
3.33	4.17	0.92	1.01	0.07	1.67	1.48	0.10
5.00	5.75	1.10	0.55	0.46	1.58	1.24	0.57
6.50	6.50	0.00	0.00	0.00	0.75	0.21	0.00
TOTAL =							0.89

*DISTANCE IS MEASURED FROM NEAR BANK: GREATEST DISTANCE IS STREAM WIDTH.
**VELOCITY MEASUREMENTS AT 60% OF MAXIMUM STREAM DEPTH.
STREAM WIDTH = 5.0 FT AT LOCATION OF MEASUREMENTS.
LOCATION : NORTH OF BELL RD (SECTION 1-1), 6.5 FT (SECTION 1-2)
MEASUREMENT DATE: 11/13/2024

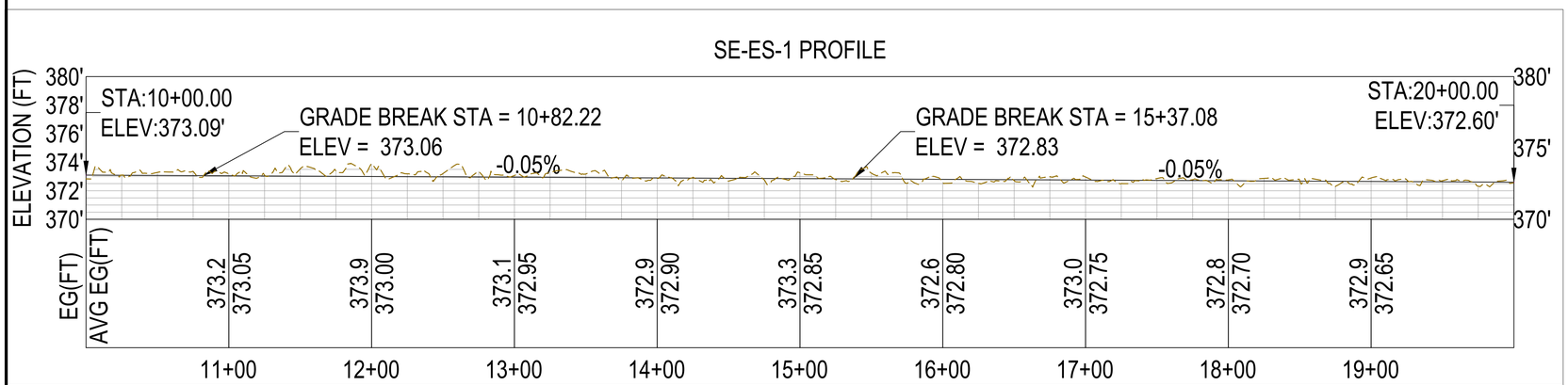
PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 1/21/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST**, STREAM MITIGATION, Bell Rd, Pennellville, NY 13132, ####	Drawing Title: **EXISTING PLAN & PROFILE SE-ES-1**			### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-102**			Scale AS NOTED	Sc x / Rev. x

EXISTING PLAN & PROFILE SE-ES-1

50 0 50
SCALE: 1"=50'



PROFILE STATION 10+00 TO 20+00

50 0 50
SCALE HORZ. 1" = 50'

5' 0 5'
SCALE: VERT. 1"= 5'

LEGEND:
- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

Point Table

Point #	Elevation (FT)	Northing	Easting	Description
1	373.65	1197435.98	915479.83	SECTION 1-1
2	374.65	1197402.68	915537.78	SECTION 1-2
3	374.58	1196380.77	916083.78	SECTION 2-1
4	374.89	1197976.36	915040.04	SECTION 3-1

TABLE C-103-1 BUXTON CREEK (SOUTH OF BELL RD)

MEASUREMENT LOCATION: SECTION 2-1

BASEFLOW CONDITIONS

MEASURED FLOW DATA

DISTANCE * (FT)	DISTANCE (FT)	DEPTH (FT)	DEPTH (FT)	60% OF MAX**	SEGMENT DISTANCE (FT)	AREA (SQ FT)	FLOW (CFPS)
0.00	0.92	0.00	0.23	0.00	0.92	--	--
1.83	2.75	0.46	0.58	0.10	1.83	1.12	0.11
3.67	4.58	0.71	0.66	0.30	1.83	1.14	0.34
5.50	6.42	0.60	0.30	0.16	1.83	0.88	0.14
7.33	7.33	0.00	0.00	0.00	0.92	0.14	0.00
TOTAL =							0.59

*DISTANCE IS MEASURED FROM NEAR BANK: GREATEST DISTANCE IS STREAM WIDTH.
**VELOCITY MEASUREMENTS AT 60% OF MAXIMUM STREAM DEPTH.
STREAM WIDTH = 7.3 FT AT LOCATION OF MEASUREMENTS
LOCATION : NORTH OF BELL RD
MEASUREMENT DATE: 11/13/2024

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 1/21/2025

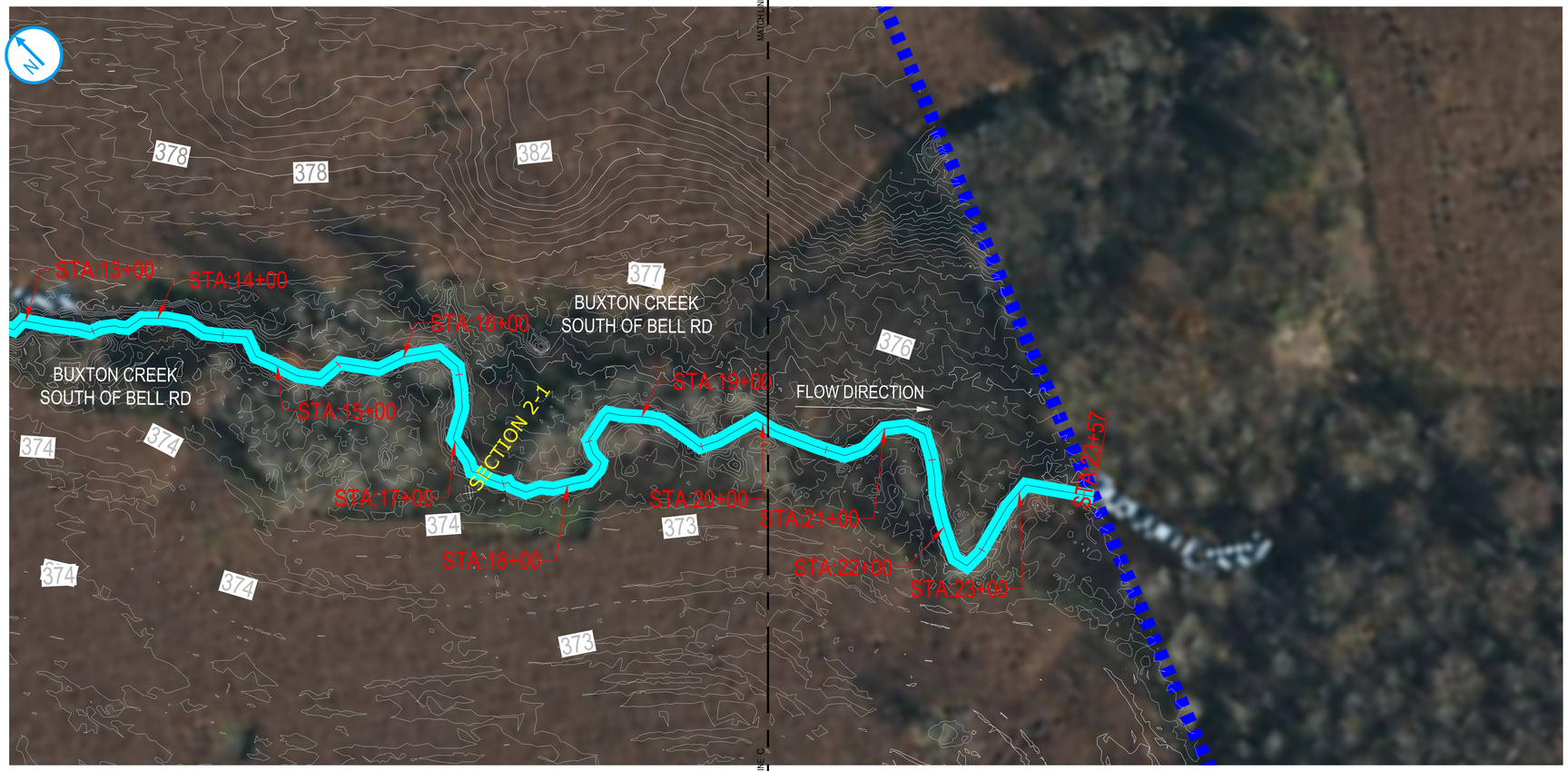
NO.	REV DATE	REVISION	INT.

Project Details
THE WETLAND TRUST
STREAM MITIGATION
Bell Rd, Pennellville, NY 13132
####

Drawing Title
EXISTING PLAN & PROFILE SE-ES-1

Location: NEW YORK
Designer / Professional Engineer Responsible: ####
Project Number **1940111895**
Designed by S.M. Ahmadi | Drawn by S.M. Ahmadi | Checked by K. Buelow | Approved by P. Domaszczynski | Date
Project Status ####
Drawing Number **C-103**
Scale AS NOTED | Sc x | Rev. x

SAVED: 3/6/25 2:06 PM



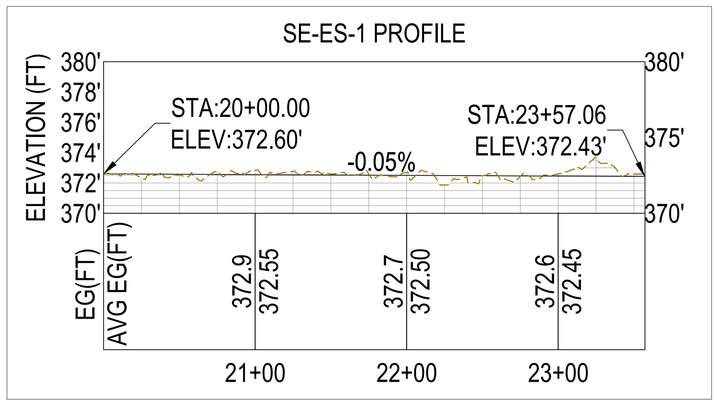
LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

EXISTING PLAN & PROFILE SE-ES-1

50 0 50

SCALE: 1"=50'



PROFILE STATION 20+00 TO 24+00

50 0 50

SCALE HORZ. 1" = 50'

5' 0 5'

SCALE: VERT. 1"= 5'

NO.	REV DATE	REVISION	INT.

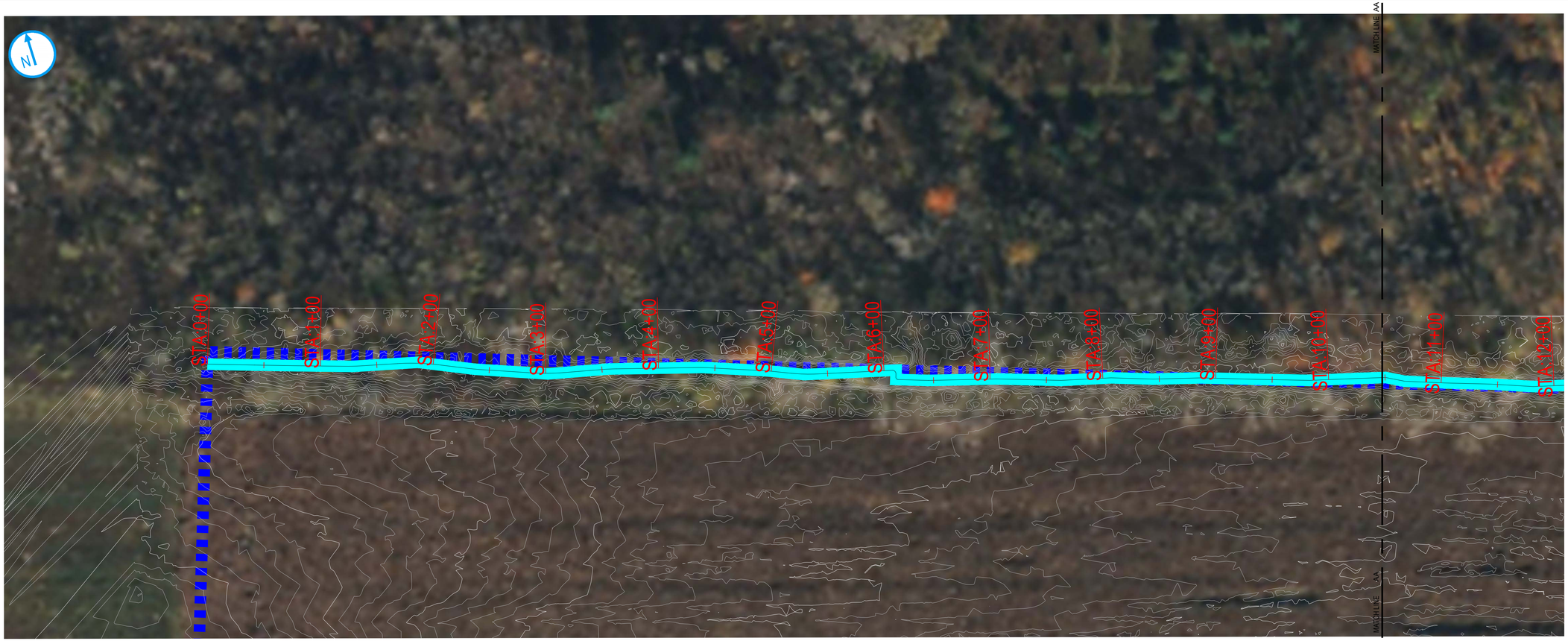
PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 1/21/2025

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING PLAN & PROFILE SE-ES-1**				### ### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####					
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-104**			Scale AS NOTED	Sc x	Rev. x

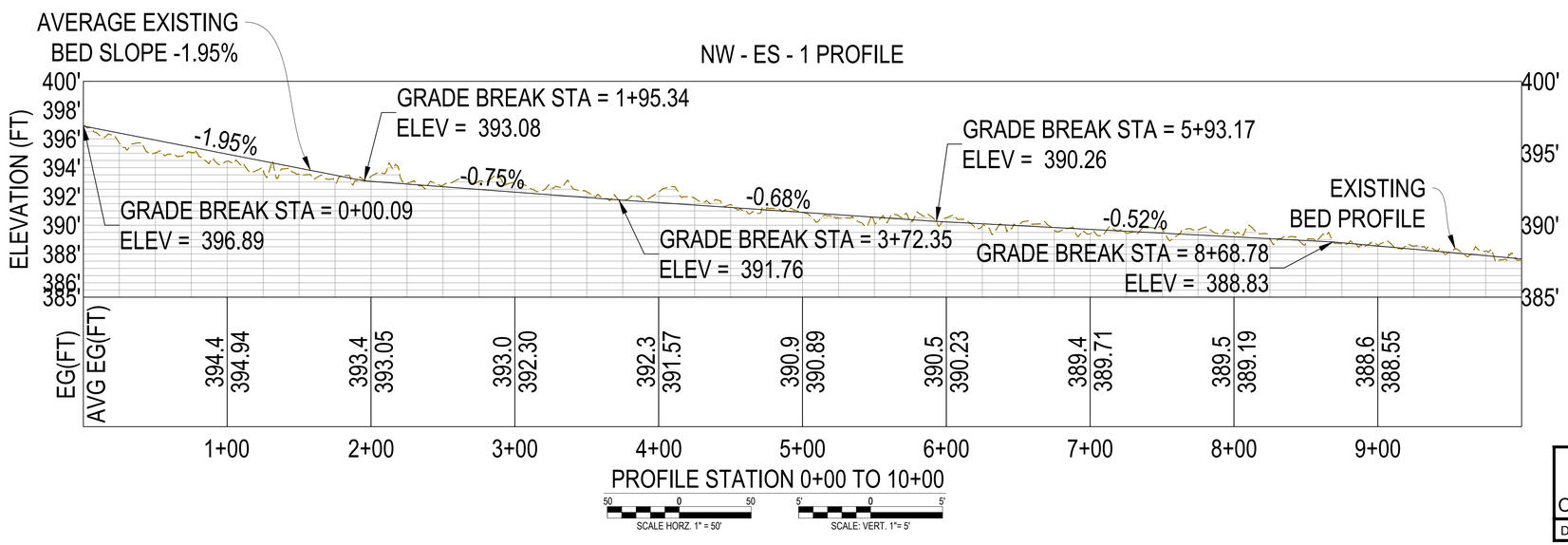
C:\USERS\SAHAMADI\DOWNLOADS\STREAM RESTOTRATION - MICROND\GIS\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NE & SE.DWG

SAVED: 3/6/25 2:05 PM



EXISTING PLAN & PROFILE NW - ES - 1

50 0 50
SCALE: 1"=50'



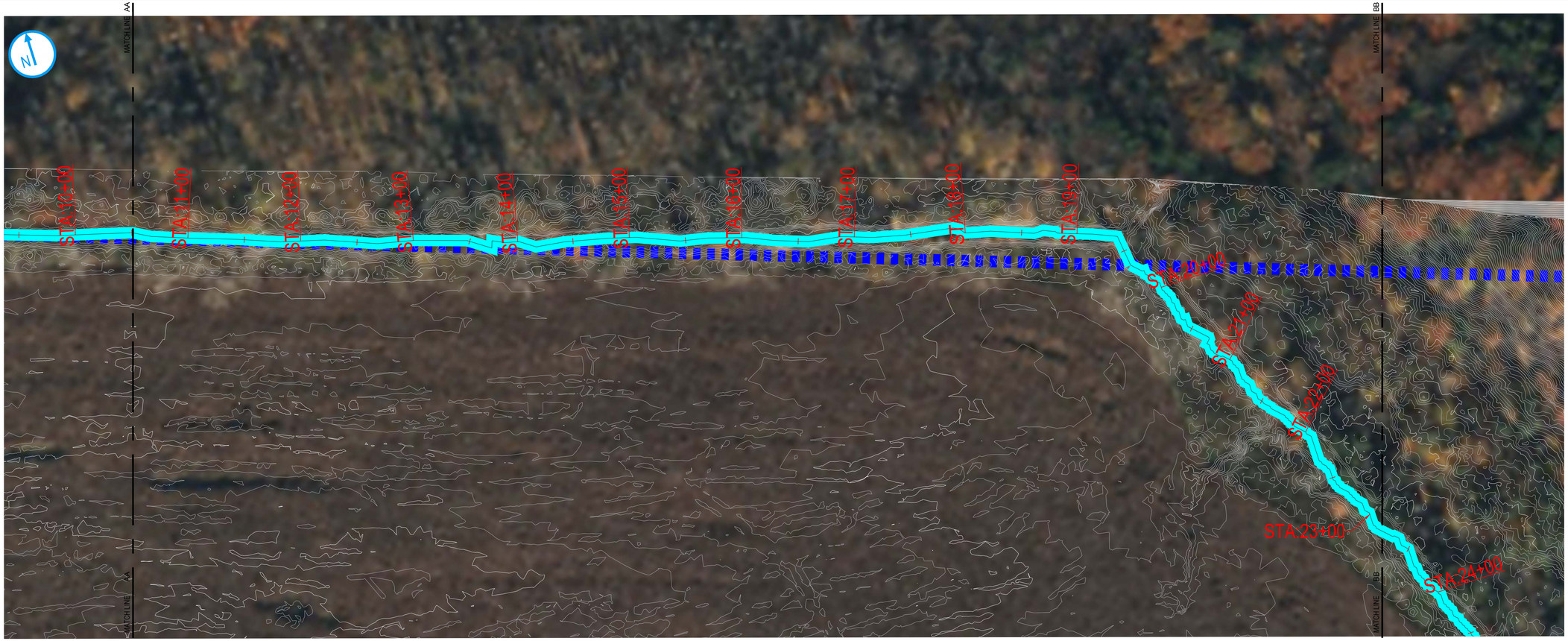
NO.	REV DATE	REVISION	INT.

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 2/14/2025

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**EXISTING PLAN & PROFILE NW - ES - 1**		### ###
Location: NEW YORK	Designer / Professional Engineer Responsible: ####		###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-105**		Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NW.DWG

SAVED: 3/6/25 2:05 PM

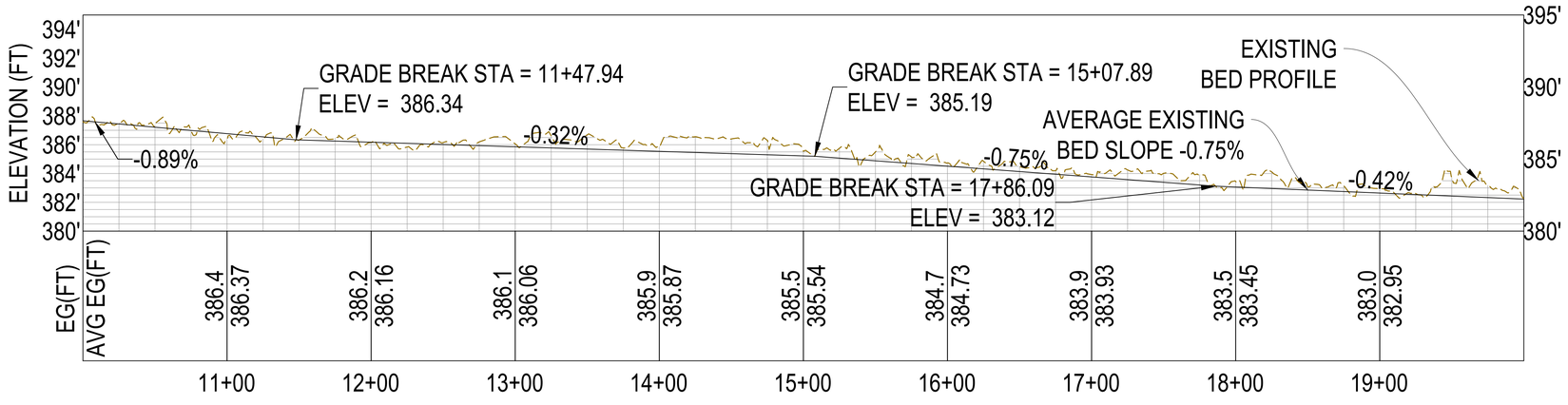


LEGEND:
- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

EXISTING PLAN & PROFILE NW - ES - 1

50 0 50
SCALE: 1"=50'

NW - ES - 1 PROFILE



PROFILE STATION 10+00 TO 20+00

50 0 50
SCALE HORZ. 1" = 50'

5' 0 5'
SCALE: VERT. 1"= 5'

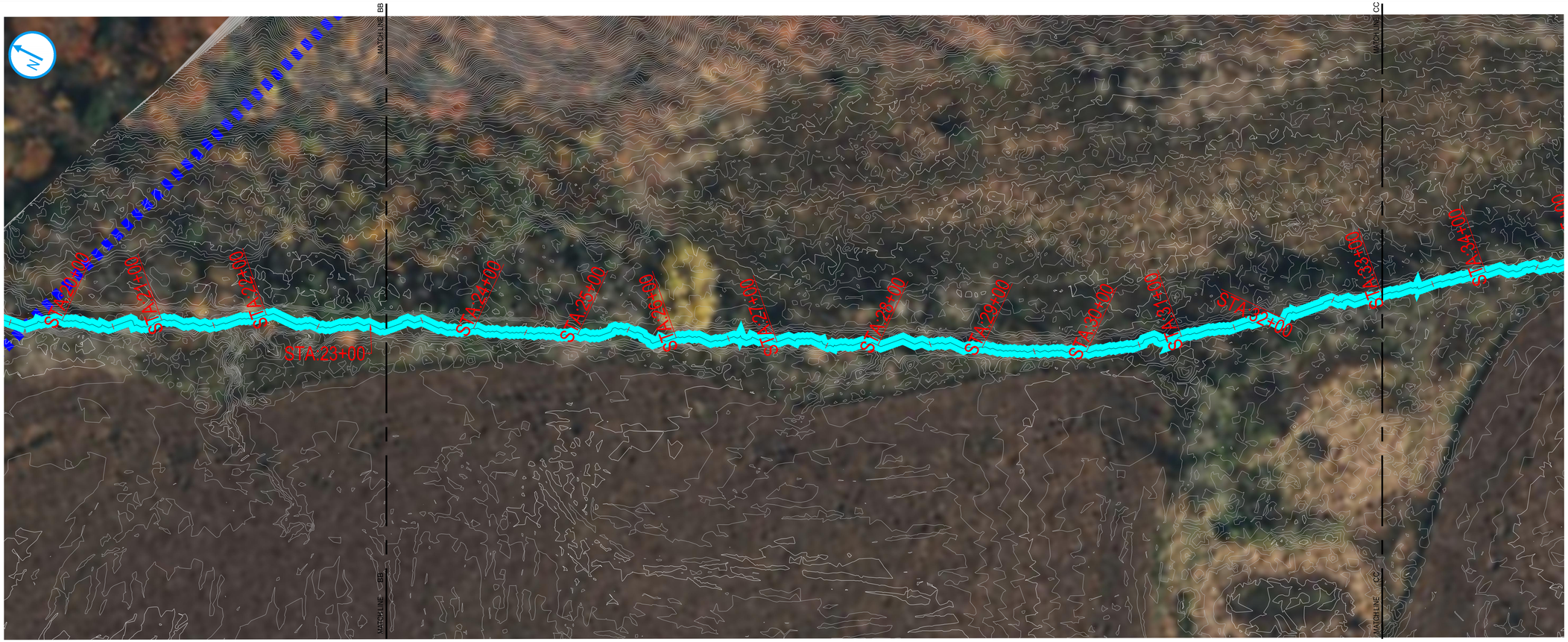
PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 2/14/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING PLAN & PROFILE NW - ES - 1**				### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####				###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-106**			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NW.DWG

SAVED: 3/6/25 2:05 PM



LEGEND:

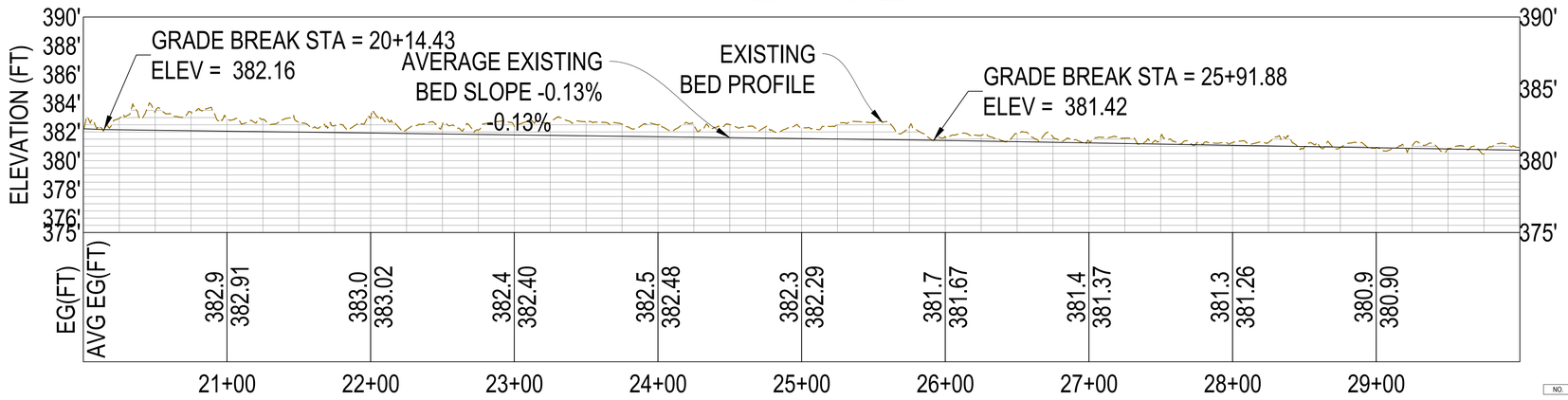
- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

EXISTING PLAN & PROFILE NW - ES - 1

50 0 50

SCALE: 1"=50'

NW - ES - 1 PROFILE



PROFILE STATION 20+00 TO 30+00

50 0 50

SCALE HORZ. 1" = 50'

5' 0 5'

SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/14/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING PLAN & PROFILE NW - ES - 1**			### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-107**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NW.DWG

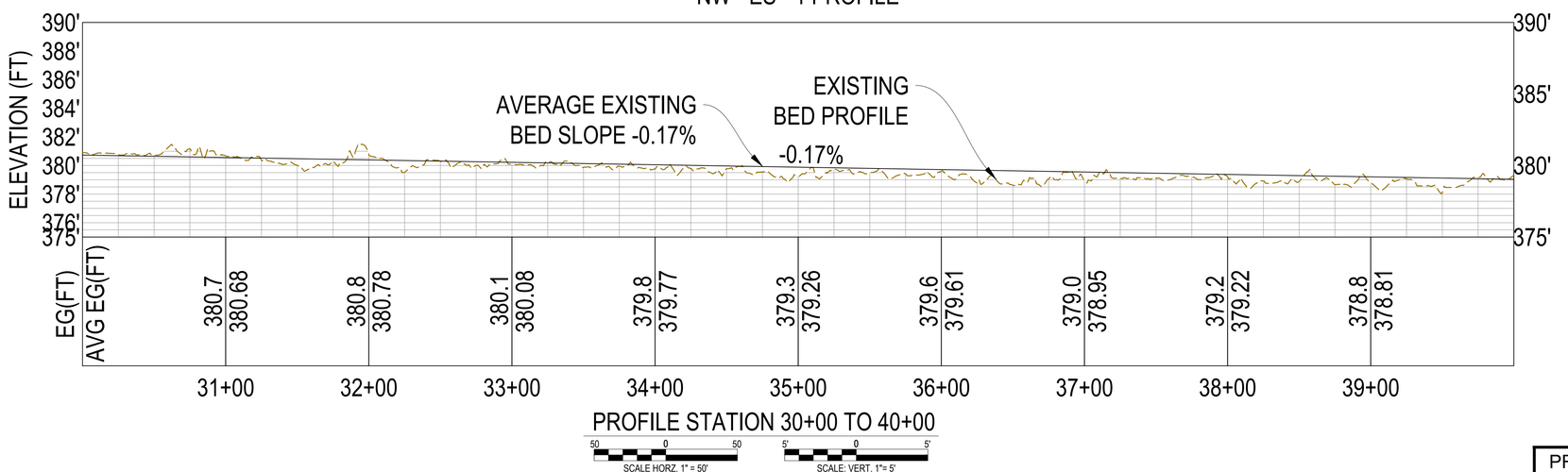
SAVED: 3/6/25 2:05 PM

LEGEND:
- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

EXISTING PLAN & PROFILE NW - ES - 1

50 0 50
SCALE: 1"=50'

NW - ES - 1 PROFILE



PROFILE STATION 30+00 TO 40+00

50 0 50
SCALE HORZ. 1" = 50'

5' 0 5'
SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/14/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING PLAN & PROFILE NW - ES - 1**				### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####				###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-108**			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NW.DWG

SAVED: 3/6/25 2:05 PM

LEGEND:

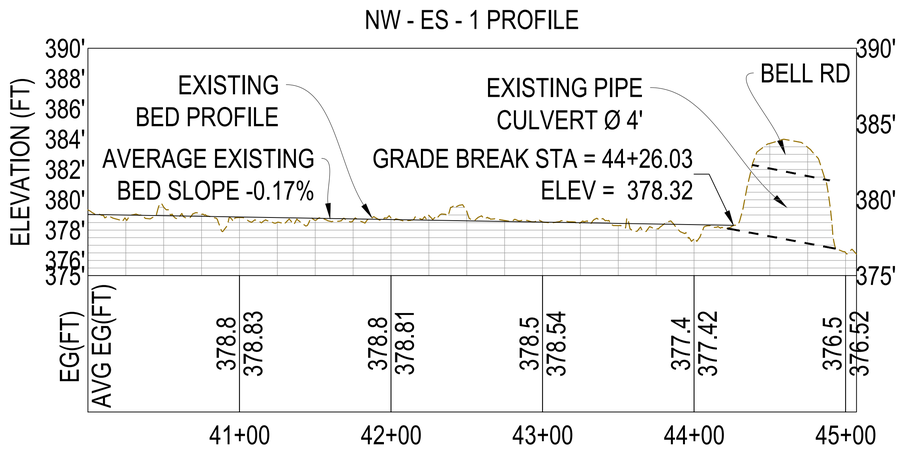
- PROPERTY BOUNDARY (APPROXIMATE)
- EXISTING STREAM ALIGNMENT

EXISTING PLAN & PROFILE NW - ES - 1

50 0 50

SCALE: 1"=50'

NW - ES - 1 PROFILE



PROFILE STATION 40+00 TO 50+00

50 0 50

SCALE HORZ. 1" = 50'

5' 0 5'

SCALE: VERT. 1"= 5'

NO.	REV DATE	REVISION	INT.

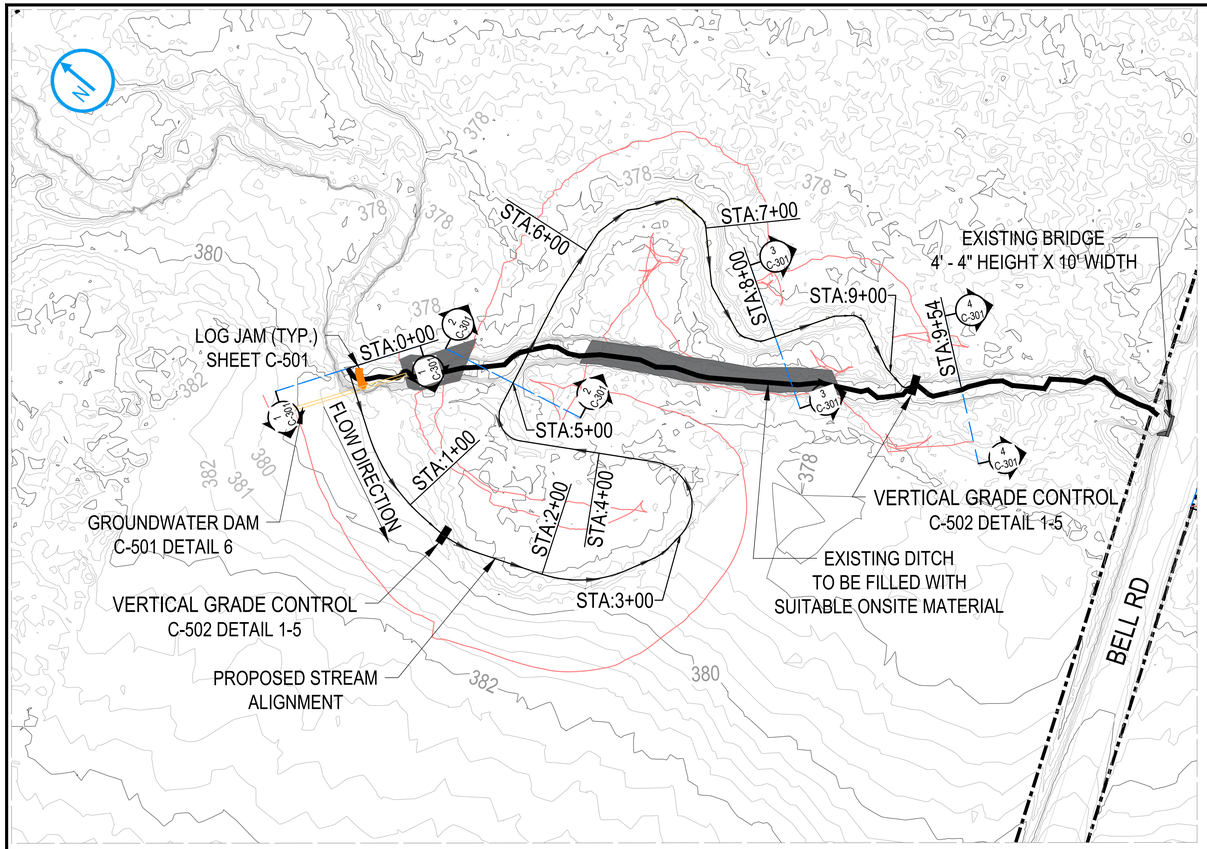
PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/14/2025

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **EXISTING PLAN & PROFILE NW - ES - 1**			### ### ###	
Location: NEW YORK	Designer / Professional Engineer Responsible: ####				
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-109**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\EXISTING PLAN AND PROFILES NW.DWG

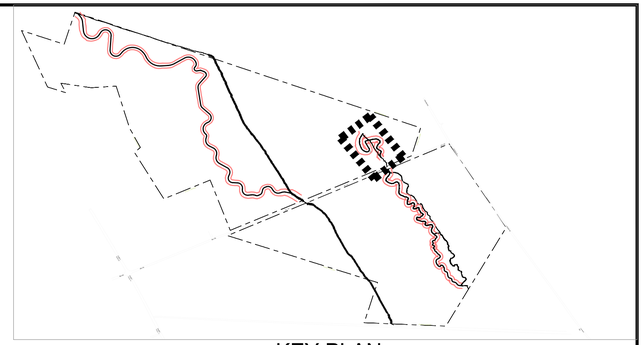
SAVED: 3/7/25 12:24 PM



PROPOSED PLAN & PROFILE NE-DS - 1

50 0 50

SCALE: 1"=50'



KEY PLAN

1000 0 1000

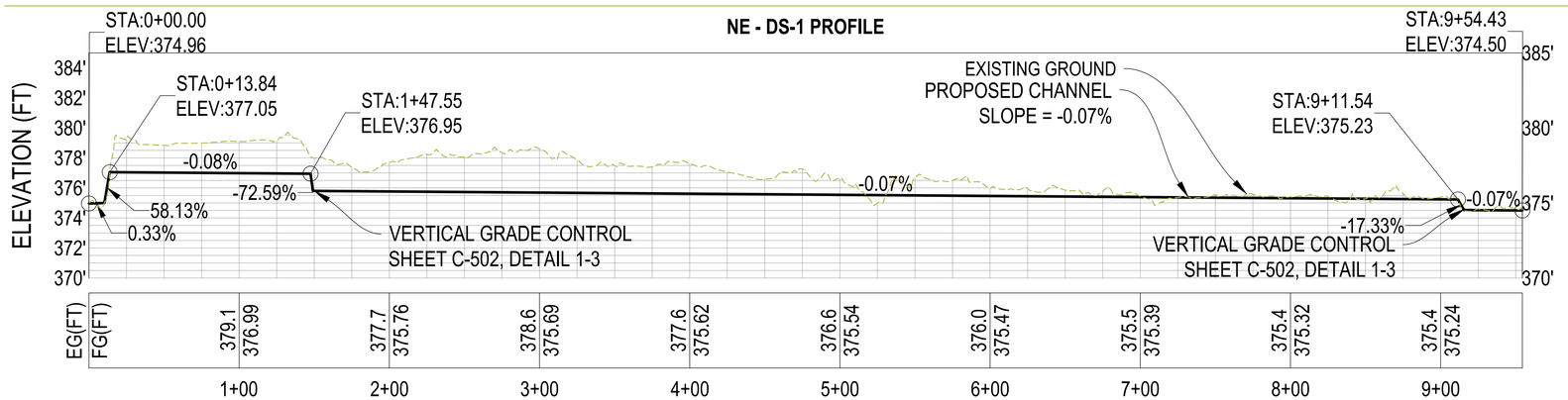
SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

NOTES:

1. THE PROPOSED STREAM AND FLOODPLAIN IS DESIGNED TO MAINTAIN THE VOLUME OF FLOW ENTERING AND EXITING THE SITE AS TO EXISTING CONDITION.
2. EXISTING DITCH IS TO BE FILLED AS SHOWN ON THE PLANS USING ONSITE SUITABLE MATERIAL.
3. NO WORK IS PROPOSED IN THE VICINITY OF THE BELL RD BRIDGE. THE BRIDGE WILL REMAIN UNCHANGED, AND THE STREAM HYDROLOGY AT BRIDGE LOCATION IS NOT EXPECTED TO BE AFFECTED BY THE PROPOSED WORK.



PROFILE STATION 0+00 TO 10+00

50 0 50 — SCALE HORZ. 1" = 50'

5' 0 5' — SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/24/2025

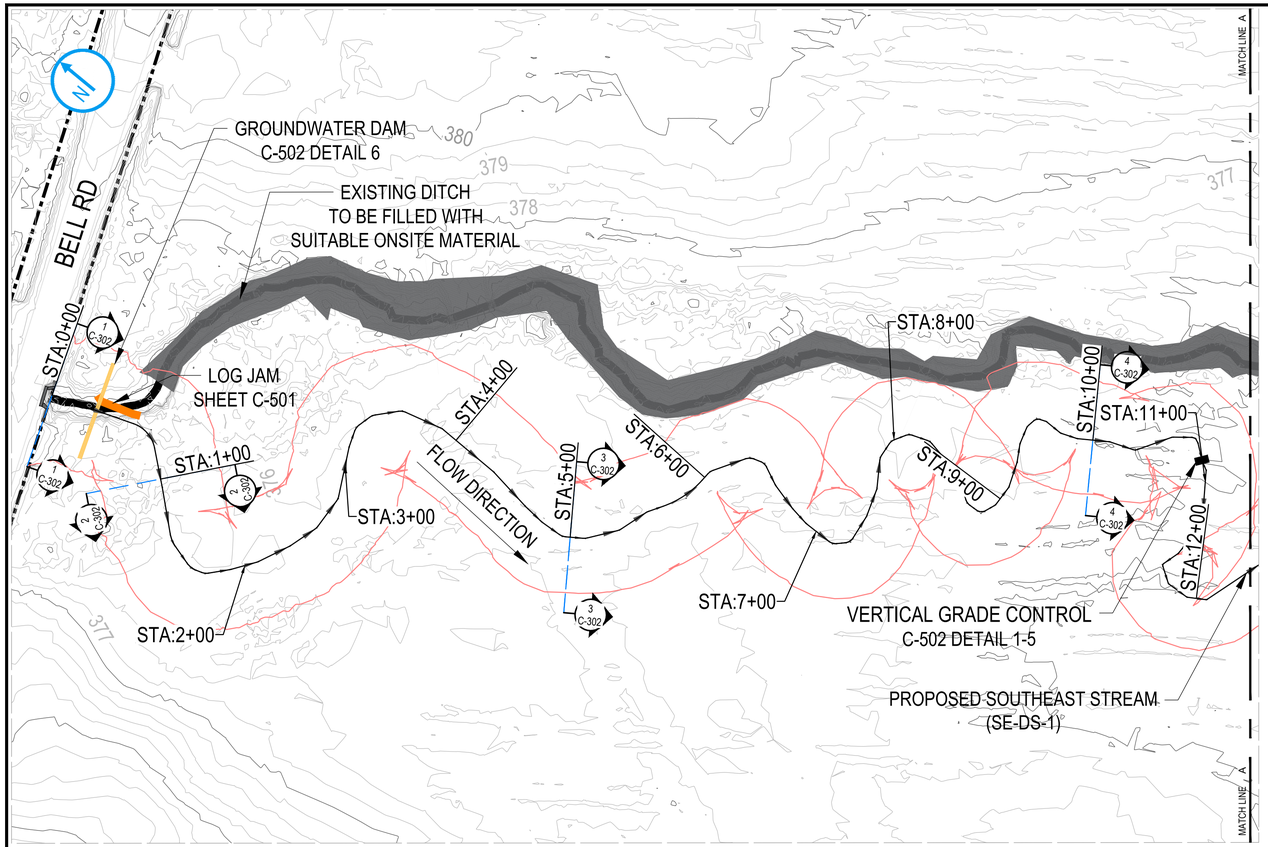
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NE-DS - 1**				### ###
Location: ####	Designer / Professional Engineer Responsible: ####				###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-110**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

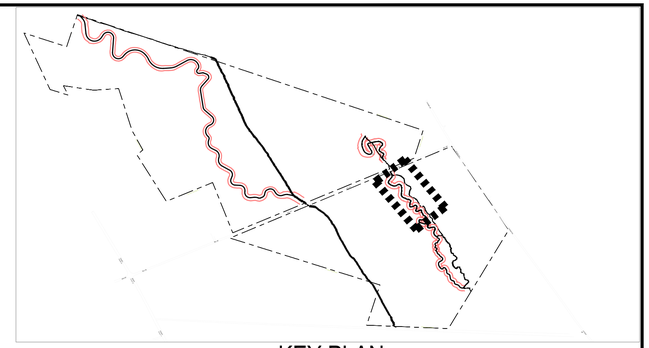
SAVED: 3/7/25 12:24 PM



PROPOSED PLAN VIEW - SE - DS - 1

50 0 50

SCALE: 1"=50'



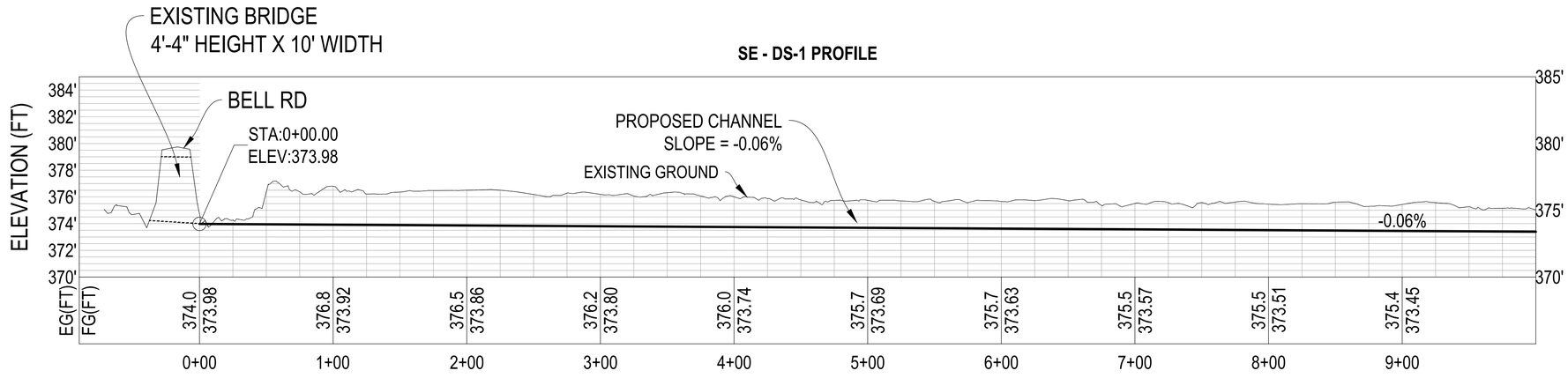
KEY PLAN

1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK



PROFILE STATION 0+00 TO 10+00

50 0 50

SCALE HORZ. 1" = 50'

5' 0 5'

SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

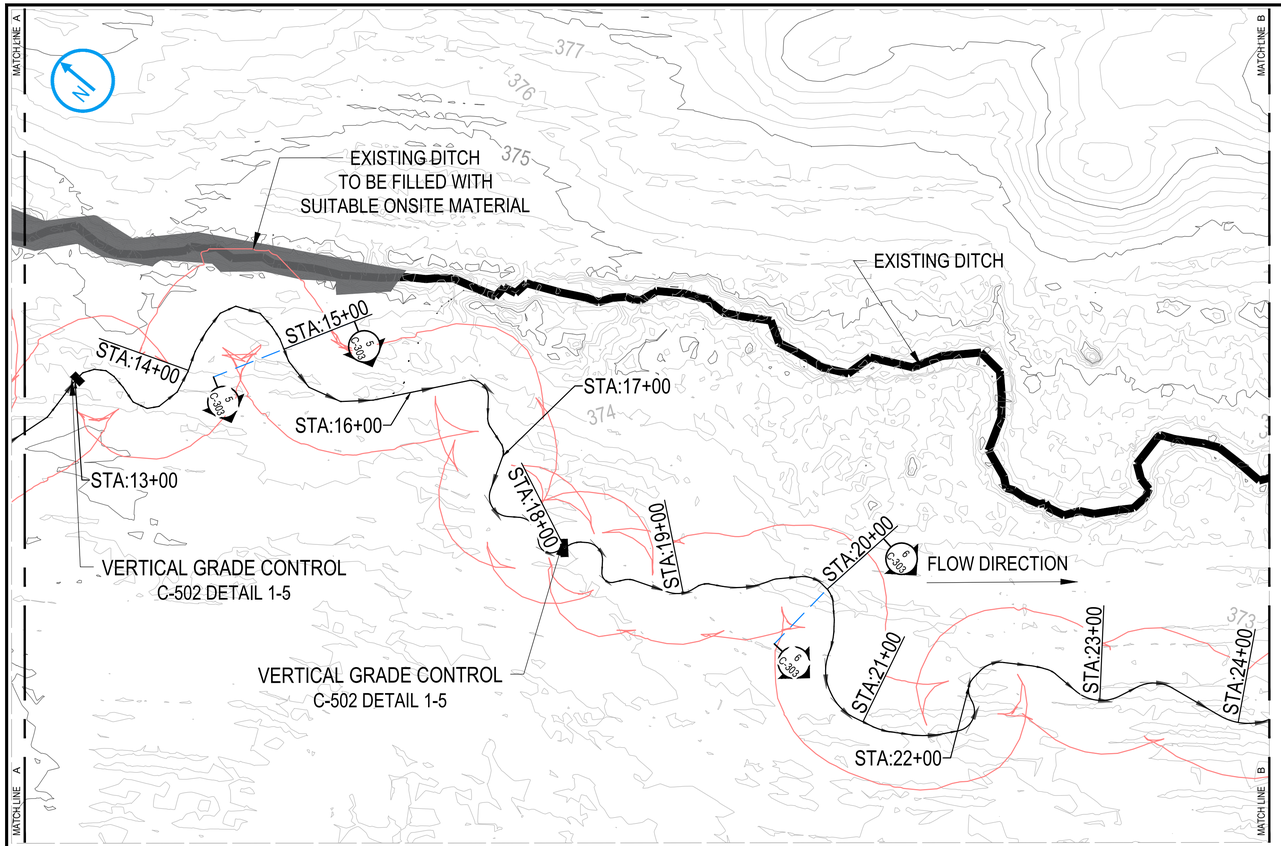
DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

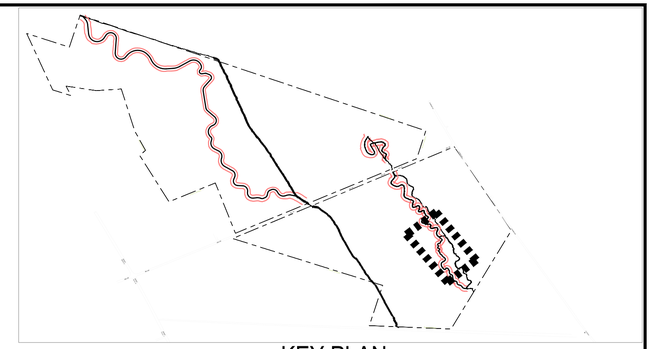
Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE SE - DS - 1**				### ### ###	
Location: ####	Designer / Professional Engineer Responsible: ####					
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-111**			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD RW\PROPOSED PLAN AND PROFILES SE & NW.DWG



PROPOSED PLAN VIEW - SE - DS - 1

50 0 50
SCALE: 1"=50'



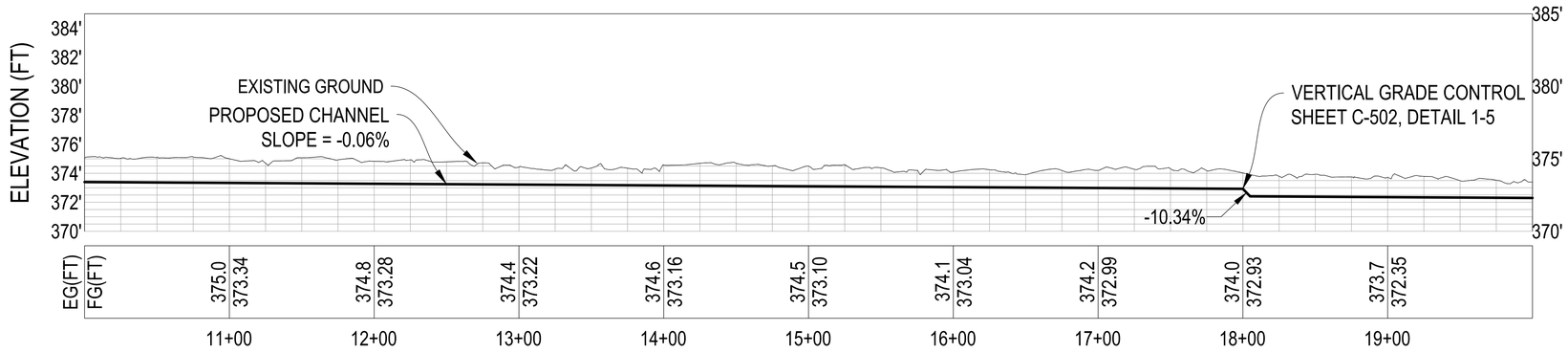
KEY PLAN

1000 0 1000
SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

SE - DS-1 PROFILE



PROFILE STATION 10+00 TO 20+00

50 0 50
SCALE HORZ. 1" = 50'

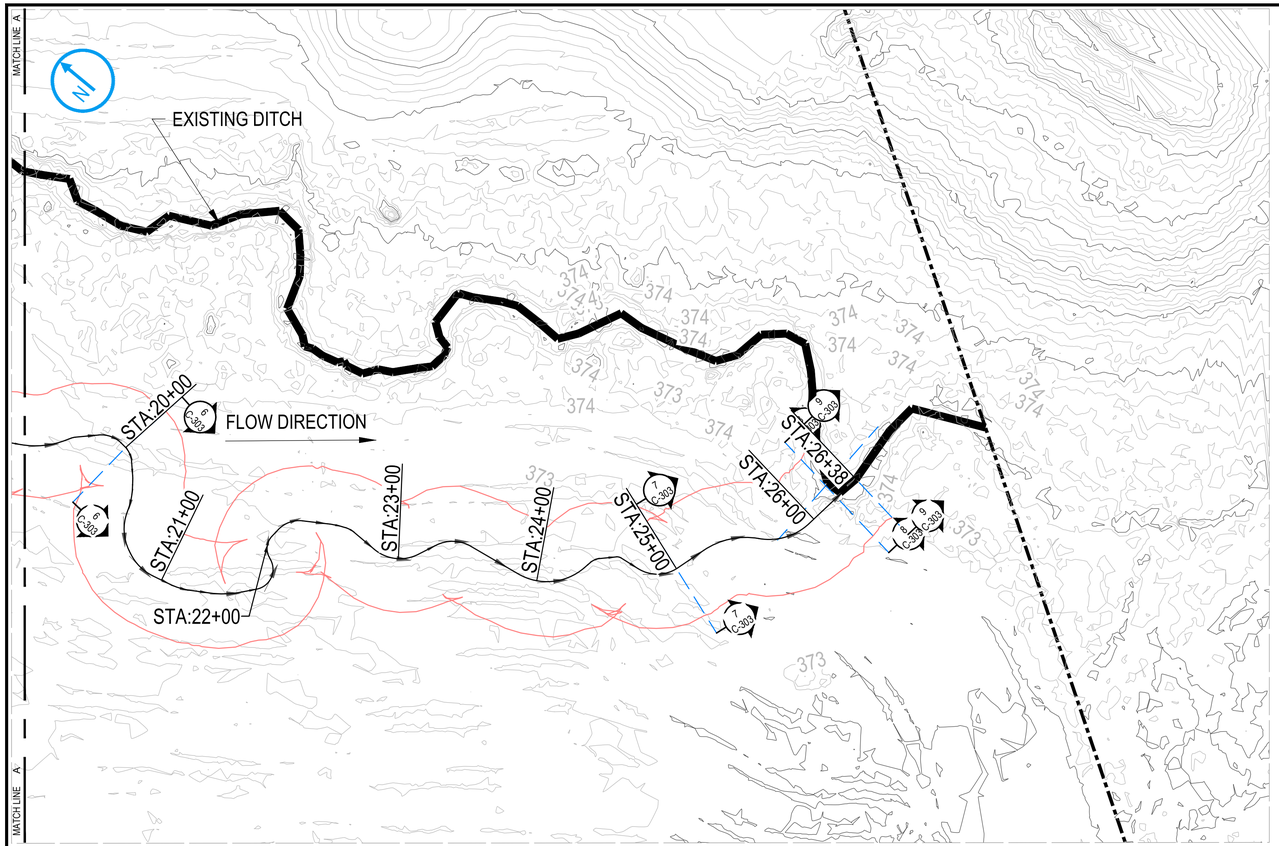
5' 0 5'
SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

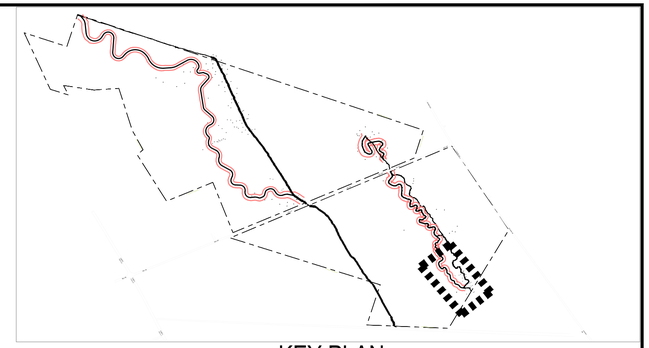
Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED PLAN & PROFILE SE - DS - 1**		### ###
Location: ####	Designer / Professional Engineer Responsible: ####		###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-112**		Scale AS NOTED	Sc X	Rev. X



PROPOSED PLAN VIEW - SE - DS - 1

50 0 50

SCALE: 1"=50'



KEY PLAN

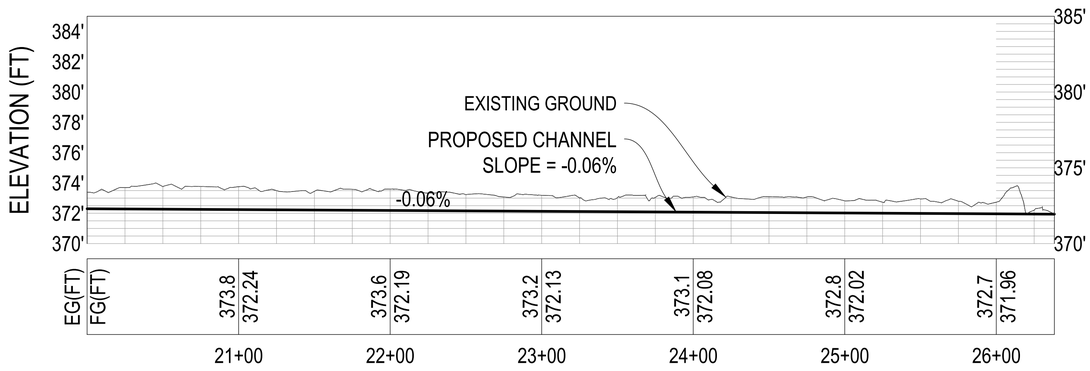
1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

SE - DS-1 PROFILE



PROFILE STATION 20+00 TO 26+50

50 0 50 SCALE HORZ. 1" = 50'

5' 0 5' SCALE: VERT. 1"= 5'

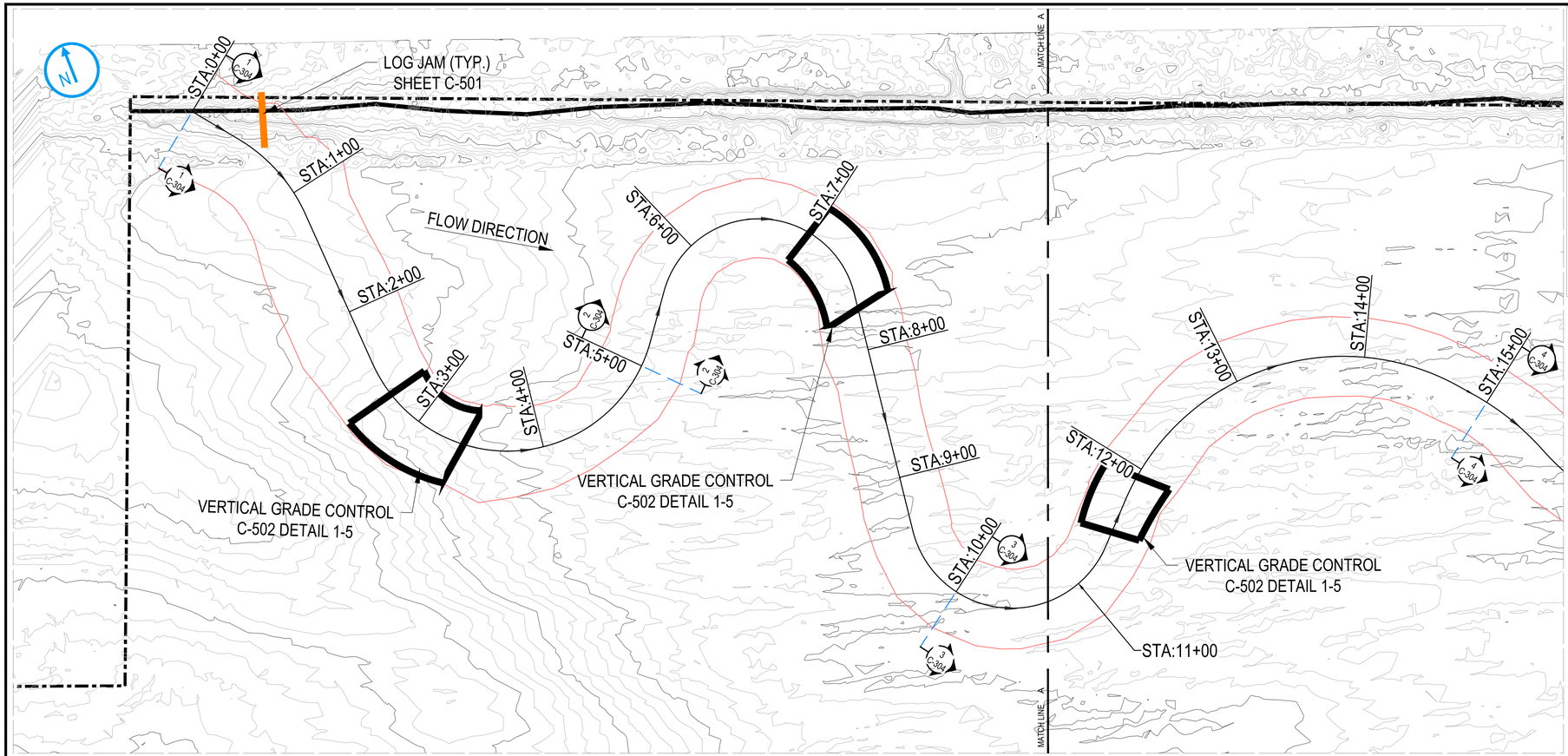
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

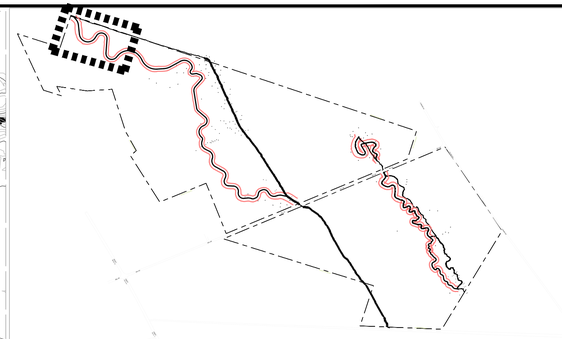
PRELIMINARY NOT FOR CONSTRUCTION

DATE: 2/24/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE SE - DS - 1**			### ###	
Location: ####	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-113**			Scale AS NOTED	Sc X / Rev. X





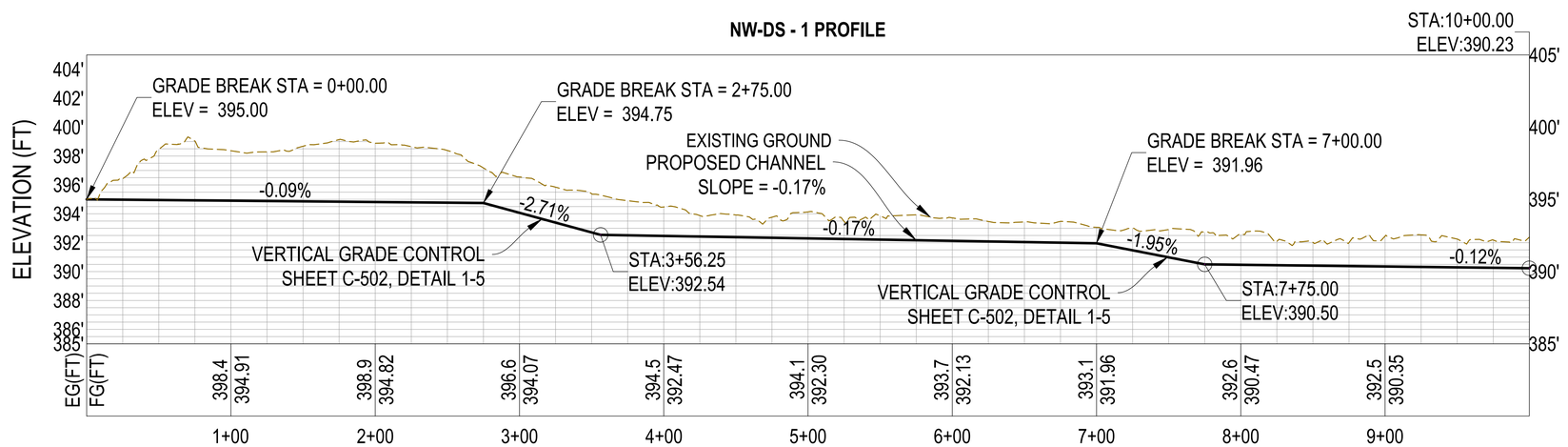
KEY PLAN

1000 0 1000
SCALE: 1"=1000'

LEGEND:
- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

PROPOSED PLAN VIEW NW - DS - 1

50 0 50
SCALE: 1"=50'



PROFILE STATION 1+00 TO 10+00

50 0 50
SCALE HORZ. 1" = 50'

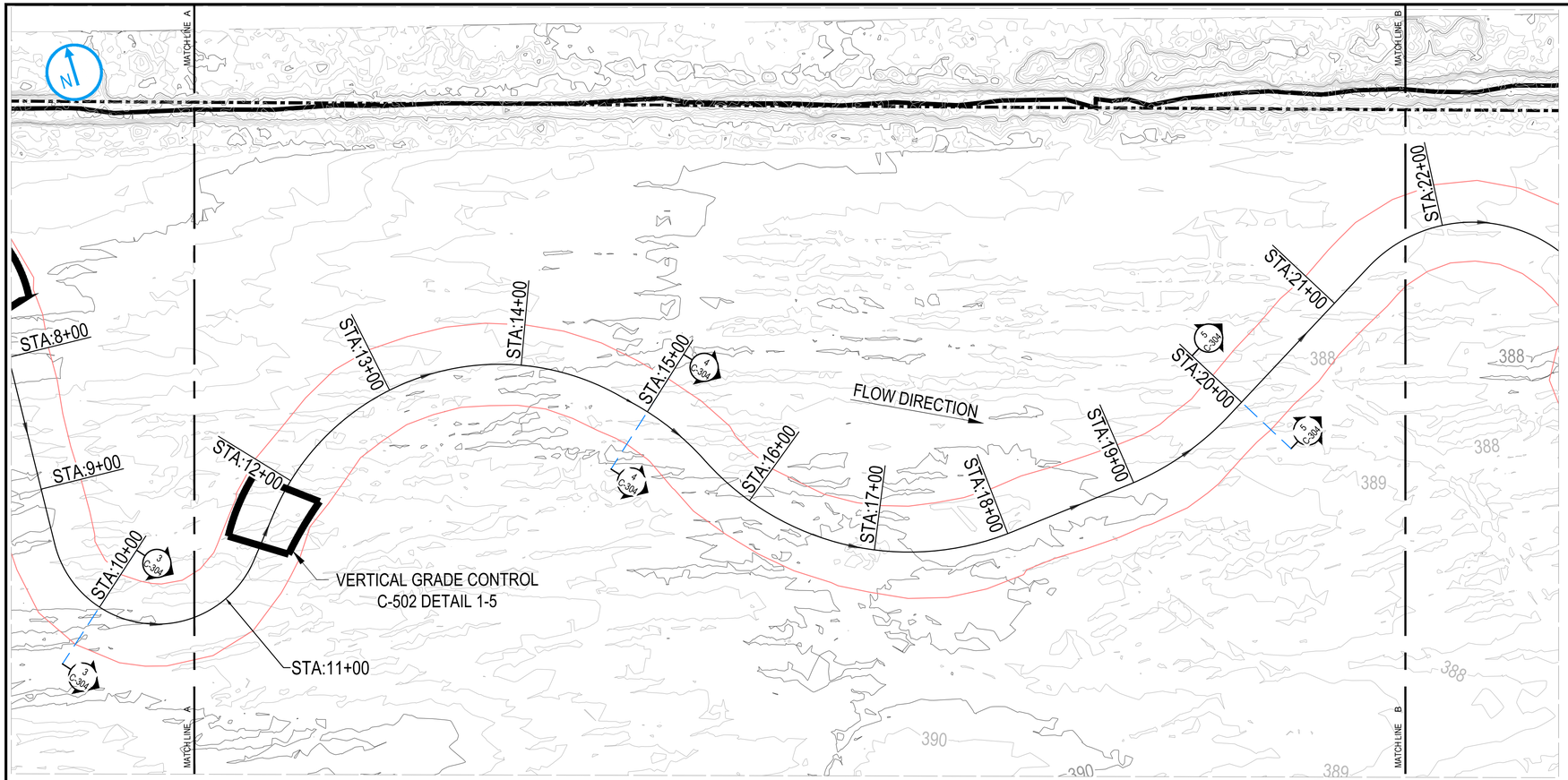
5' 0 5'
SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

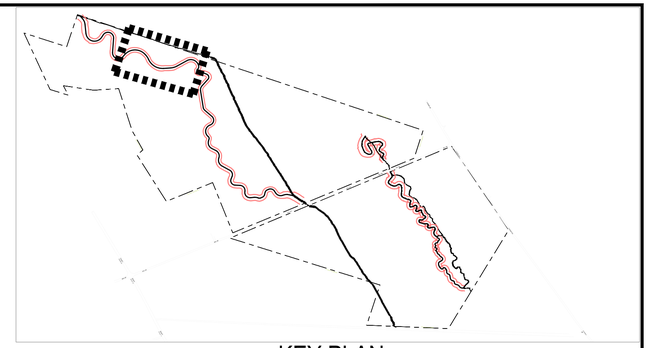
Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NW - DS - 1**				### ###	
Location: ####	Designer / Professional Engineer Responsible: ####				###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-114**			Scale AS NOTED	Sc x	Rev. x



PROPOSED PLAN VIEW - NW-DS - 1

50 0 50

SCALE: 1"=50'



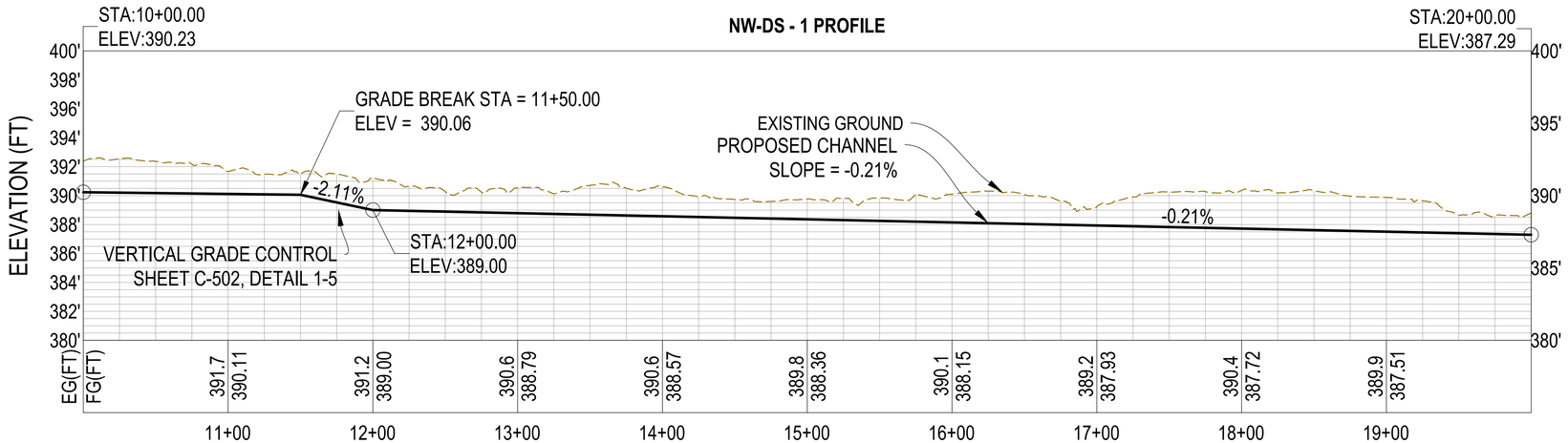
KEY PLAN

1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK



PROFILE STATION 10+00 TO 20+00

50 0 50 SCALE HORZ. 1" = 50'

5' 0 5' SCALE: VERT. 1"= 5'

NO.	REV DATE	REVISION	INT.

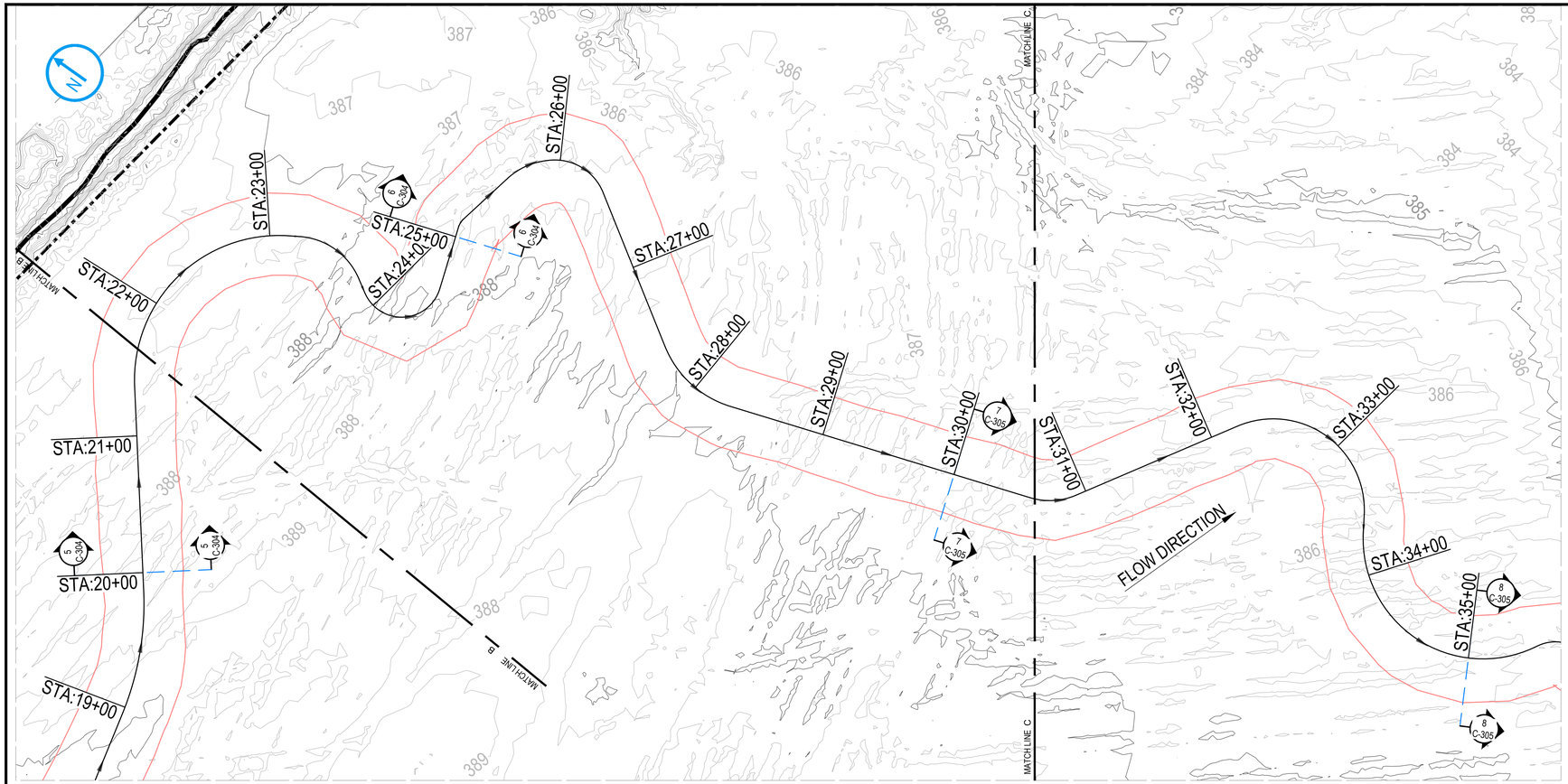
PRELIMINARY
NOT FOR
CONSTRUCTION

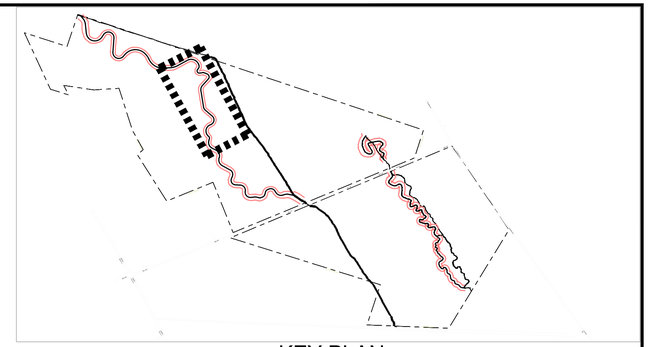
DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NW-DS - 1**				### ### ###
Location: ####	Designer / Professional Engineer Responsible: ####				
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-115**			Scale AS NOTED	Sc x / Rev. x

SAVED: 3/7/25 12:04 PM





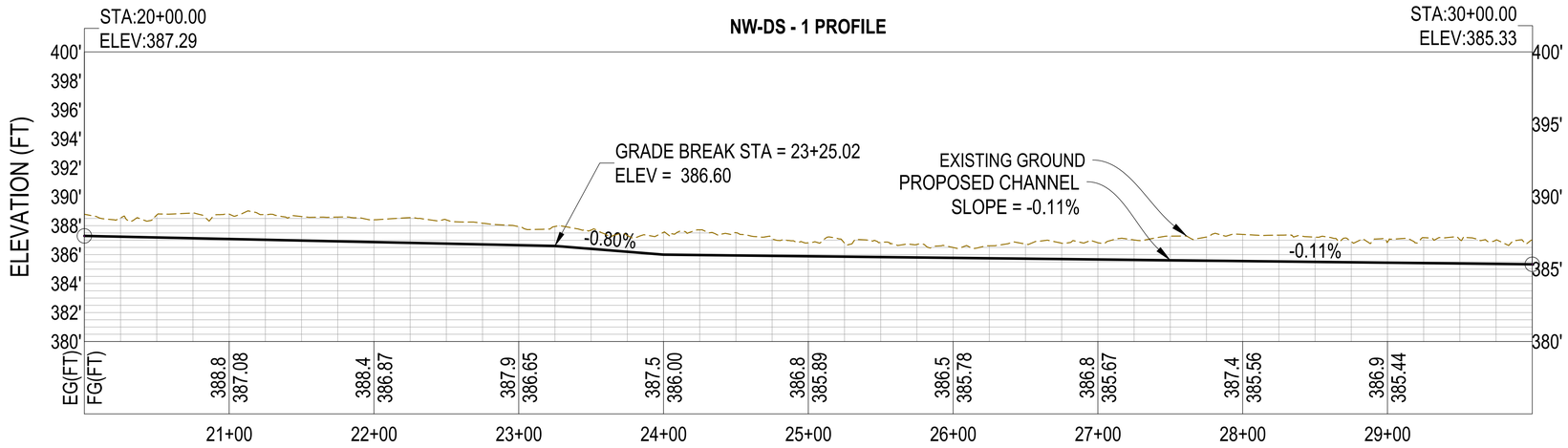
KEY PLAN

1000 0 1000
SCALE: 1"=1000'

LEGEND:
- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

PROPOSED PLAN VIEW - NW-DS - 1

50 0 50
SCALE: 1"=50'



PROFILE STATION 20+00 TO 30+00

50 0 50
SCALE HORZ. 1" = 50'

5' 0 5'
SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

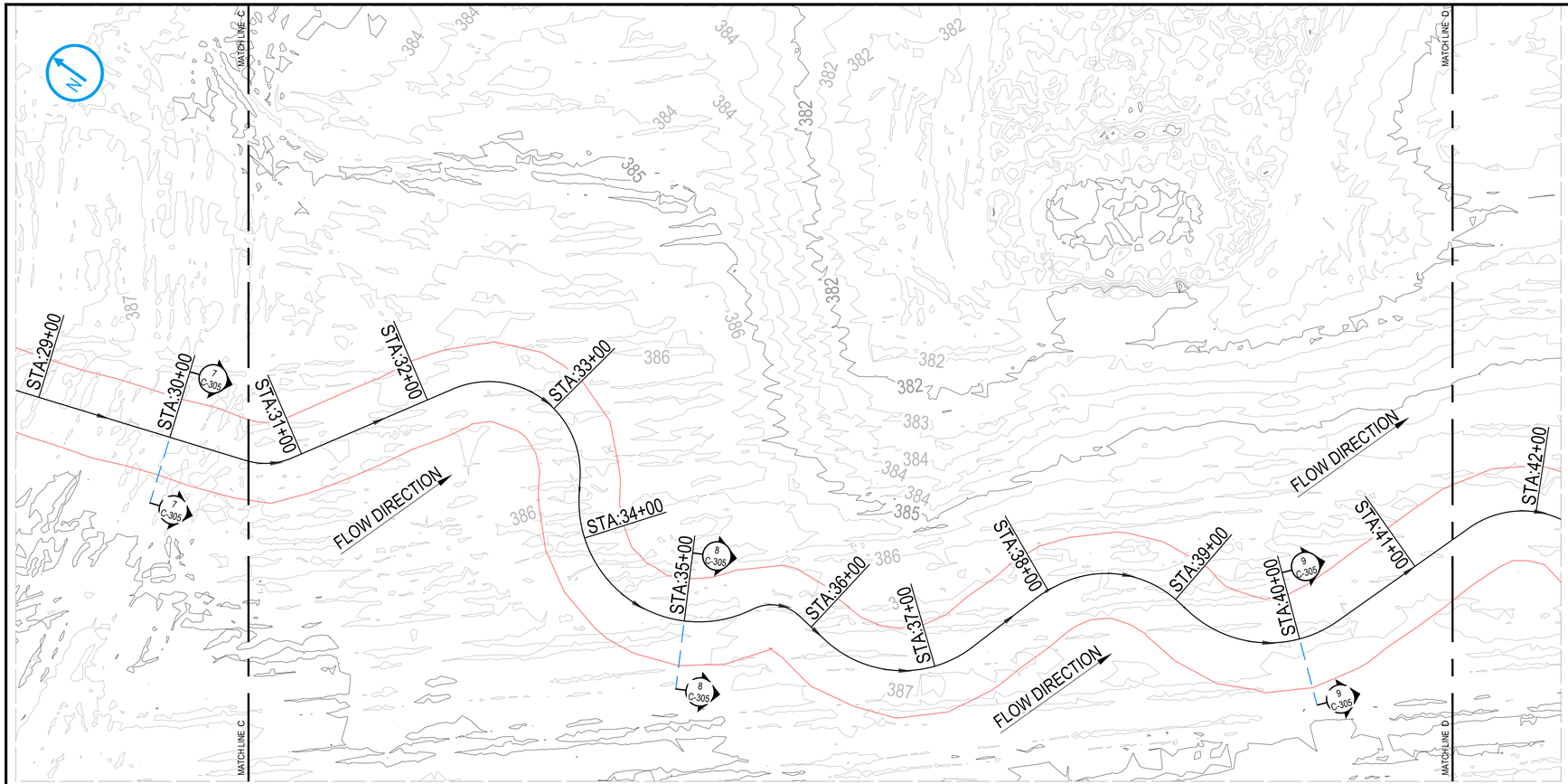
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NW-DS - 1**			### ###	
Location: ####	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-116**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

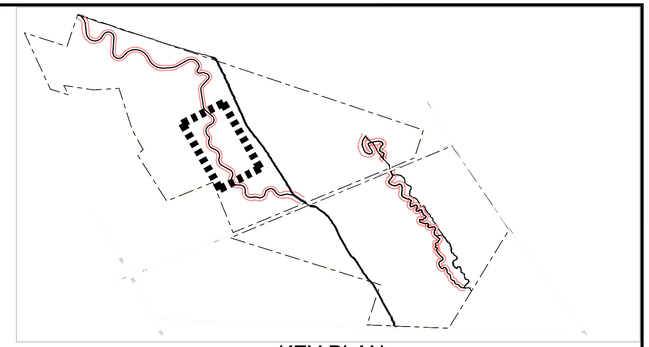
SAVED: 3/7/25 12:04 PM



PROPOSED PLAN VIEW - NW-DS - 1

50 0 50

SCALE: 1"=50'



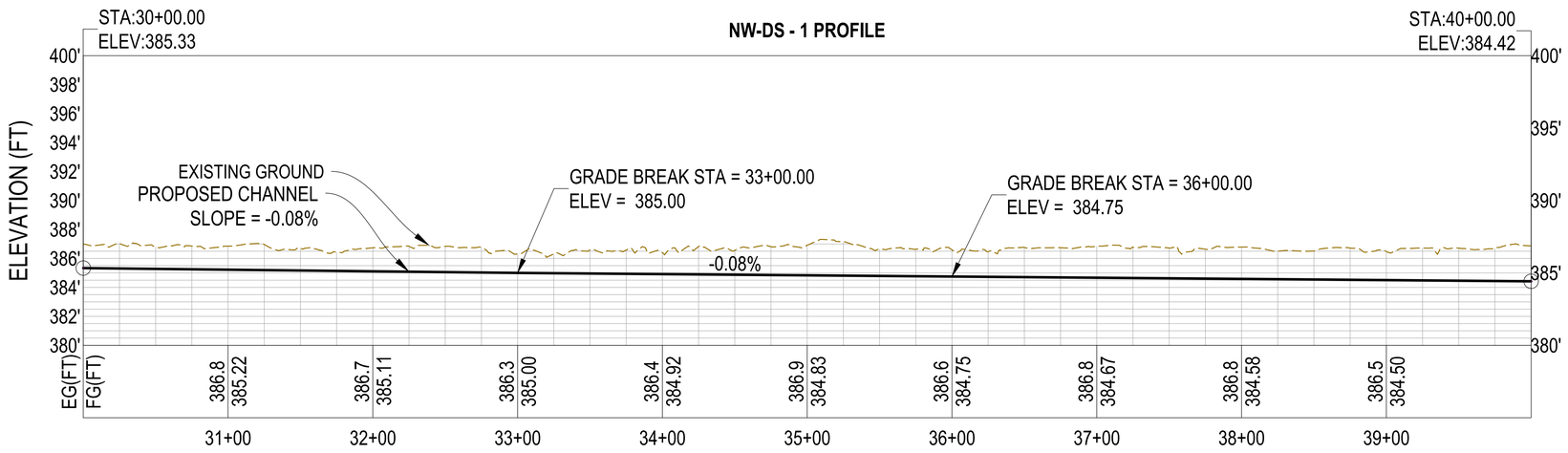
KEY PLAN

1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK



PROFILE STATION 30+00 TO 40+00

50 0 50 — SCALE HORZ. 1" = 50'

5' 0 5' — SCALE: VERT. 1"= 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/24/2025

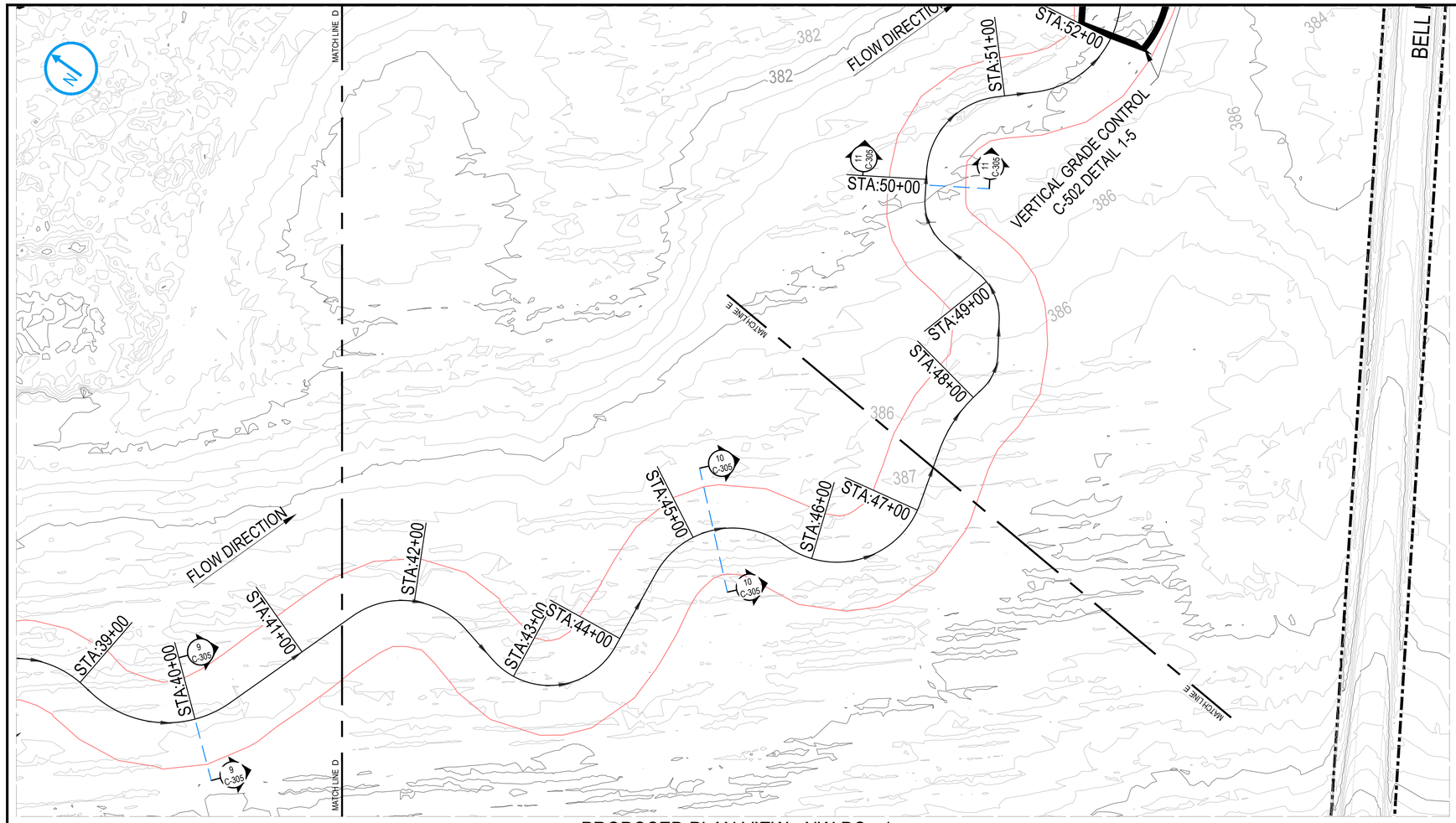
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NW-DS - 1**			### ###	
Location: ####	Designer / Professional Engineer Responsible: ####			###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-117**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRONIX\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

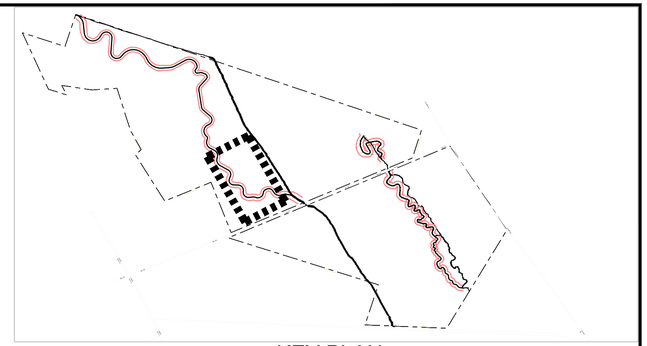
SAVED: 3/7/25 12:24 PM



PROPOSED PLAN VIEW - NW-DS - 1

50 0 50

SCALE: 1"=50'



KEY PLAN

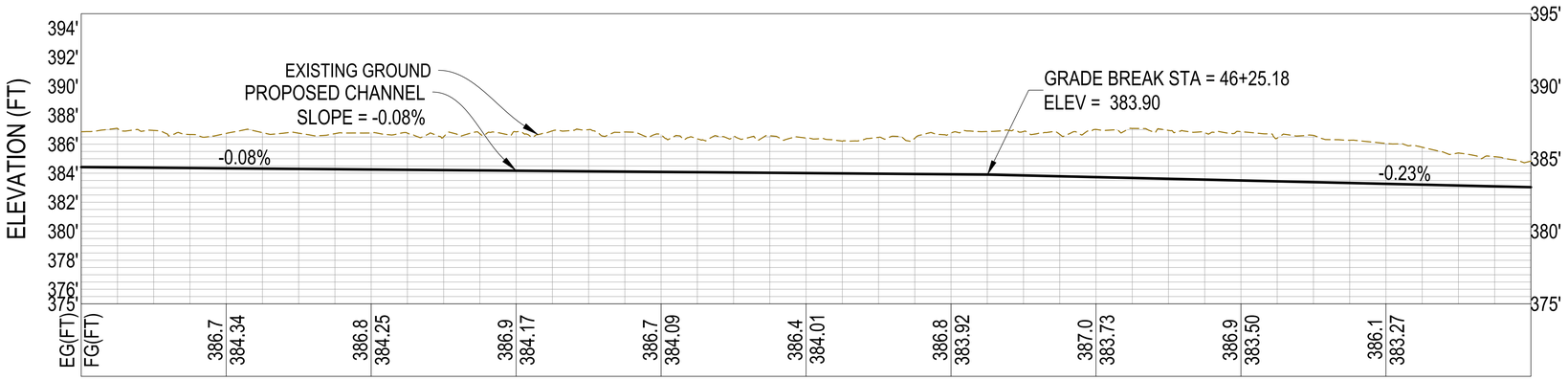
1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK

NW-DS - 1 PROFILE



PROFILE STATION 40+00 TO 50+00

50 0 50 SCALE HORZ. 1" = 50'

5' 0 5' SCALE: VERT. 1"= 5'

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 2/24/2025

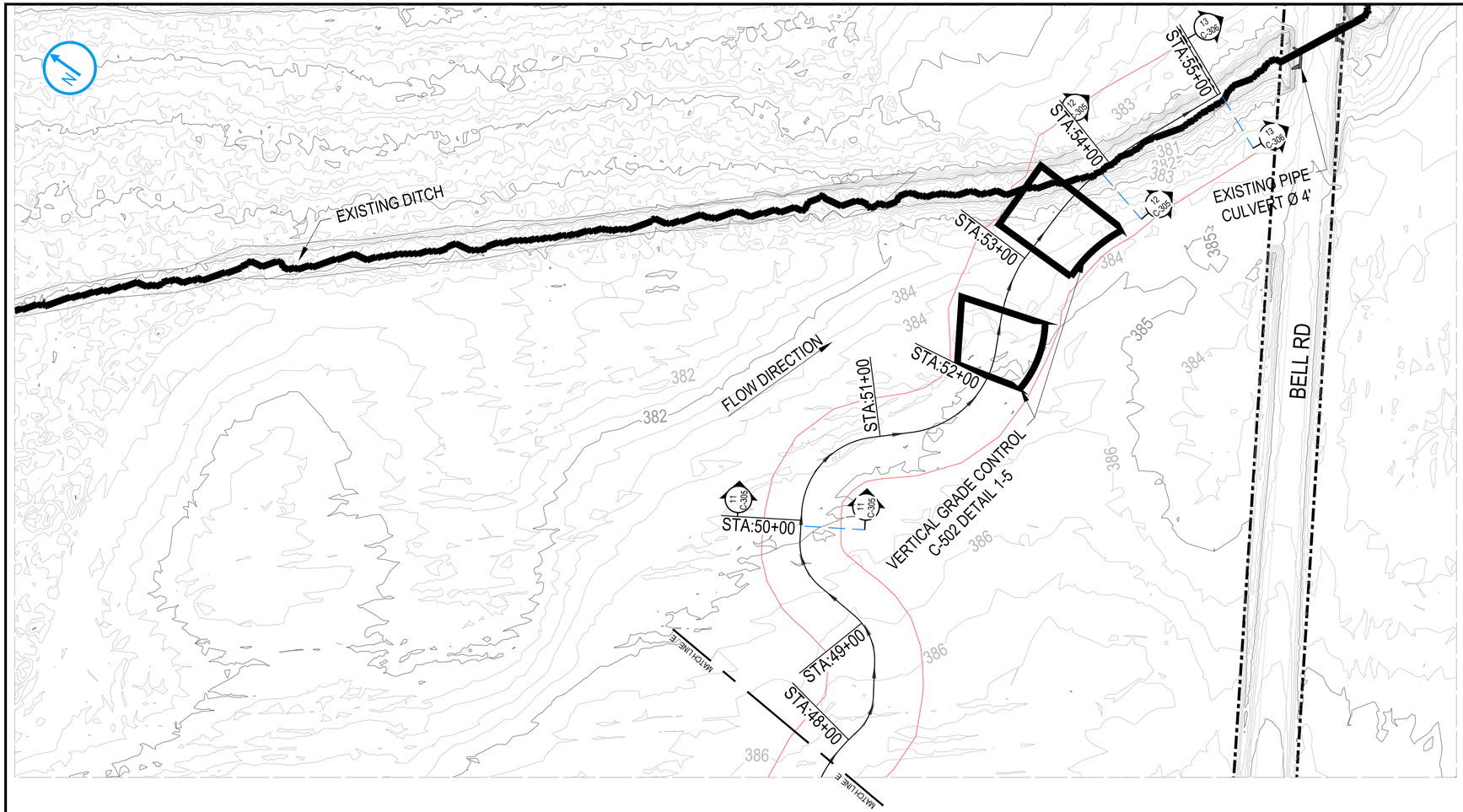
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **PROPOSED PLAN & PROFILE NW-DS - 1**				### ###	
Location: ####	Designer / Professional Engineer Responsible: ####				###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-118**			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

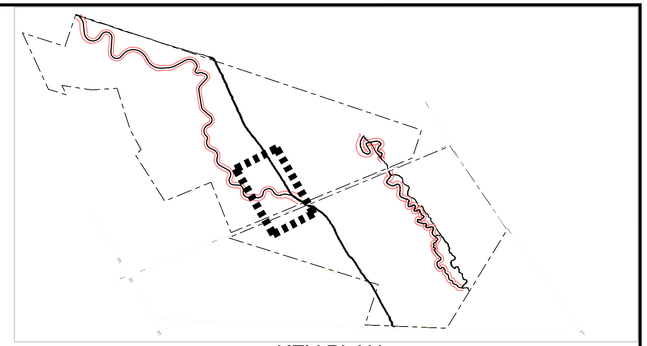
SAVED: 3/7/25 12:24 PM



PROPOSED PLAN VIEW - NW-DS - 1

50 0 50

SCALE: 1"=50'



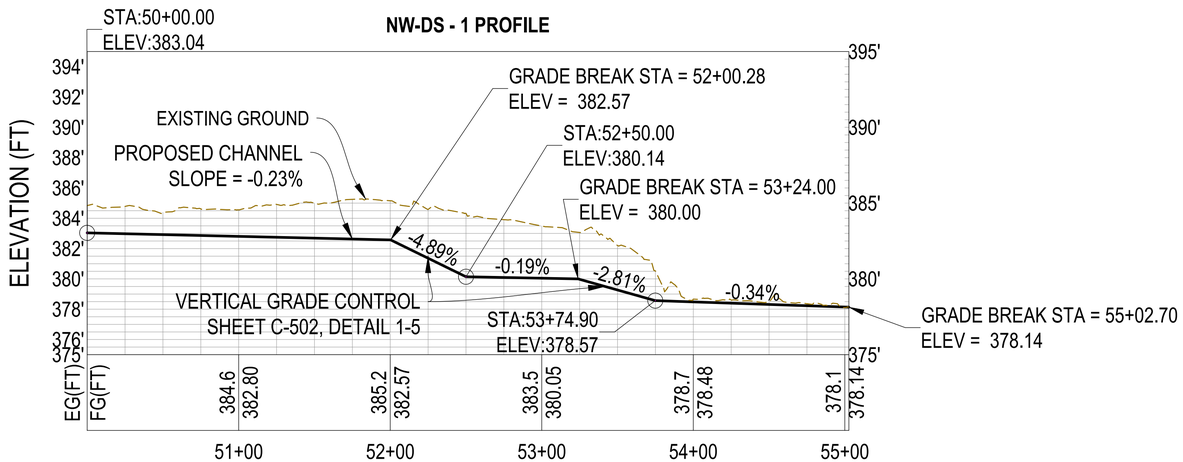
KEY PLAN

1000 0 1000

SCALE: 1"=1000'

LEGEND:

- PROPERTY BOUNDARY (APPROXIMATE)
- MAJOR CONTOUR LINES
- MINOR CONTOUR LINES
- EXISTING STREAM
- PROPOSED STREAM
- FILL AREA HATCH
- GROUNDWATER DAM
- LOG JAM
- VERTICAL GRADE CONTROL
- LIMITS OF STREAM WORK



PROFILE STATION 50+00 TO 56+00

50 0 50 SCALE HORZ. 1" = 50'

5' 0 5' SCALE: VERT. 1"= 5'

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 2/24/2025

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

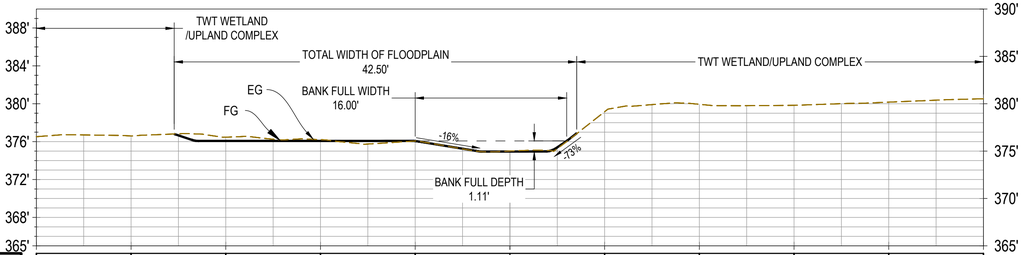
NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST**, STREAM MITIGATION, Bell Rd, Pennellville, NY 13132, ####	Drawing Title: **PROPOSED PLAN & PROFILE NW-DS - 1**				### ###	
Location: ####	Designer / Professional Engineer Responsible: ####				###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-119**			Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICROND\WD\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

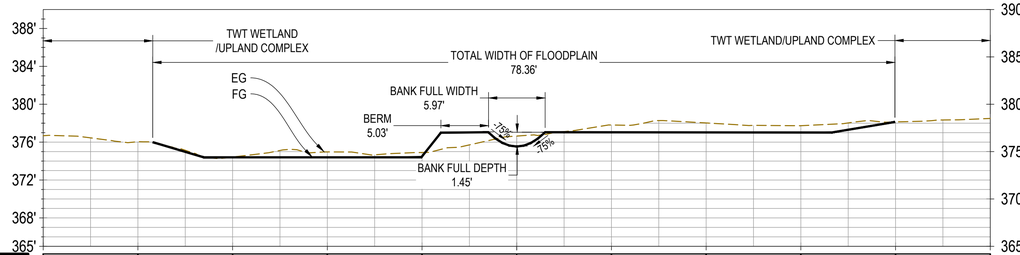
SECTION 1 - 1
ST 0+00.00



EXISTING ELEVATIONS (FT)	376.53	376.60	376.47	376.21	376.07	375.00	379.16	379.94	379.83	380.17	380.52
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

1-1 SECTION NE - DS - 1
1" = 8'

SECTION 2 - 2
ST 5+00.00



EXISTING ELEVATIONS (FT)	376.68	376.04	374.43	374.97	374.91	376.64	377.81	378.03	377.74	378.13	378.50
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

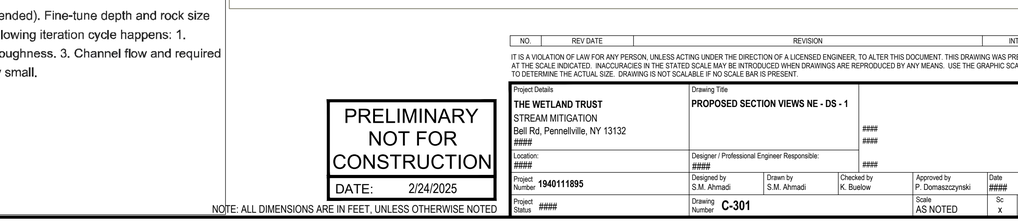
2-2 SECTION NE - DS - 1
1" = #'

SECTION 3 - 3
ST 8+00.00

EXISTING ELEVATIONS (FT)	378.24	377.75	377.20	376.84	376.55	375.42	377.21	377.38	374.54	374.97	376.78
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

3-3 SECTION NE - DS - 1
1" = #'

SECTION 4 - 4
ST 9+54.43



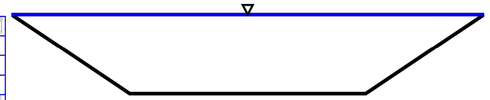
EXISTING ELEVATIONS (FT)	376.88	376.95	376.78	377.00	376.89	374.54	376.84	377.00	377.00	375.64	376.52
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

4-4 SECTION NE - DS - 1
1" = #'

Table C-301 - 1
Manning Formula Uniform Trapezoidal Channel Flow at Given Slope and Depth
Flow calculation for north of Bell Rd.

Inputs		
Bottom width, b	3	ft
Side slope 1 (horiz./vert.)	1.5	
Side slope 2 (horiz./vert.)	1.5	
Manning roughness, n ? ○Strickler ○B/B (See notes)	0.03	
Channel slope, S	0.08	% rise/run
Flow depth, y	1	ft
Bend Angle ? (for riprap sizing)	0	
Rock specific gravity (2.65)	2.65	
Design rock size, D50 ○Isbash ○Maynord ○Searcy * 1.25 (See notes)	0.1	ft

Results		
Flow area, a	4.5001	ft^2
Wetted perimeter, P_w	6.6056	ft
Hydraulic radius, R_h	0.6812	ft
Velocity, v	1.0846	ft/sec
Flow, Q	4.8808	cfs
Velocity head, h_v	0.0183	ft
Top width, T	6.0000	ft
Froude number, F	0.22	
Average shear stress (tractive force), tau	0.0340	psf
n for design rock size per Strickler	0.0265	
n for design rock size per Blodgett	0.0365	
n for design rock size per Bathurst	0.0153	
Blodgett vs. Bathurst	Blodgett	
Required bottom angular rock size, D50 (Isbash & MC) ?	0.0136	ft
Required side slope 1 angular rock size, D50 (Isbash & MC) ?	0.0164	ft
Required side slope 2 angular rock size, D50 (Isbash & MC) ?	0.0164	ft
Required angular rock size, D50 (Maynord, Ruff, and Abt 1989)	0.0076	ft
Required angular rock size, D50 (Searcy 1967)	0.0079	ft



Notes:

Automated rock size and roughness design iteration
Choose a roughness radio button (BB recommended) and a design rock size radio button (Isbash recommended). Fine-tune depth and rock size safety factor to get your desired flow with an even rock size. Every time you change any input value, the following iteration cycle happens: 1. Roughness is calculated from design rock size. 2. The requested roughness calculation is copied to input roughness. 3. Channel flow and required rock size are calculated. 4. Design rock size is adjusted. 5. Repeat until error in the design rock size is very small.

Basic calculator (no iteration)
Enter your desired roughness value. Ignore the design rock size input area.

NOTES:
1. BASEFLOW WAS MEASURED 0.46 CFS AS SHOWN ON SHEET C-101.
2. THE BANKFULL STATISTICS REPORT FROM STREAMSTATS (AREA-AVERAGED) SHOWS BANKFULL STREAM FLOW = 7.61 CFS FOR THE EXISTING BELL RD. NORTH STREAM.
3. THE PROPOSED STREAM SECTION CAPACITY IS CALCULATED AS 4.9 CFS AND PRESENTED IN (TABLE C-301-1) IN THIS SHEET.
   - 3.1. THE PROPOSED STREAM SECTION IS CLOSE TO A TRAPEZOIDAL SECTION AND IS DESIGNED TO ACCOMMODATE BASEFLOW. THE ACTUAL CONSTRUCTION WOULD BE ROUNDED CORNER TRAPEZOIDAL SHAPE.
   - 3.2. THE SHAPE OF THE STREAM WILL FOLLOW THE EXISTING STREAM CROSS SECTION FROM STATION 5+00 TO 9+00.
   - 3.3. GROUNDWATER DAMS ARE INSTALLED TO RAISE THE BASEFLOW HEAD AT THE START OF THE PROPOSED CHANNEL.
   - 3.4. LONGITUDINAL SLOPE IS MAINTAINED AT < 0.1 % TO MATCH UPSTREAM REFERENCE REACHES.
   - 3.5. VERTICAL GRADE CONTROL STRUCTURES ARE PROPOSED TO CONTROL THE VERTICAL GRADES WHERE APPLICABLE AS SHOWN ON THE PLANS AND PROFILES.
   - 3.6. LOG JAM SYSTEMS ARE PROPOSED TO AVOID POSSIBLE EROSION WHERE THE PROPOSED STREAM INTERSECTS THE EXISTING DITCH.

NO.	REV DATE	REVISION	INT.

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 2/24/2025

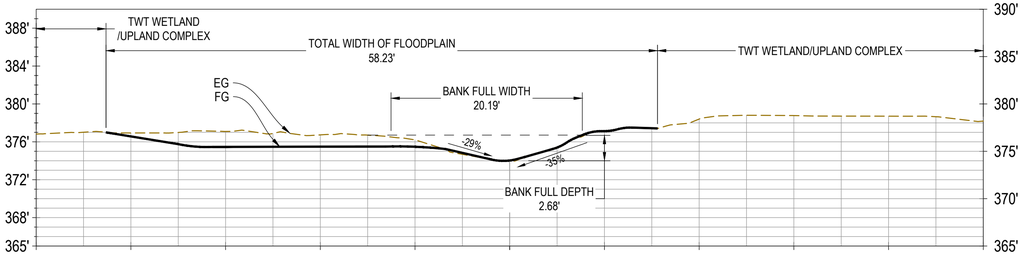
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED SECTION VIEWS NE - DS - 1**	### ###	
Location: ####	Designer / Professional Engineer Responsible: ####	###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-301**	Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

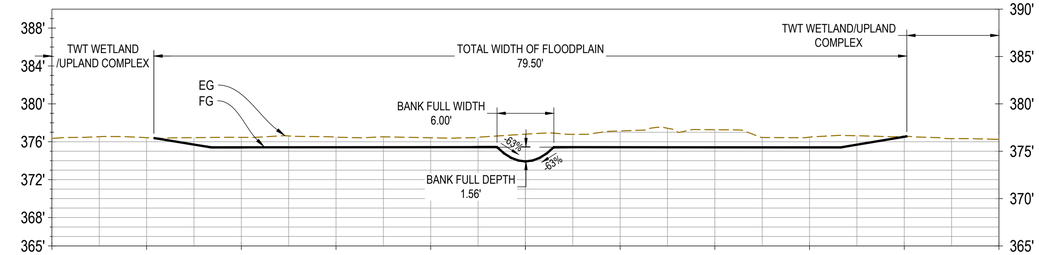
SECTION 1 - 1
ST 0+00.00



EXISTING ELEVATIONS (FT)	376.82	376.94	377.10	376.73	376.20	373.98	377.11	378.41	378.77	378.71	378.19
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

1-1 SECTION SE - DS - 1
1" = 8'

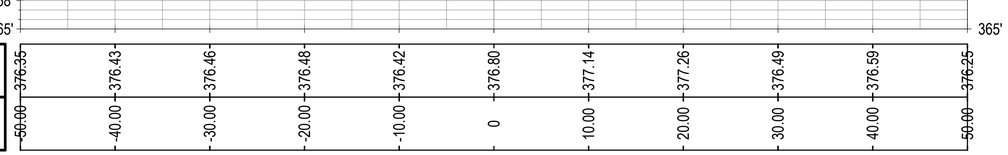
SECTION 2 - 2
ST 1+00.00



EXISTING ELEVATIONS (FT)	376.35	376.43	376.46	376.48	376.42	376.80	377.14	377.26	376.49	376.59	376.25
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

2-2 SECTION SE - DS - 1
1" = 8'

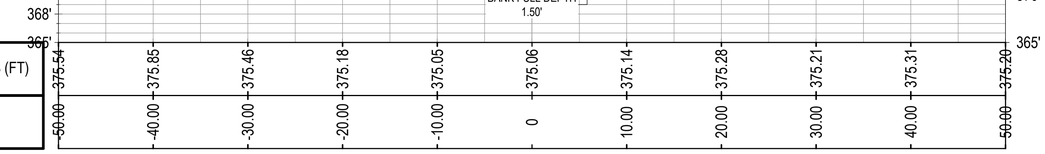
SECTION 2 - 2
ST 1+00.00



EXISTING ELEVATIONS (FT)	376.35	376.43	376.46	376.48	376.42	376.80	377.14	377.26	376.49	376.59	376.25
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

3-3 SECTION SE - DS - 1
1" = 8'

SECTION 4 - 4
ST 10+00.00



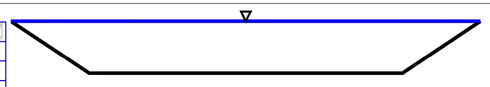
EXISTING ELEVATIONS (FT)	375.54	375.85	375.46	375.18	375.05	375.06	375.14	375.28	375.21	375.31	375.20
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

4-4 SECTION SE - DS - 1
1" = 8'

Table C-302 - 1
Manning Formula Uniform Trapezoidal Channel Flow at Given Slope and Depth
Flow calculation for south of Bell Rd.

Inputs		
Bottom width, b	3	ft
Side slope 1 (horiz./vert.)	1.5	
Side slope 2 (horiz./vert.)	1.5	
Manning roughness, n ? ○Strickler ○B/B (See notes)	0.03	
Channel slope, S	0.08	% rise/run
Flow depth, y	0.5	ft
Bend Angle ? (for riprap sizing)	0	
Rock specific gravity (2.65)	2.65	
Design rock size, D50 ○Isbash ○Maynord ○Searcy * 1.25 (See notes)	0.1	ft

Results		
Flow area, a	1.8751	ft^2
Wetted perimeter, P_w	4.8028	ft
Hydraulic radius, R_h	0.3904	ft
Velocity, v	0.7483	ft/sec
Flow, Q	1.4031	cfs
Velocity head, h_v	0.0087	ft
Top width, T	4.5000	ft
Froude number, F	0.20	
Average shear stress (tractive force), tau	0.0195	psf
n for design rock size per Strickler	0.0265	
n for design rock size per Blodgett	0.0412	
n for design rock size per Bathurst	0.0285	
Blodgett vs. Bathurst	Blodgett	
Required bottom angular rock size, D50 (Isbash & MC) ?	0.0065	ft
Required side slope 1 angular rock size, D50 (Isbash & MC) ?	0.0078	ft
Required side slope 2 angular rock size, D50 (Isbash & MC) ?	0.0078	ft
Required angular rock size, D50 (Maynord, Ruff, and Abt 1989)	0.0036	ft
Required angular rock size, D50 (Searcy 1967)	0.0038	ft



Notes:

Automated rock size and roughness design iteration
Choose a roughness radio button (BB recommended) and a design rock size radio button (Isbash recommended). Fine-tune depth and rock size safety factor to get your desired flow with an even rock size. Every time you change any input value, the following iteration cycle happens: 1. Roughness is calculated from design rock size. 2. The requested roughness calculation is copied to input roughness. 3. Channel flow and required rock size are calculated. 4. Design rock size is adjusted. 5. Repeat until error in the design rock size is very small.

Basic calculator (no iteration)
Enter your desired roughness value. Ignore the design rock size input area.

NOTES:

1. BASEFLOW IS MEASURED AT THREE SECTIONS ON SOUTH OF BELL RD. THE AVERAGE FLOW IS 0.76 CFS AS SHOWN ON TABLES C-102-1 AND C-103-1.
2. THE BANKFULL STATISTICS REPORT FROM STREAMSTATS (AREA-AVERAGED) SHOWS BANKFULL STREAM FLOW = 80.9 CFS FOR THE EXISTING BELL RD. SOUTH STREAM.
3. THE PROPOSED STREAM SECTION CAPACITY IS CALCULATED AS 1.4 CFS AND PRESENTED IN (TABLE C-302-1) IN THIS SHEET.
   - 3.1. THE PROPOSED STREAM SECTION IS CLOSE TO A TRAPEZOIDAL SECTION. IT IS DESIGNED TO ACCOMMODATE BASE FLOW. THE ACTUAL CONSTRUCTION WOULD BE ROUNDED CORNER TRAPEZOIDAL SHAPE FOR APPLICABILITY PURPOSES.
   - 3.2. THE AREA SOUTH OF BELL RD. IS VERY FLAT AND ONCE THE PROPOSED STREAM REACHES CAPACITY, FLOW WILL BE IN A SHEET FLOW MANNER IN THE FLOOD PLAIN EXTENT AND BEYOND.
   - 3.3. GROUNDWATER DAMS ARE INSTALLED TO RAISE THE BASEFLOW HEAD RIGHT AT THE START OF THE PROPOSED STREAM.
   - 3.4. TO SLOWDOWN THE FLOW, LONGITUDINAL SLOPE IS KEPT LOWER THAN 0.1% IN GENERAL.
   - 3.5. VERTICAL GRADE CONTROL STRUCTURES ARE PROPOSED TO CONTROL THE VERTICAL GRADES WHERE APPLICABLE AS SHOWN ON THE PLANS AND PROFILES.
   - 3.6. LOG JAM SYSTEMS ARE PROPOSED TO AVOID POSSIBLE EROSION WHERE THE PROPOSED STREAM INTERSECTS THE EXISTING DITCH.
4. BECAUSE THE EXISTING GROUND ELEVATIONS ARE NOT CHANGED DRAMATICALLY, FLOOD CAPACITY AND CHARACTERISTICS TEND TO REMAIN THE SAME.

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

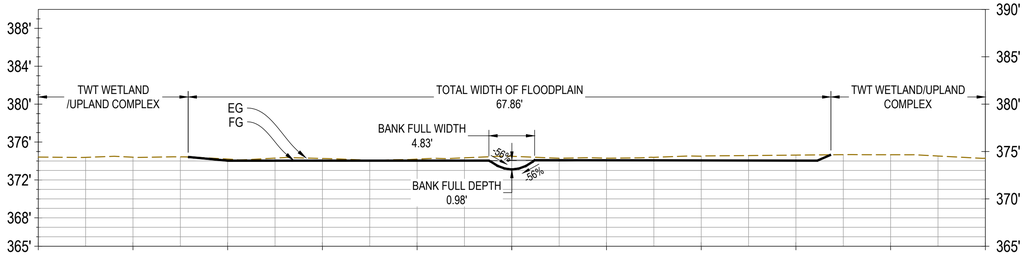
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	PROPOSED SECTION VIEWS SE - DS - 1		### ###
Location: ####	Designer / Professional Engineer Responsible: ####		###
Project Number 1940111895	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number C-302			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

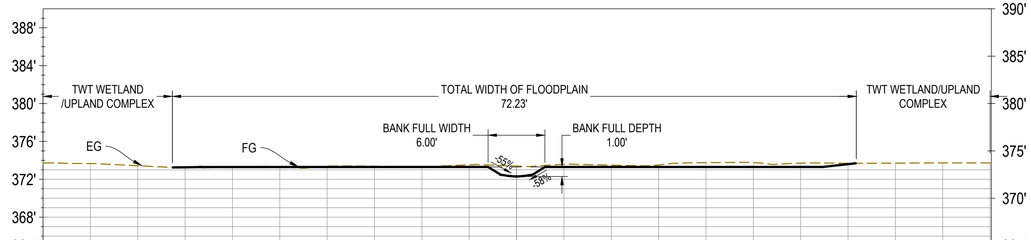
SECTION 5 - 5
ST 15+00.00



EXISTING ELEVATIONS (FT)	374.41	374.40	374.20	374.26	374.20	374.49	374.30	374.50	374.62	374.65	374.28
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

5-5 SECTION SE - DS - 1
1" = 8'

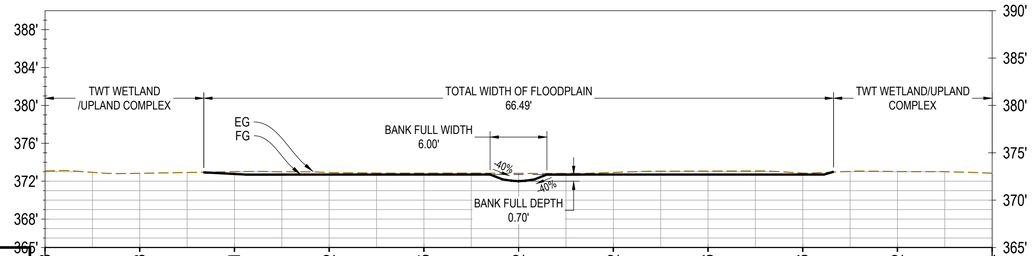
SECTION 6 - 6
ST 20+00.00



EXISTING ELEVATIONS (FT)	373.73	373.44	373.29	373.39	373.33	373.40	373.50	373.76	373.71	373.71	373.73
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

6-6 SECTION SE - DS - 1
1" = 8'

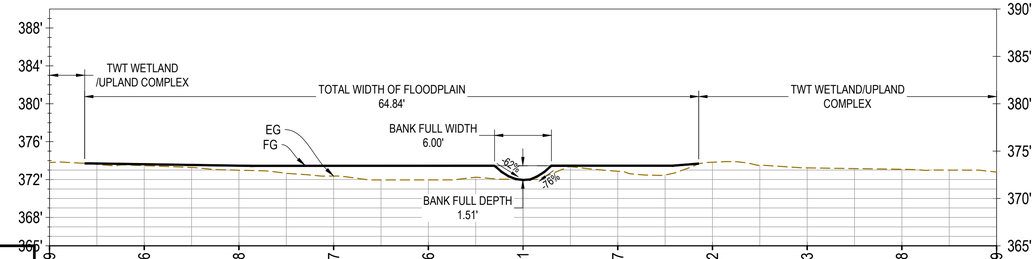
SECTION 7 - 7
ST 25+00.00



EXISTING ELEVATIONS (FT)	373.08	372.83	373.01	372.92	372.85	372.82	372.92	373.06	372.86	373.02	372.84
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

7-7 SECTION SE - DS - 1
1" = 8'

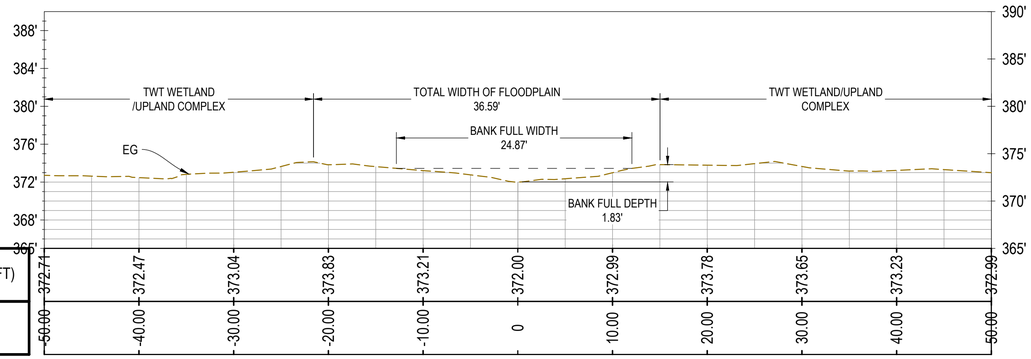
SECTION 8 - 8
ST 26+20.85



EXISTING ELEVATIONS (FT)	373.79	373.46	372.98	372.37	371.96	372.01	372.87	373.82	373.23	373.08	372.79
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

8-8 SECTION SE - DS - 1
1" = 8'

SECTION 9 - 9
ST 26+38.32



EXISTING ELEVATIONS (FT)	372.71	372.47	373.04	373.83	373.21	372.00	372.99	373.78	373.65	373.23	372.99
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

9-9 SECTION SE - DS - 1
1" = 8'

NO.	REV DATE	REVISION	INT.

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

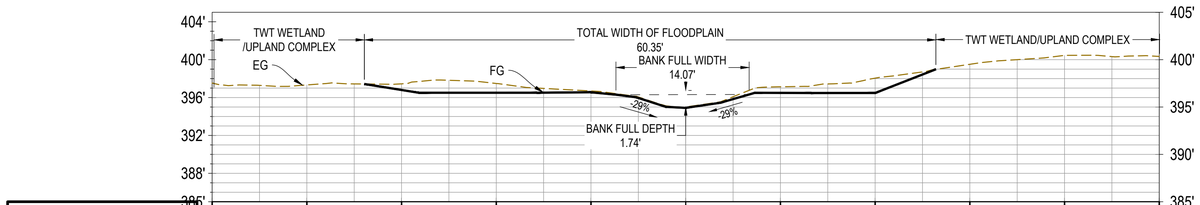
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED SECTION VIEWS SE - DS - 1**		### ###
Location: ####	Designer / Professional Engineer Responsible: ####		###
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-303**			Scale AS NOTED	Sc x / Rev. x

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

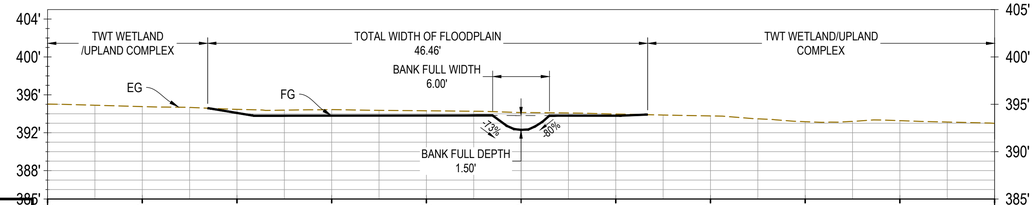
SECTION 1 - 1
ST 0+00.00



EXISTING ELEVATIONS (FT)	397.53	397.33	397.45	397.48	396.69	395.00	397.13	398.05	399.51	400.45	400.34
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

1-1 SECTION NW-DS - 1
1" = 8'

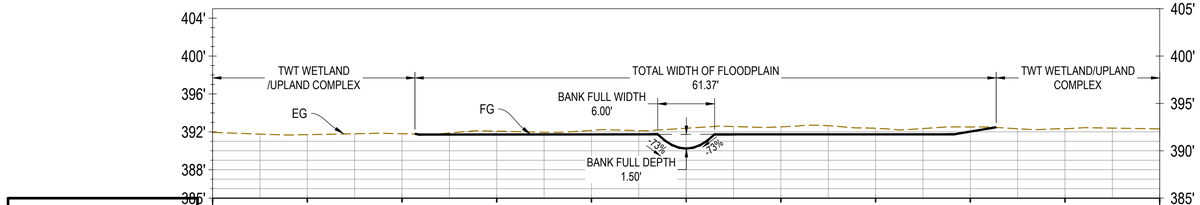
SECTION 2 - 2
ST 5+00.00



EXISTING ELEVATIONS (FT)	395.62	394.76	394.47	394.44	394.32	394.13	393.97	393.77	393.16	393.27	392.98
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

2-2 SECTION NW-DS - 1
1" = 8'

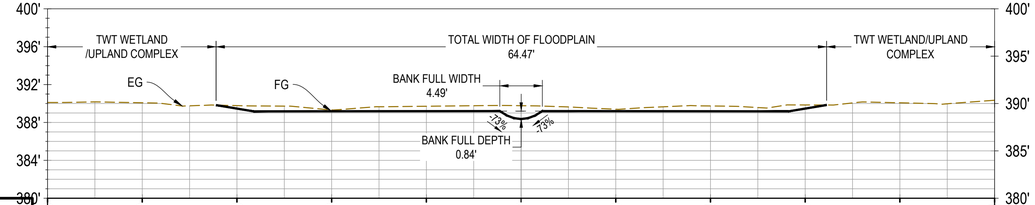
SECTION 3 - 3
ST 10+00.00



EXISTING ELEVATIONS (FT)	391.94	391.70	391.80	392.07	392.16	392.38	392.53	392.38	392.52	392.33	392.31
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

3-3 SECTION NW-DS - 1
1" = #'

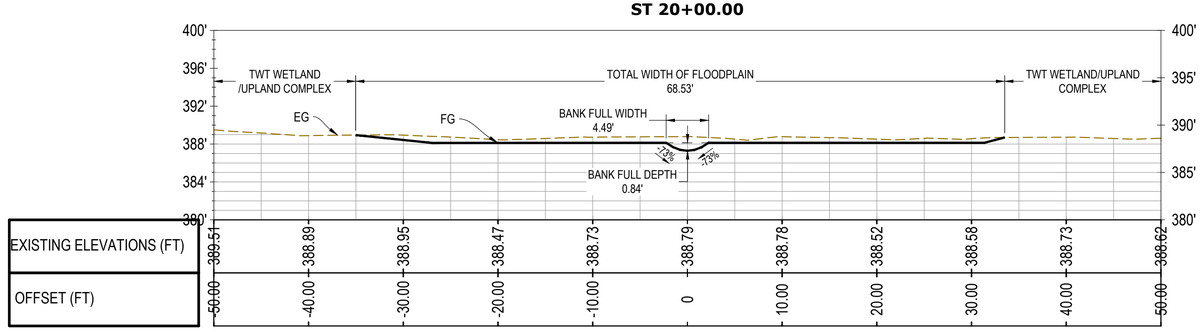
SECTION 4 - 4
ST 15+00.00



EXISTING ELEVATIONS (FT)	390.10	390.08	389.78	389.32	389.71	389.77	389.40	389.74	389.85	390.07	390.34
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

4-4 SECTION NW-DS - 1
1" = 8'

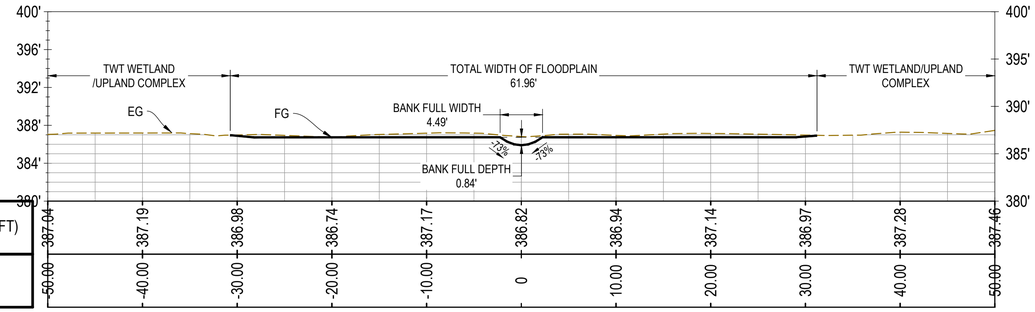
SECTION 5 - 5
ST 20+00.00



EXISTING ELEVATIONS (FT)	389.51	388.89	388.95	388.47	388.73	388.79	388.78	388.52	388.58	388.73	388.62
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

5-5 SECTION NW-DS - 1
1" = #'

SECTION 6 - 6
ST 25+00.00



EXISTING ELEVATIONS (FT)	387.04	387.19	386.98	386.74	387.17	386.82	386.94	387.14	386.97	387.28	387.46
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

6-6 SECTION NW-DS - 1
1" = 8'

NO.	REV DATE	REVISION	INT.

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

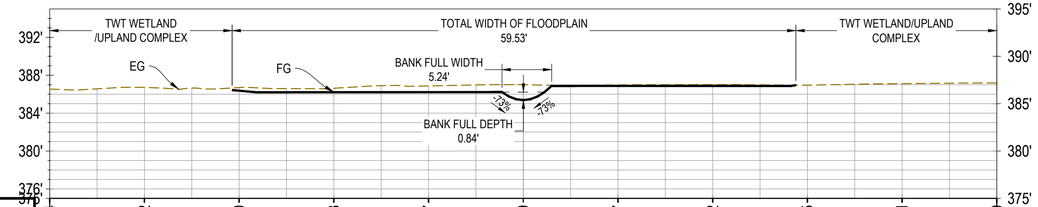
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED SECTION VIEWS NW-DS - 1**	### ###	
Location: ####	Designer / Professional Engineer Responsible: ####	###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-304**	Scale AS NOTED	Sc x	Rev. x

C:\USERS\SAHAMADI\DOWNLOADS\STREAM RESTOTRATION - MICROND\WG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

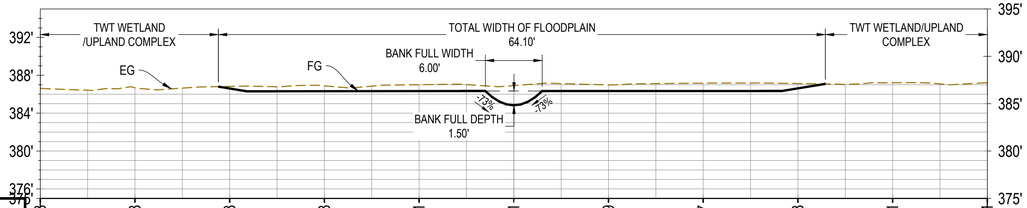
SECTION 7 - 7
ST 30+00.00



EXISTING ELEVATIONS (FT)	386.54	386.72	386.70	386.63	386.87	386.99	386.97	387.02	386.95	387.11	387.19
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

7-7 SECTION NW-DS - 1
1" = 8'

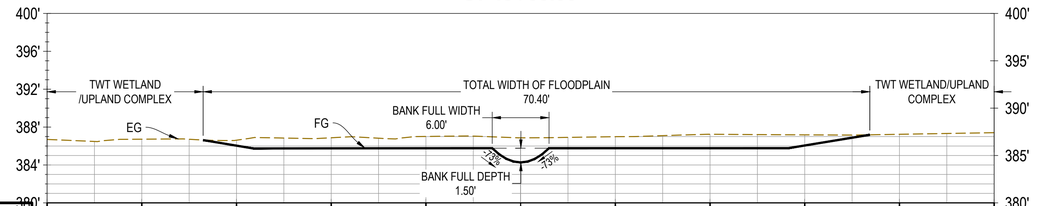
SECTION 8 - 8
ST 35+00.00



EXISTING ELEVATIONS (FT)	386.62	386.68	386.83	386.88	387.01	386.91	386.99	387.17	387.13	387.21	387.24
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

8-8 SECTION NW-DS - 1
1" = 8'

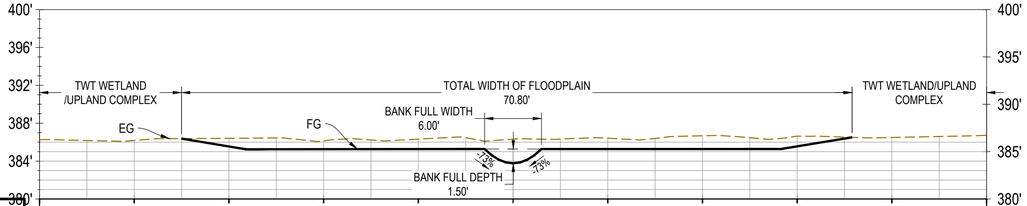
SECTION 9 - 9
ST 40+00.00



EXISTING ELEVATIONS (FT)	386.70	386.72	386.62	386.87	387.01	386.87	386.99	387.24	387.18	387.24	387.41
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

9-9 SECTION NW-DS - 1
1" = 8'

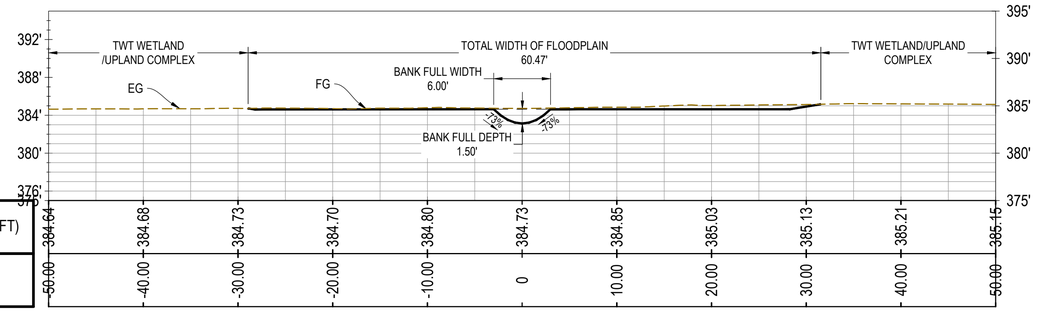
SECTION 10 - 10
ST 45+17.07



EXISTING ELEVATIONS (FT)	386.25	386.18	386.41	386.14	386.32	386.31	386.42	386.67	386.64	386.50	386.72
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

10-10 SECTION NW-DS - 1
1" = 8'

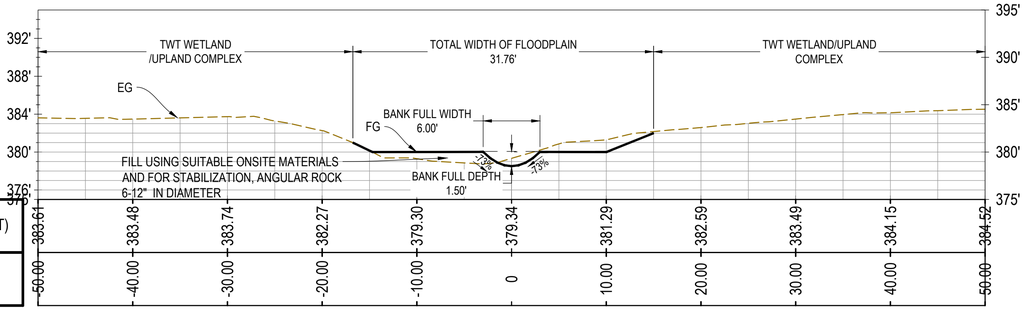
SECTION 11 - 11
ST 49+95.58



EXISTING ELEVATIONS (FT)	384.64	384.68	384.73	384.70	384.80	384.73	384.85	385.03	385.13	385.21	385.15
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

11-11 SECTION NW-DS - 1
1" = 8'

SECTION 12 - 12
ST 53+90.20



EXISTING ELEVATIONS (FT)	383.61	383.48	383.74	382.27	379.30	379.34	381.29	382.59	383.49	384.15	384.52
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

12-12 SECTION NW-DS - 1
1" = 8'

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

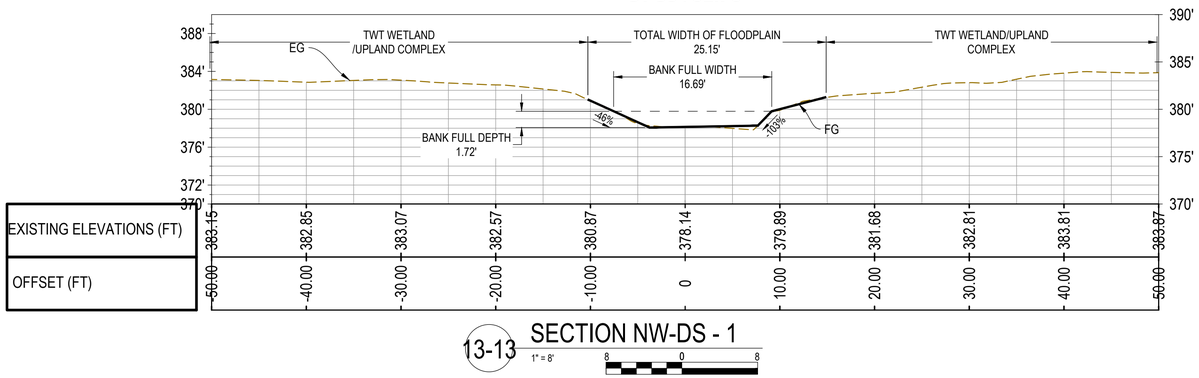
NO.	REV DATE	REVISION	INT.

Project Details	Drawing Title		
THE WETLAND TRUST STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	**PROPOSED SECTION VIEWS NW-DS - 1**	### ###	
Location: ####	Designer / Professional Engineer Responsible: ####	###	
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####
Project Status ####	Drawing Number **C-305**		Scale AS NOTED	Sc x	Rev. x

C:\USERS\SMAHMAD\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

SAVED: 3/7/25 12:24 PM

SECTION 13 - 13
ST 55+02.70



EXISTING ELEVATIONS (FT)	383.15	382.85	383.07	382.57	380.87	378.14	379.89	381.68	382.81	383.81	383.87
OFFSET (FT)	-50.00	-40.00	-30.00	-20.00	-10.00	0	10.00	20.00	30.00	40.00	50.00

13-13 SECTION NW-DS - 1

1" = 8'

8 0 8

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE: 2/24/2025

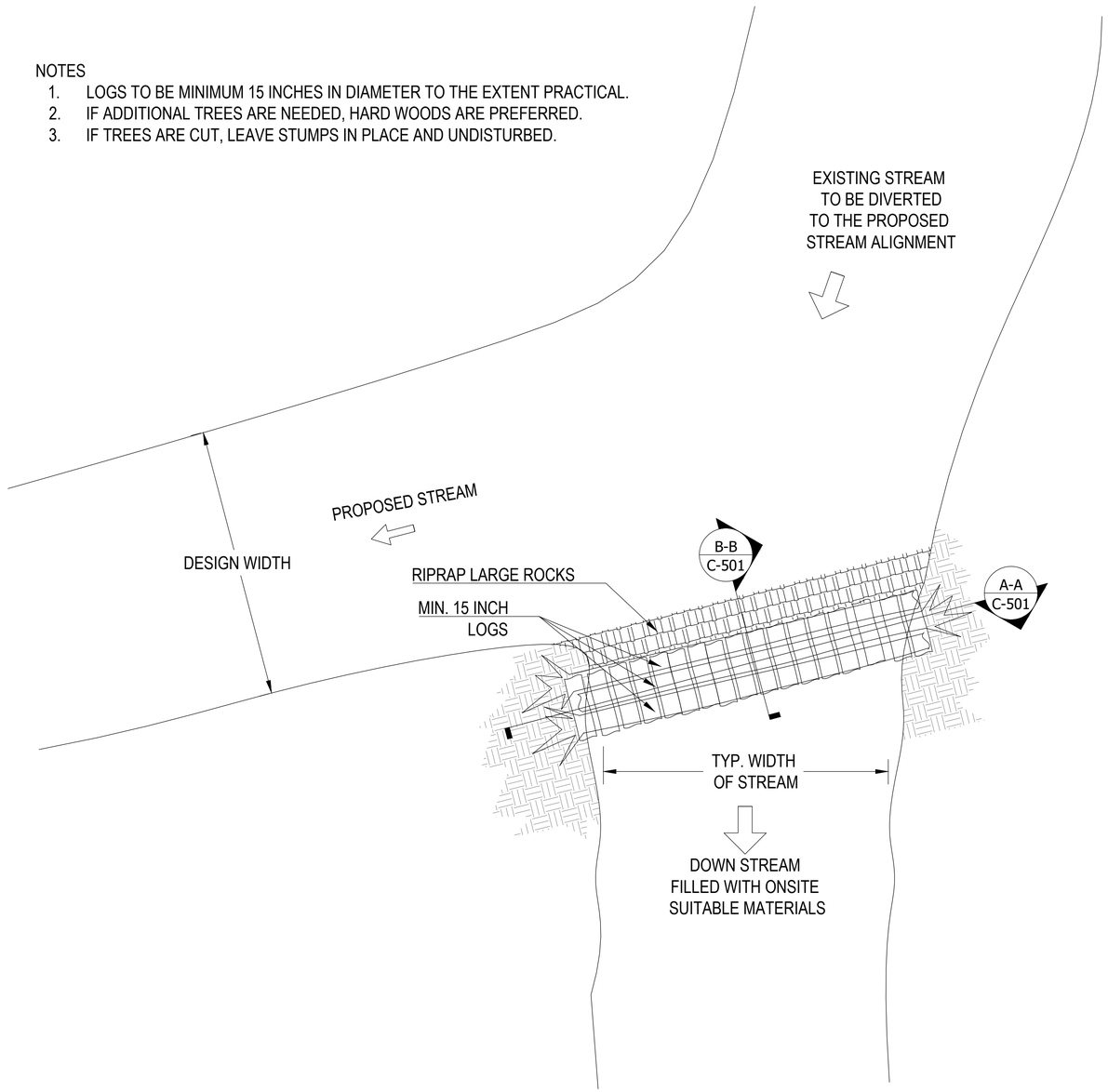
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

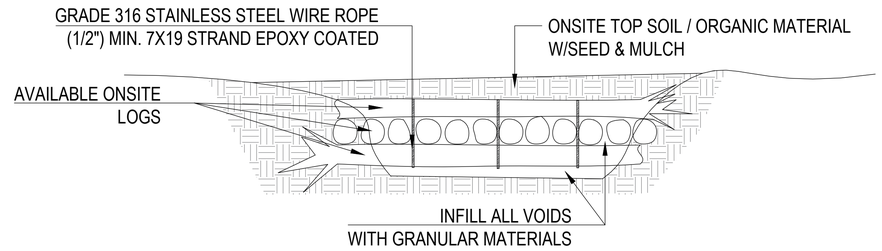
Project Details **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title **PROPOSED SECTION VIEWS NW-DS - 1**				#### #### ####	
Location: ####	Designer / Professional Engineer Responsible: ####					
Project Number **1940111895**	Designed by S.M. Ahmadi	Drawn by S.M. Ahmadi	Checked by K. Buelow	Approved by P. Domaszczynski	Date ####	
Project Status ####	Drawing Number **C-306**			Scale AS NOTED	Sc X	Rev. X

C:\USERS\SMAHMADI\DOWNLOADS\STREAM RESTOTRATION - MICRON\DWG\FINAL DESIGN DWGS - BELL RD NW\PROPOSED PLAN AND PROFILES SE & NW.DWG

NOTES
1. LOGS TO BE MINIMUM 15 INCHES IN DIAMETER TO THE EXTENT PRACTICAL.
2. IF ADDITIONAL TREES ARE NEEDED, HARD WOODS ARE PREFERRED.
3. IF TREES ARE CUT, LEAVE STUMPS IN PLACE AND UNDISTURBED.

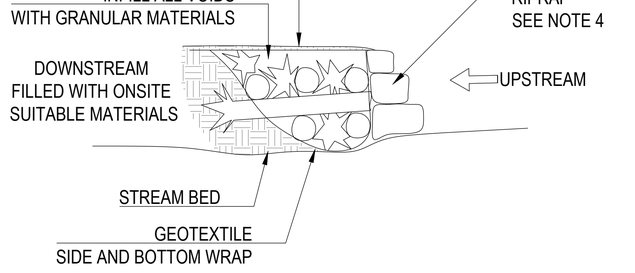


PLAN VIEW - LOG JAM (TYP.)
NOT TO SCALE



NOTES
1. EXISTING DOWNED TREES IF ANY SHALL BE USED TO BUILD THE ENGINEERED LOG JAM.
2. ACCESS THE EXITING CREEK DIVERSION FROM TOP OF BANK TO TOP OF BANK.
3. FIRST ROW OF LOGS SHALL BE PLACED PERPENDICULAR TO THE FLOW.
4. THE SUBSEQUENT LAYER OF LOGS WILL BE PLACED PERPENDICULARLY OVER THE FIRST ROW TO FORM A CRIB FORMATION ON WHICH TO CONTINUE UNTIL TOP OF BANK IS REACHED ON BOTH SIDES.
5. GEOTEXTILE SHALL BE USED TO WRAP THE BOTTOM AND SIDES OF THE LOG SYSTEM. DO NOT COVER THE TOP WITH GEOTEXTILE.
6. INFILL VOIDS BETWEEN THE LOGS WITH AVAILABLE ONSITE MATERIAL.
7. PLACE LARGE/HEAVY RIPRAP ON THE UPSTREAM SIDE OF THE LOG SYSTEM. (3 FEET MIN.) BACKFILL VOIDS WITH BED LOAD MATERIALS.

A-A SECTION
NOT TO SCALE



NOTES
1. BED LOAD MATERIAL SHALL BE PLACED OVER EACH ROW OF LOGS TO FILL VOIDS.
2. ENTIRE SYSTEM SHALL BE TIED WITH GRADE 316 STAINLESS STEEL WIRE ROPE (1/2") MIN. 7X19 STRAND EPOXY COATED.
8. PLACE LARGE/HEAVY RIPRAP ON THE UPSTREAM SIDE OF THE LOG SYSTEM. (3 FEET MIN.) BACKFILL VOIDS WITH BED LOAD MATERIALS.

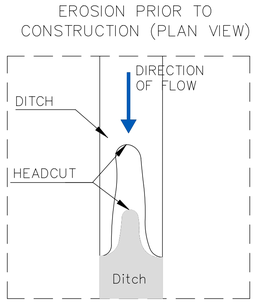
B-B SECTION
NOT TO SCALE

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2/24/2025

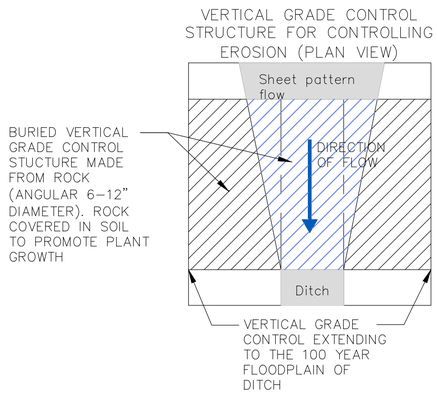
NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

NO.	REV DATE	REVISION	INT.

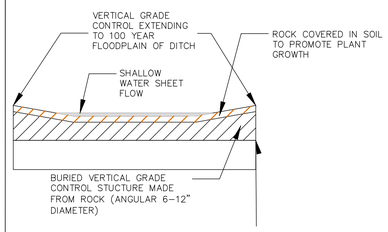
Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **MISCELLANEOUS DETAILS**				#### ####	
Location: ####	Designer / Professional Engineer Responsible: ####				####	
Project Number **1940111895**	Designed by ####	Drawn by ####	Checked by ####	Approved by ####	Date ####	
Project Status ####	Drawing Number **C-501**			Scale AS NOTED	Sc x	Rev. x



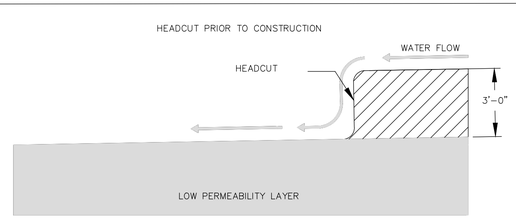
1 VERTICAL GRADE CONTROL
NOT TO SCALE



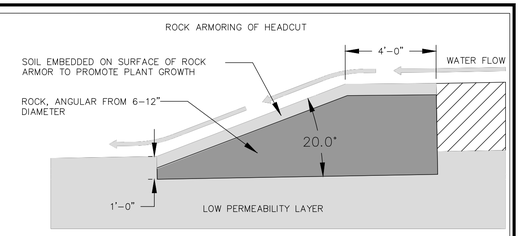
2 VERTICAL GRADE CONTROL
NOT TO SCALE



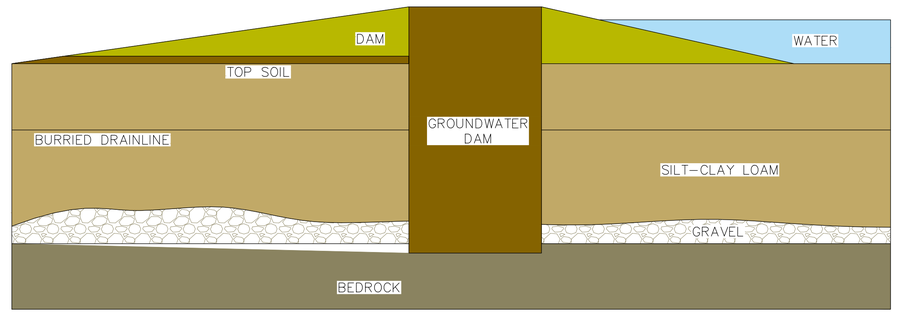
3 VERTICAL GRADE CONTROL
NOT TO SCALE



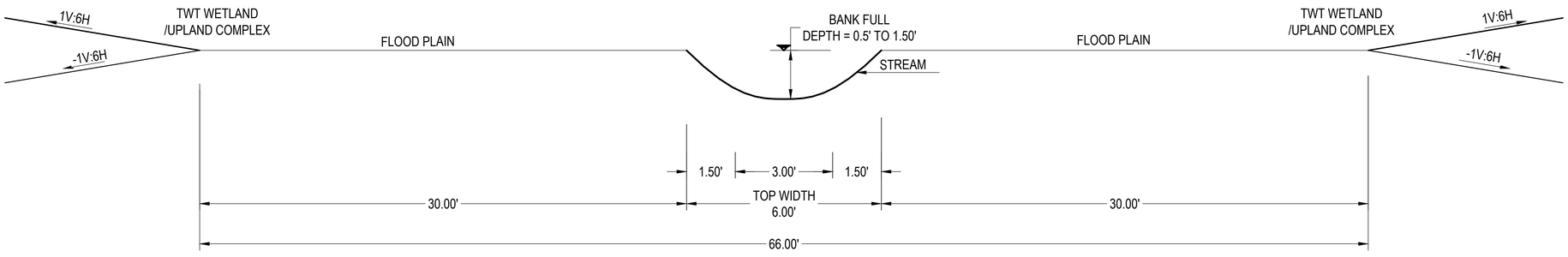
4 VERTICAL GRADE CONTROL
NOT TO SCALE



5 VERTICAL GRADE CONTROL
NOT TO SCALE



6 GROUND WATER DAM
NOT TO SCALE



PROPOSED STREAM AND FLOODPLAIN SECTION (TYP.)
NOT TO SCALE

NOTES:
1. DETAILS 1 THROUGH 6 PRESENTED ON THIS SHEET ARE PROVIDED BY TWT.

NOTE: ALL DIMENSIONS ARE IN FEET, UNLESS OTHERWISE NOTED

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 2/24/2025

NO.	REV DATE	REVISION	INT.

Project Details: **THE WETLAND TRUST** STREAM MITIGATION Bell Rd, Pennellville, NY 13132 ####	Drawing Title: **MISCELLANEOUS DETAILS**					### ###	
Location: ####	Designer / Professional Engineer Responsible: ####					###	
Project Number **1940111895**	Designed by ####	Drawn by ####	Checked by ####		Approved by ####	Date ####	
Project Status ####	Drawing Number **C-502**				Scale AS NOTED	Sc x	Rev. x

Buxton Creek
Long Term Management Plan (LTMP)

Oswego County, New York

PREPARED BY:

The Wetland Trust, Inc.

4729 State Route 414

Burdett, NY 14818

www.thewetlandtrust.org

May 2025

1.0 Introduction

The Wetland Trust, Inc. (TWT), as part of the Permittee Responsible Offsite Compensatory Mitigation Project (Project) on behalf of Micron NY Semiconductor Manufacturing, LLC (Micron), has developed a mitigation plan at the Buxton Creek Site, town of Schroeppel, Oswego County, New York (Mitigation Site) to develop wetland and stream mitigation acreage that will contribute to the total compensation needs for the construction of a semiconductor fabrication complex in the town of Clay, Onondaga County, NY. This Long-Term Management Plan (LTMP) has been developed based on anticipated monitoring and management activities for the Mitigation Site. Additional details are to be provided, if necessary, throughout the monitoring period and amended or revised as needed and approved by the USACE and NYSDEC. The purpose of the Long-Term Management Plan (LTMP) is to ensure the long-term sustainability of the protected and restored resources after mitigation performance standards have been achieved.

2.0 Responsible Party and Long-Term Steward

Micron is the Responsible Party for all phases of this Permittee Responsible mitigation through monitoring and final acceptance when a Certificate of Completion (or equivalent) will be provided by the agencies. Once the mitigation is complete Micron will transfer long-term management to TWT. As the fee simple owners of the Buxton Creek Site, TWT will be the long-term steward and responsible for long-term management of the wetland mitigation site including; identification of needs, development of recommendations, review with regulatory agencies as required, implementation, and efficacy measures. TWT shall implement this LTMP to preserve the habitat and conservation values in accordance with the approved Mitigation Plan, site protection instrument, and this LTMP. Long-term management tasks shall be funded through the Long-Term Management Fund.

3.0 Property Description

3.1 Conservation Values

The Mitigation Site provides an opportunity for restoration of a large stream/wetland complex with approximately 89 acres of wetland re-establishment, 27 acres of rehabilitation, and 9,000 linear ft of restored stream reaches in a previously drained and cultivated landscape. The permanent restoration and subsequent protection of this property has several site-specific conservation values that can be enhanced and maintained.

- ***Hydrologic Function***- Restoring the stream's natural sinuosity and floodplain connection will improve surface water retention, infiltration, and seasonal saturation of soils. Removal of artificial drainage and regrading will help reestablish groundwater-surface water interactions, essential for wetland hydrology.
- ***Water Quality***- Conversion of cropland to wetlands and vegetated buffers will reduce nutrient runoff, sedimentation, and agrochemical inputs into Buxton Creek and downstream waters.

3.2 Site Improvements

Summary of site improvements including construction and restoration as per the Mitigation Plan. As-built report should be attached as an Appendix to this LTMP.

4.0 Baseline Conditions

Baseline conditions will be provided here with the as-built and final 10-year report referenced and attached. Conditions will be updated throughout the life of the project.

5.0 Management Activities

The Buxton Creek long-term management strategy will ensure the long-term sustainability and ecological performance of the restored and protected aquatic, upland and biological resources long after the active monitoring period has closed. Upon approval of the Mitigation Plan, the proposed wetland restoration will be completed. This restoration will restore or rehabilitate approximately 117 acres of diverse, native wetland vegetation communities to support wetland wildlife populations and connectivity to adjacent preserved wetlands. If monitoring finds it necessary, the anticipated long-term management activities include:

- ***Invasive Species Management-*** At the conclusion of the ecological monitoring period, performance standards will be met and native vegetative communities well established. Long-term management will ensure that conservation values are not significantly threatened by invasive vegetation. If warranted, mechanical or chemical management of invasive species will be implemented (see Invasive Species Management Plan).
- ***Spillways and Groundwater Dams-*** The constructed spillways and groundwater dams will be monitored and maintained as needed to maintain structural integrity and contribution toward site-specific conservation values.
- ***Access-*** The main access and parking area will be maintained as needed via mowing or replenishing gravel in appropriate areas. Gates, padlocks, and fences will receive upkeep as needed.
- ***Security and Safety-*** The Buxton Creek site will not be open to the public to minimize impacts from human activity and the parcel will be posted for protection against trespassing. Signage posting and unauthorized access will be monitored and appropriately maintained. Trash will be collected on a yearly basis and security increased as warranted in the form of additional gates/locks, cameras, and contact with local authorities.

Any long-term management activities performed will be recorded in an annual report along with any recommendations for future management activities or proposed changes to the LTMP, if warranted.

6.0 Funding

To ensure long-term financial assurance TWT will continue to own the site fee simple in perpetuity. As a 501(c)(3) nonprofit, TWT has received tax-exempt status for the site, which helps assure its long-term protection. TWT has a director-controlled Stewardship Management Investment Account specifically established for the Micron Compensatory Mitigation project with funds provided by Micron Semiconductor Manufacturing LLC. Funds will be deposited into this account with the investment income (investment instruments are low risk and broad-based) used to support permanent long-term management and maintenance. These funds are sufficient to sustain long-term management as outlined in **Table 1**, in which the budget covers long-term management for all six sites combined.

Table 1. Budget estimate for potential long-term management and maintenance tasks, all six Micron Wetland/Stream mitigation sites, a total of 1,328 acres.

Category	Task	Frequency	Estimated Cost per acre	Annualized Cost
Adaptive Management	Replanting	5	$1,800	$7466
	Reshaping terrain	5	$600	$2489
	Invasive species removal	2	$2,100	$21777
Maintenance	Site manipulation	10	$1500	$3111
	Boundary posting	10	$600	$6244
	Other practices	3	$1,320	$9,126
Long-Term Management	Other corrective adaptive management actions to ensure natural stability of site	5	$4,800	$19,910
Monitoring	To determine implementation tasks	1	$18	$25,398
Administration	For all tasks above including tax exempt status	1	$600	$12,444
Total annual budget*				102,500
Total Stewardship investment**				**$4,100,000**

Note: This table is an estimate based on 400 wetland credits @ $8,000 or (equivalent DEC Acres) and 13,500 stream ft @ $60