WETLAND DELINEATION REPORT
FOR THE
ONONDAGA COUNTY
INDUSTRIAL DEVELOPMENT AGENCY
SEWER LINE PROJECT

TOWN OF CLAY
ONONDAGA COUNTY, NEW YORK

Prepared for:

CHA
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June 2013

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1.0 INTRODUCTION

Terrestrial Environmental Specialists, Inc. (TES) performed a wetland investigation for the Onondaga County Industrial Development Agency (OCIDA) proposed sanitary sewer line route in the Town of Clay, Onondaga County, New York. The proposed sewer line begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks (Figure 1).

The TES wetland investigation consisted of a review of available background information and a field delineation of wetlands and other regulated waters on the proposed sewer line route ROW. This report addresses the results of the background information review and the wetland delineation. A variety of figures are included with this report, along with photographs and field data sheets.

2.0 BACKGROUND INFORMATION REVIEW

Prior to the field investigation for wetlands, TES assembled and reviewed available background information. This information included:

- the New York State Department of Transportation (NYS DOT) Topographic Map (Brewerton Quadrangle) (Figure 1);
- the New York State Department of Environmental Conservation (NYSDEC) New York State (NYS) Freshwater Wetlands Map (Figure 2);
- the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map (Figure 3);
- the Onondaga County Soil Survey Map prepared by the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) (Figure 4);
- the New York State Surface Water Classification Map (Figure 5);
- the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Figure 6); and
- a 2009 aerial photograph obtained from the New York State Geographic Information Systems (GIS) Clearinghouse (Figure 7).

All figures are provided after the text.

3.0 METHODS

The agency resource information maps, soils descriptions, and the aerial photograph discussed above were used during the field review. These maps and this information assisted in the initial identification of potential wetland areas and other regulated waters within the ROW.

A preliminary field review for wetlands was conducted by TES on May 17, 2012. Flagging of the wetlands and data collection was performed by TES on September 27, 28, and October 1, 2012. The wetland boundaries were identified and delineated using the state and

federal criteria for vegetation, soils, and hydrology (NYSDEC and APA 1995, Environmental Laboratory. 1987, U.S. Army Corps of Engineers 2012, Lichvar 2012, and USDA NRCS 2010).

Surveyor's ribbons were placed along the wetland boundaries based on observations of vegetation, soils, and hydrology conditions. These observations were made along transects located perpendicular to the wetland boundaries. Additional observations of vegetation, soils, and hydrology were made at intermediate locations between the transects for the placement of additional flagging. Each wetland flag was labeled with a letter identifier of the wetland and was numbered consecutively *(e.g.*, A-1, A-2, A-3, *etc*.). The flagged wetland boundaries were surveyed by CHA.

To further support the wetland boundaries, data on vegetation, soils, and hydrology were collected from sample plots along transects located perpendicular to the wetland boundaries. TES sampled thirty-seven (37) plots in and around the wetlands and in other representative areas. Plots were generally located on the wetland and upland sides of the flagged wetland boundaries. The plot data were recorded on data sheets similar to those used in the regional supplement (U.S. Army Corps of Engineers 2012).

Vegetation data were collected in all the sample plots. Ocular estimates of the percent areal cover by plant species for each vegetation layer (tree, shrub, and herbaceous layers) were recorded. The sample plots varied in size by vegetation layer being sampled. The sizes were: 30-foot radius for the tree, 15-foot radius for the shrub, and 5-foot radius for the herbaceous layer.

The presence of wetland vegetation was determined when more than 50 percent of the dominant species in a sample plot had an indicator status of obligate (OBL), facultative-wet (FACW), or facultative (FAC). The dominant species for each layer in a plot were determined by ranking the species in decreasing order of percent cover and recording those species which, when cumulatively totaled, immediately exceeded 50 percent of the total cover of that layer. Additionally, any plant species that comprised 20 percent or more of the total cover for each layer was considered to be a dominant species.

Plant species were primarily identified using the *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* (Gleason and Cronquist 1991), *New Britton and Brown Illustrated Flora* (Gleason 1952), and *Gray's Manual of Botany* (Fernald 1950). Scientific nomenclature follows the *National Wetland Plant List* (Lichvar 2012) and *A Checklist of New York State Plants* (Mitchell and Tucker 1997). The indicator status for each plant species was determined using *National Wetland Plant List* (Lichvar 2012).

Soil and hydrology data were collected in soil pits or soil borer holes to a minimum depth of 12 inches within each sample plot. Soil characteristics were noted along the soil profile at the depth specified by the Corps criteria (U.S. Army Corps of Engineers 2012). Procedures for identifying hydric soils as outlined in the *Field Indicators of Hydric Soils in the United States* (USDA NRCS 2010) were followed. Soil colors were determined using the Munsell color chart. Primary and secondary indicators of hydrology were also noted at each sample plot. The wetland boundaries were refined on the basis of intermediate soil borer holes along each transect.

4.0 RESULTS

The following section of the report provides an overall description of the ROW and a description of the wetlands identified and delineated by TES.

4.1 Sewer Line Right-of-Way Description

The NYSDOT Topographic Map shows that the ROW is located in the Town of Clay, Onondaga County, New York (Figure 1). The ROW begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks.

The NYSDEC New York State Freshwater Wetlands Map shows one state-regulated wetland within the ROW (Figure 2). This wetland (BRE-17) is a Class I wetland according to the NYSDEC wetland ranking system. This is the highest value in the state's wetland rating system (Class I is the highest ranked and Class IV is the lowest ranked). Wetland BRE-17 is associated with Mud Creek.

According to the National Wetlands Inventory Map (Figure 3), four wetland types occur on or near the ROW. These types are designated by the USFWS as palustrine, forested, broad-leaved deciduous/scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated (PFO1/SS1E); palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A); palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated (PSS1E), and palustrine, unconsolidated bottom, permanently flooded, excavated (PUBHx).

The Soil Survey Map prepared by the Natural Resources Conservation Service shows a variety of mapped soil types within the ROW (Figure 4). Soil data for the ROW were also obtained from the USDA NRCS Web Soil Survey (WSS). Information from these sources indicated that seventeen different soils occur within the ROW.

Table 1.
Mapped Soils Occurring Within the OCIDA Sewer Line Route Right-of-Way

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
ArB	Arkport very fine sandy loam, 2 to 6 % slopes	well drained
ChA	Collamer silt loam, 0 to 2 % slopes	moderately well drained
ChB	Collamer silt loam, 2 to 6 % slopes	moderately well drained
ClB	Colonie loamy fine sand, 0 to 6 % slopes	somewhat excessively drained
DuC	Dunkirk silt loam, rolling	well drained
FL	Fluvaquents, frequently flooded	poorly drained
HlA	Hilton loam, 0 to 3 % slopes	moderately well drained
HlB	Hilton loam, 3 to 8 % slopes	moderately well drained

Table 1. (cont.)

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
MdB	Madrid fine sandy loam, 2 to 8 % slopes	well drained
MtA	Minoa fine sandy loam, 0 to 2 % slopes	somewhat poorly drained
NgA	Niagara silt loam, 0 to 4 % slopes	somewhat poorly drained
OgB	Ontario loam, 2 to 8 % slopes	well drained
OnC	Ontario gravelly loam, 8 to 15 % slopes	well drained
Wn	Wayland silt loam	poorly drained
WwA	Williamson silt loam, 0 to 2 % slopes	moderately well drained
WwB	Williamson silt loam, 2 to 6 % slopes	moderately well drained
WwC	Williamson silt loam, rolling	moderately well drained

Fluvaquents, Minoa fine sandy loam, Niagara silt loam, and Wayland silt loam have a major component of hydric soils (drainage classes range from somewhat poorly drained to poorly drained). The remaining soil units have no hydric components and are somewhat excessively drained to moderately well drained soils (Figure 4).

The Surface Water Classification Map shows several mapped streams within the ROW (Figure 5). They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. All of these streams have a water quality Class and Standard of C. To be state-protected, a waterbody has to have a Class of C or higher and a Standard of CT (trout) or higher.

There are areas of the 100-year floodplain shown on the FEMA Flood Insurance Rate Map (Figure 6). These floodplains are associated with Mud Creek.

The 2009 aerial photograph (Figures 7-1 to 7-7) shows that within the ROW there is a mixture of undeveloped land, agricultural land, and residential land.

The drainage basin for the ROW is approximately 1,228 acres (Figure 8). Several Relatively Permanent Waterbodies (RPW's) occur within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. These RPW's all flow into the Oneida River, a Traditional Navigable Waterbody (TNW), which is located approximately 3,000 feet northwest of the ROW (Figure 9).

4.2 Sewer Line Right-of-Way Ecology

The ROW consisted of open fields, scrub-shrub uplands, deciduous forest uplands, and wetlands. All cover types were found throughout the ROW. Open fields were dominated by herbaceous plant species. Herbaceous species that dominated this cover type included broad leaf plantain (*Plantago major*), red clover (*Trifolium pratense*), alfalfa (*Medicago sativa*), sedge (*Carex* sp.), Canada goldenrod (*Solidago canadensis*), hawkweed oxtongue (*Picris hieracioides*), wild carrot (*Daucus carota*), white bedstraw (*Galium mollugo*), blackberry (*Rubus allegheniensis*), bluegrass (*Poa* sp.), and bentgrass (*Agrostis* sp.).

Scrub-shrub uplands were dominated by common buckthorn (*Rhamnus cathartica*) and green ash (*Fraxinus pennsylvanica*) in the shrub layer. There was no tree layer. The herbaceous layer contained bluegrass, Canada goldenrod, and aster (*Aster* sp.).

Deciduous forest uplands were dominated by yellow birch (*Betula allegheniensis*), bitternut hickory (*Carya cordiformis*), eastern hemlock (*Tsuga canadensis*), green ash, red maple (*Acer rubrum*), black cherry (*Prunus serotina*), and apple (*Malus* sp.) in the tree layer. The shrub layer was sparse but contained red oak (*Quercus rubra*), bitternut hickory, and common buckthorn. Bitternut hickory, red maple, and green ash seedlings were found in the herbaceous layer along with poison ivy (*Toxicodendron radicans*), Canada goldenrod, and Honeysuckle (*Lonicera* sp.).

4.3 Wetlands/Water Resources Descriptions

Sixteen wetlands/water resources were found on or adjacent to the ROW and are described in the table below. The boundaries were flagged with coded surveyor's ribbon using the methods described in the Corps 2012 Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual and the Freshwater Wetlands Delineation Manual. The delineated wetland boundaries with sample plot and photograph locations are shown on Figures 10-1 through 10-19 and were surveyed by CHA. Wetlands/water resources within the ROW total approximately 3.36 acres in size.

Photographs and field data sheets are provided in Appendix A and Appendix B, respectively. Jurisdictional Determination (JD) information for the following wetlands/water resources can be found in Appendix C.

Table 2.
Details of Wetlands Along the OCIDA Sewer Line Route Right-of-Way

Wetland/ Waters ID	Figure Number	Wetland/ Waters Size (acres within ROW)	Stream Length (feet)	Wetland/Waters Mapped Soil Type	Wetland/Waters Cover Type	Dominant Plants
A	10-2	0.06	84	Dunkirk silt loam, rolling	Emergent Wetland	*Acorus americanus*
B	10-2	-	66	Collamer silt loam, 2 to 6 % slopes	Wet Meadow	*Carex* sp.
C	10-3	0.11	-	Collamer silt loam, 2 to 6 % slopes	Emergent Wetland	*Populus deltoides, Fraxinus pennsylvanica, Phragmites australis*
D	10-4	0.23	258	Dunkirk silt loam, rolling/Wayland silt loam	Wet Meadow/Deciduous Forest Wetland	*Phalaris arundinacea/Acer saccharinum, Rhamnus cathartica, Cornus amomum, Onoclea sensibilis, Lysimachia nummularia*

Table 2. (cont.)

Wetland/ Waters ID	Figure Number	Wetland/ Waters Size (acres within ROW)	Stream Length (feet)	Wetland/Waters Mapped Soil Type	Wetland/Waters Cover Type	Dominant Plants
E	10-5	0.05	-	Collamer silt loam, 2 to 6 % slopes	Deciduous Forest Wetland	*Fraxinus pennsylvanica, Cornus amomum, Erigeron annuus, Epilobium hirsutum*
F	10-5	0.09	-	Collamer silt loam, 2 to 6 % slopes	Emergent Wetland	*Cornus amomum, Typha angustifolia, Symphyotrichum novi-belgii*
G	10-6	0.55	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Salix* sp., *Lysimachia nummularia, Aster* sp.
H	10-6	0.14	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Cornus amomum, Epilobium hirsutum, Aster* sp.
I	10-9	0.16	116	Fluvaquents, frequently flooded	Scrub-shrub Wetland	*Populus deltoides, Cornus amomum, Salix* sp., *Onoclea sensibilis, Toxicodendron radicans*
J	10-9	-	99	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Salix* sp., *Cornus amomum, Poa* sp.
K	10-9	0.07	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Cornus amomum, Impatiens capensis, Poa* sp., *Epilobium hirsutum*
L	10-13, 10-14	1.22	119	Williamson silt loam, 0 to 2 % slopes/Williamson silt loam, rolling	Wet Meadow/ Deciduous Forest Wetland	*Phragmites australis, Eutrochium maculatum, Eupatorium perfoliatum, Lythrum salicaria/Acer rubrum, Onoclea sensibilis, Osmunda regalis*
M	10-16	0.01	-	Collamer silt loam, 0 to 2 % slopes	Wet Meadow	*Cornus alba, Phragmites australis*
N	10-12	0.67	120	Collamer silt loam, 2 to 6 % slopes/Dunkirk silt loam, rolling	Wet Meadow/Scrub-Shrub Wetland	*Phragmites australis/Cornus amomum, Aster* sp., *Carex* sp.
O	10-16	-	-	Niagara silt loam, 0 to 4 % slopes	Wet Meadow	*Acer saccharinum, Phragmites australis, Aster* sp.
P	10-16	-	-	Niagara silt loam, 0 to 4 % slopes	Deciduous Forest Wetland	*Acer saccharinum, Cornus amomum, Phragmites australis*

A JD Form for the wetlands within the ROW is provided in Appendix C. Since all the wetlands have an apparent surface water connection to a tributary system of navigable waters, they are not isolated wetlands. Therefore, TES considers these wetlands to be Corps-jurisdictional areas.

5.0 SUMMARY

Terrestrial Environmental Specialists, Inc. (TES) performed a wetland investigation for the Onondaga County Industrial Development Agency (OCIDA) proposed sanitary sewer line route in the Town of Clay, Onondaga County, New York. The proposed sewer line begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks.

TES collected and reviewed available background information and maps, including agency resource information maps, soils descriptions, and an aerial photograph to locate potential wetlands within the ROW.

The NYSDEC New York State Freshwater Wetlands map shows one state-regulated wetland within the ROW. This wetland (BRE-17) is a Class I wetland according to the NYSDEC wetland ranking system. Wetland BRE-17 is associated with Mud Creek.

The Surface Water Classification Map shows several mapped streams within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. All of these streams have a water quality Class and Standard of C. To be state-protected, a waterbody has to have a Class of C or higher and a Standard of CT (trout) or higher.

A preliminary field review of the ROW was conducted by TES on May 17, 2012. Flagging of the wetlands and data collection was performed by TES on September 27, 28, and October 1, 2012. The wetland boundaries were identified and delineated using the state and federal criteria for vegetation, soils, and hydrology.

The drainage basin for the ROW is approximately 1,228 acres. Several Relatively Permanent Waterbodies (RPW's) occur within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. These RPW's all flow into the Oneida River, a Traditional Navigable Waterbody (TNW), which is approximately 3,000 feet northwest of the ROW.

Sixteen wetlands/water resources were found on or adjacent to the ROW and are referred to as Wetland A (0.06 acre), Wetland B (66 linear feet), Wetland C (0.11 acre), Wetland D (0.23 acre), Wetland E (0.05 acre), Wetland F (0.09 acre), Wetland G (0.55 acre), Wetland H (0.14 acre), Wetland I (0.16 acre), Wetland J (99 linear feet), Wetland K (0.07 acre), Wetland L (1.22 acres), Wetland M (0.01 acre), Wetland N (0.67 acre), Wetland O (0.0 acre), and Wetland P (0.0 acre) . CHA surveyed the delineated wetland boundaries. Wetlands within the ROW totaled approximately 3.36 acres in size.

A JD Form for the wetlands within the ROW is provided in Appendix C. Since all the wetlands have an apparent surface water connection to a tributary system of navigable waters (i.e. the Oneida River), they are not isolated wetlands. Therefore, TES considers these wetlands to be Corps-jurisdictional areas.

6.0 REFERENCES

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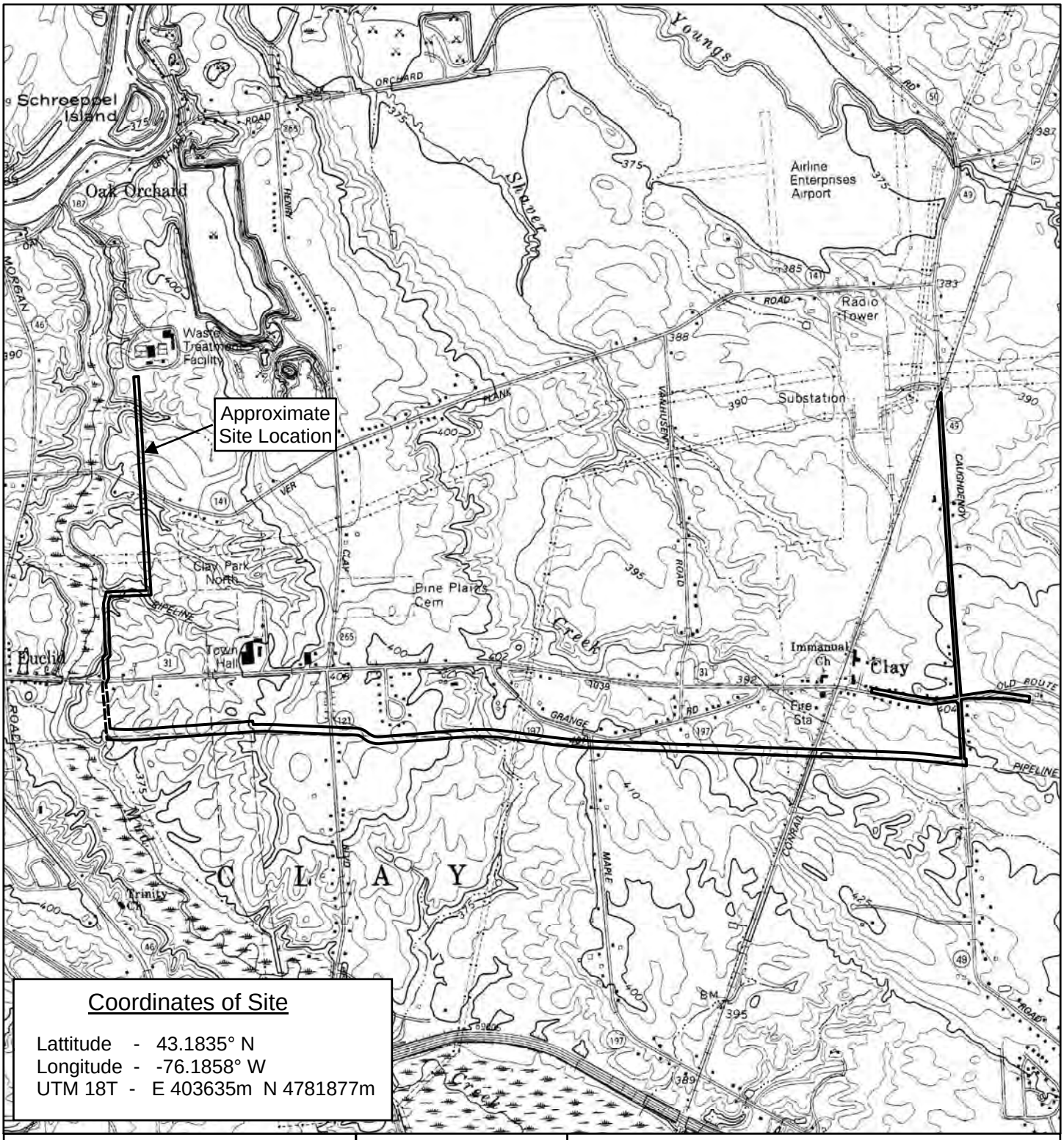

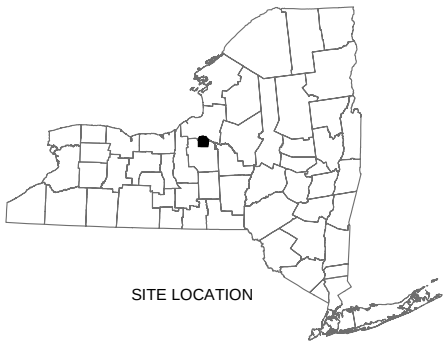

0 2,000 Feet

1 inch = 2,000 feet

N

Figure 1. NYS DOT Topographic Map

Site Location

Brewerton Quadrangle

1989

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

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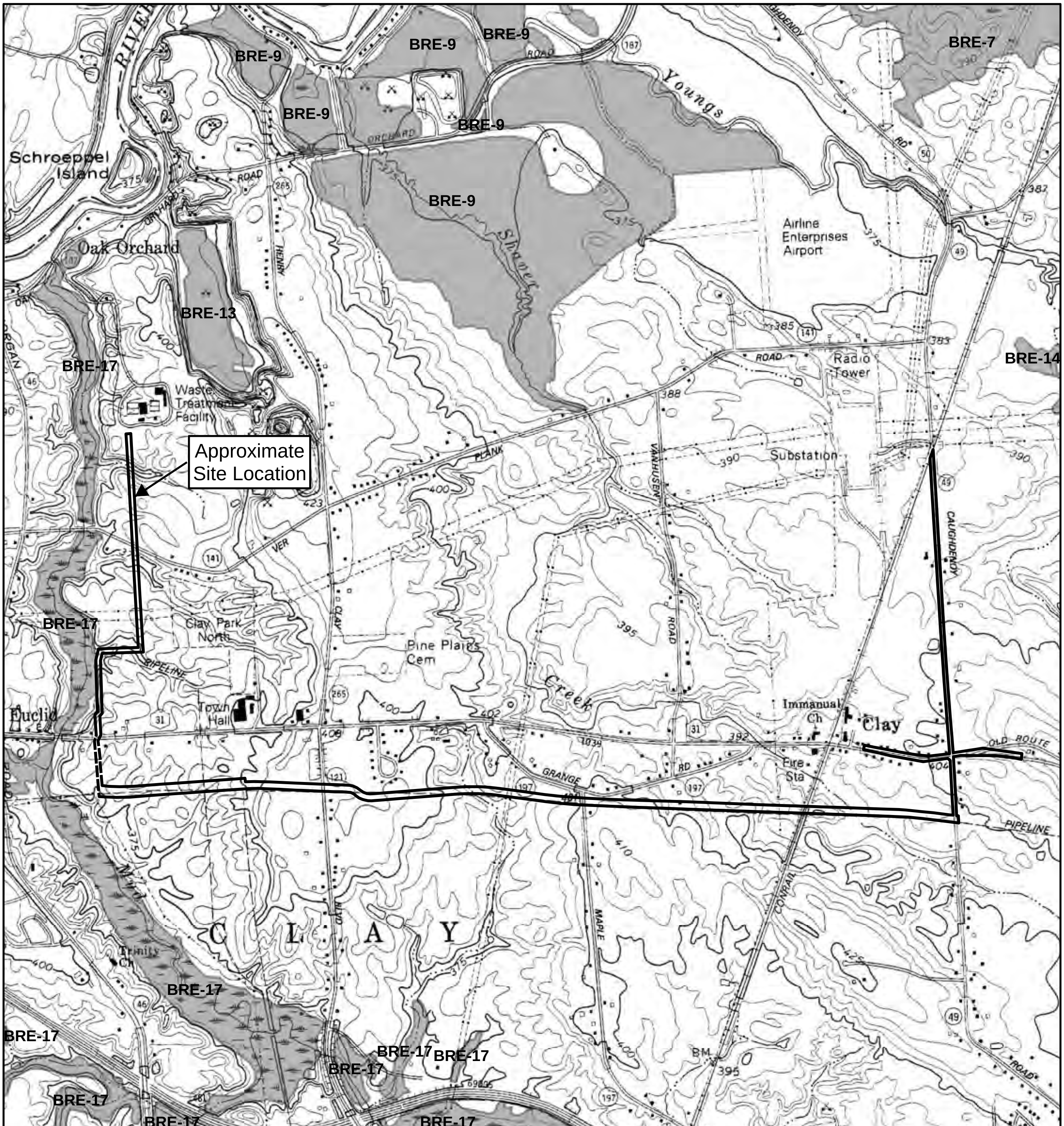


Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

0 2,000 Feet

1 inch = 2,000 feet

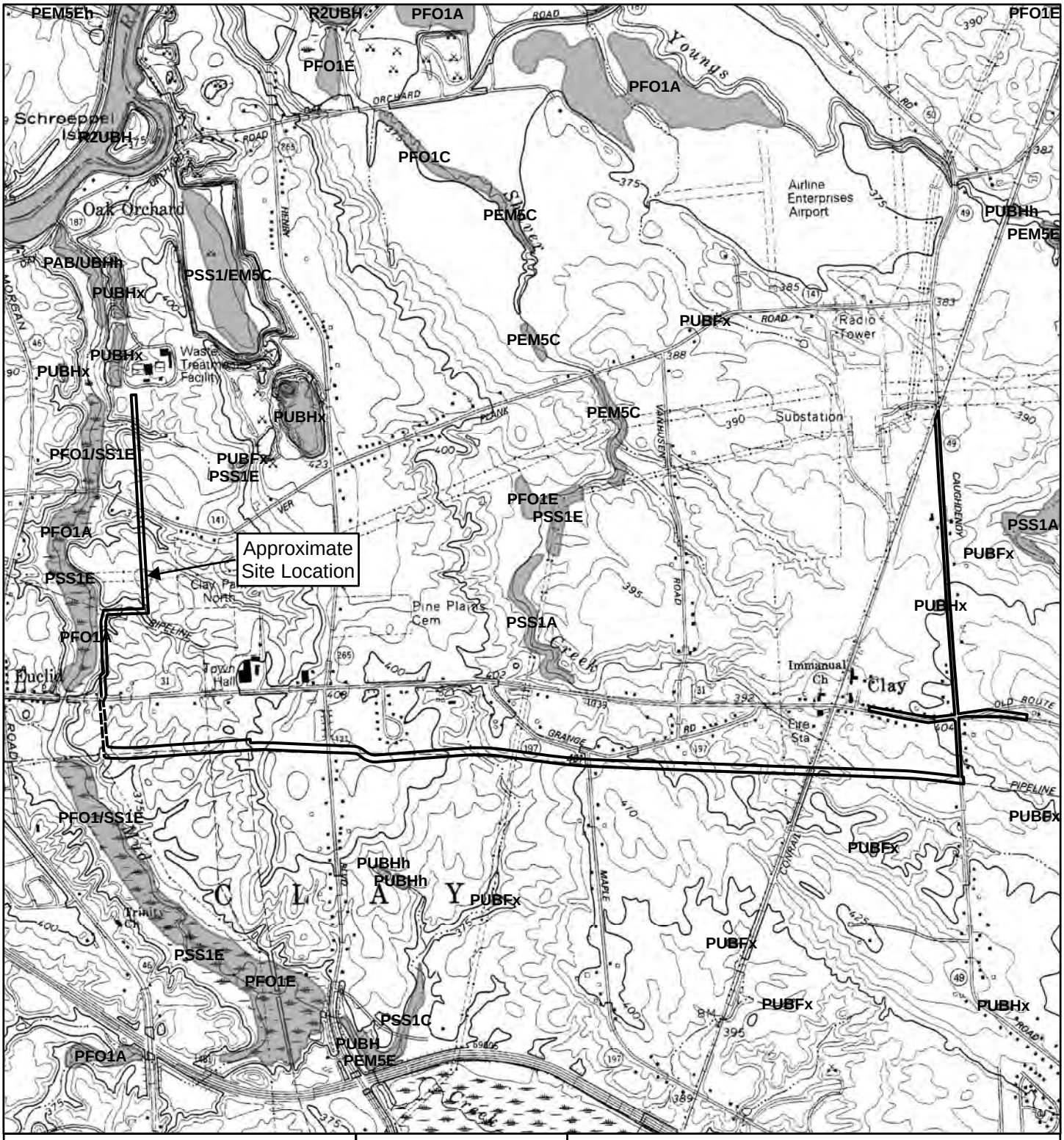
N

Figure 2. NYS Freshwater Wetlands Map

NYS Department of Environmental Conservation
cugir.mannlib.cornell.edu

Onondaga County
2010

TES File: IDA-2033A\2033A-Fig2.mxd\6-26-2013



0 2,000 Feet

1 inch = 2,000 feet

N

Figure 3. National Wetlands Inventory Map

U.S. Fish & Wildlife Service
www.fws.gov/nwi

2011

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

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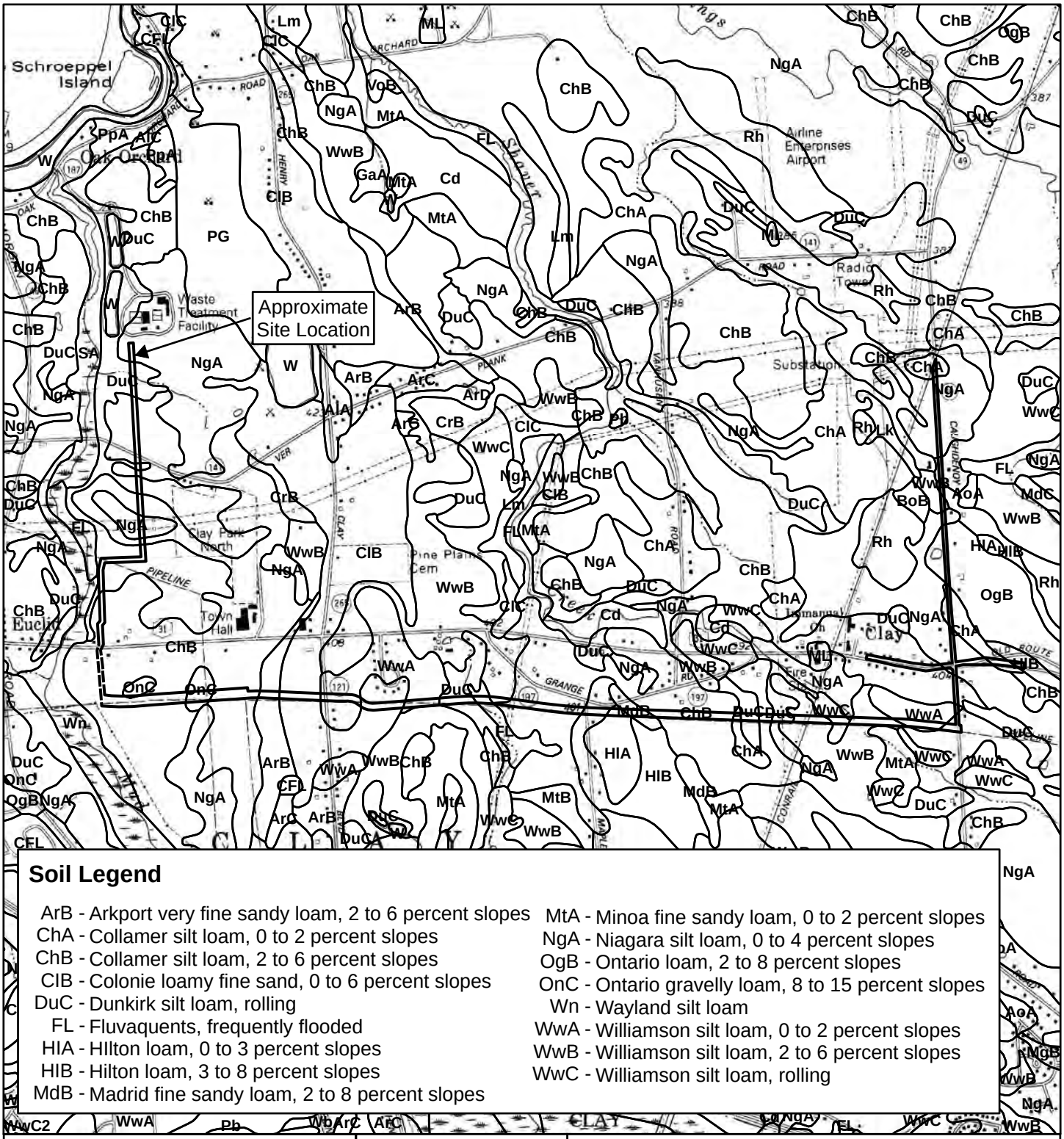

Figure 4. Soil Survey Map

Natural Resources Conservation Service
SoilDataMart.nrcs.usda.gov
2011

Onondaga County Soil Survey

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

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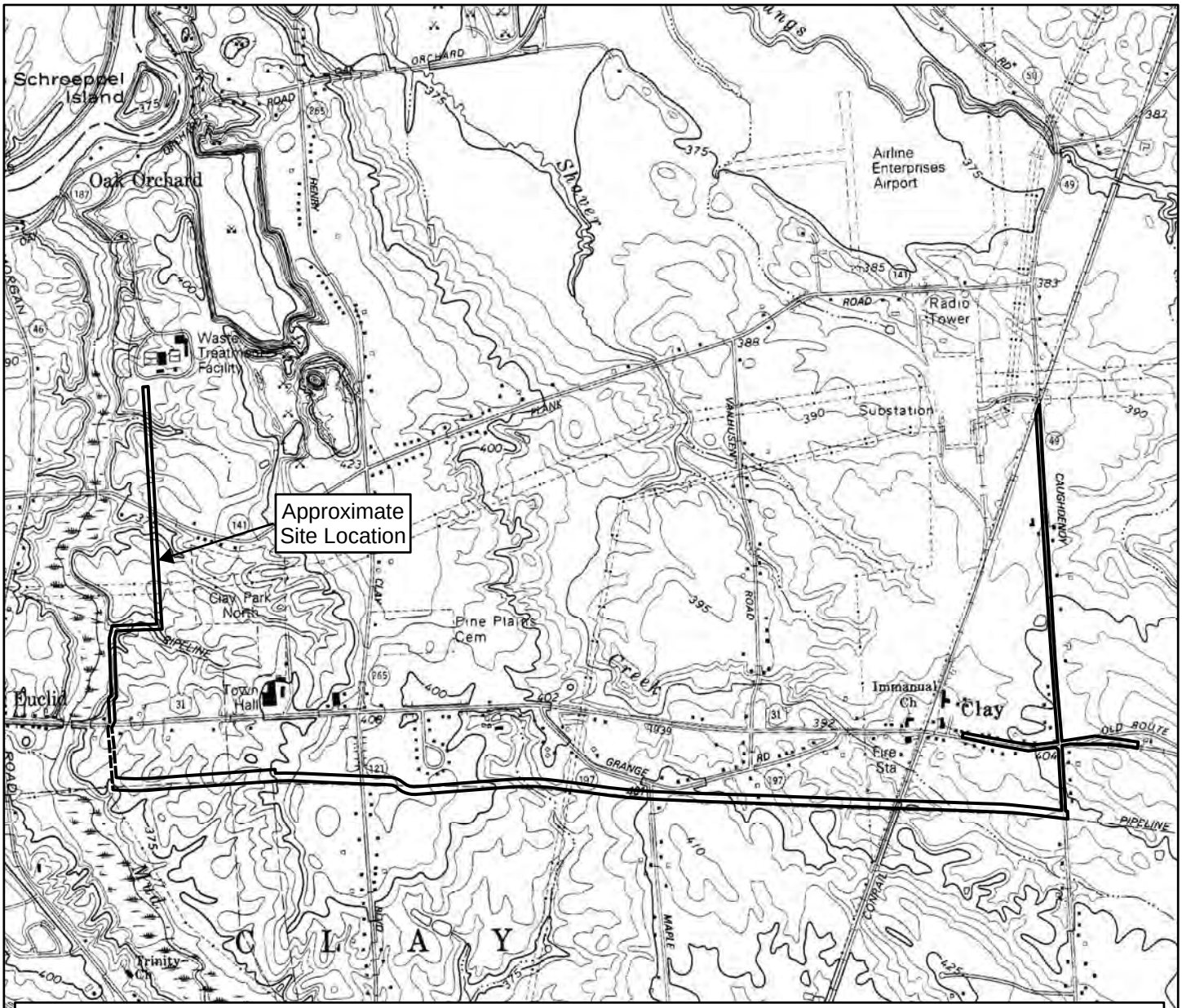

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
10	Ont. 66-11-3a and tribs., 3b, 4, 5, 7, 10 and tribs., 11 and tribs., 12 and tribs., 13 and tribs., 14 and tribs.	Tribs. of Oneida River	Enter Oneida River from a point 1.0 mile north of Bonsted Road and 1.5 miles southwest of Pleasant Lake at a point 0.5 mile south of Orangeport Road and 1.9 miles west of Clay-Cicero Town line.	H-14ne H-15nw H-15ne H-15-se	C	C

Title 6 NYCRR, Chapter X
Article 14, Part 899.4 (1996)

Map H-15nw

0 2,000 Feet

1 inch = 2,000 feet

N

Figure 5. Surface Water Classification Map

NYSDEC

Brewerton Quadrangle

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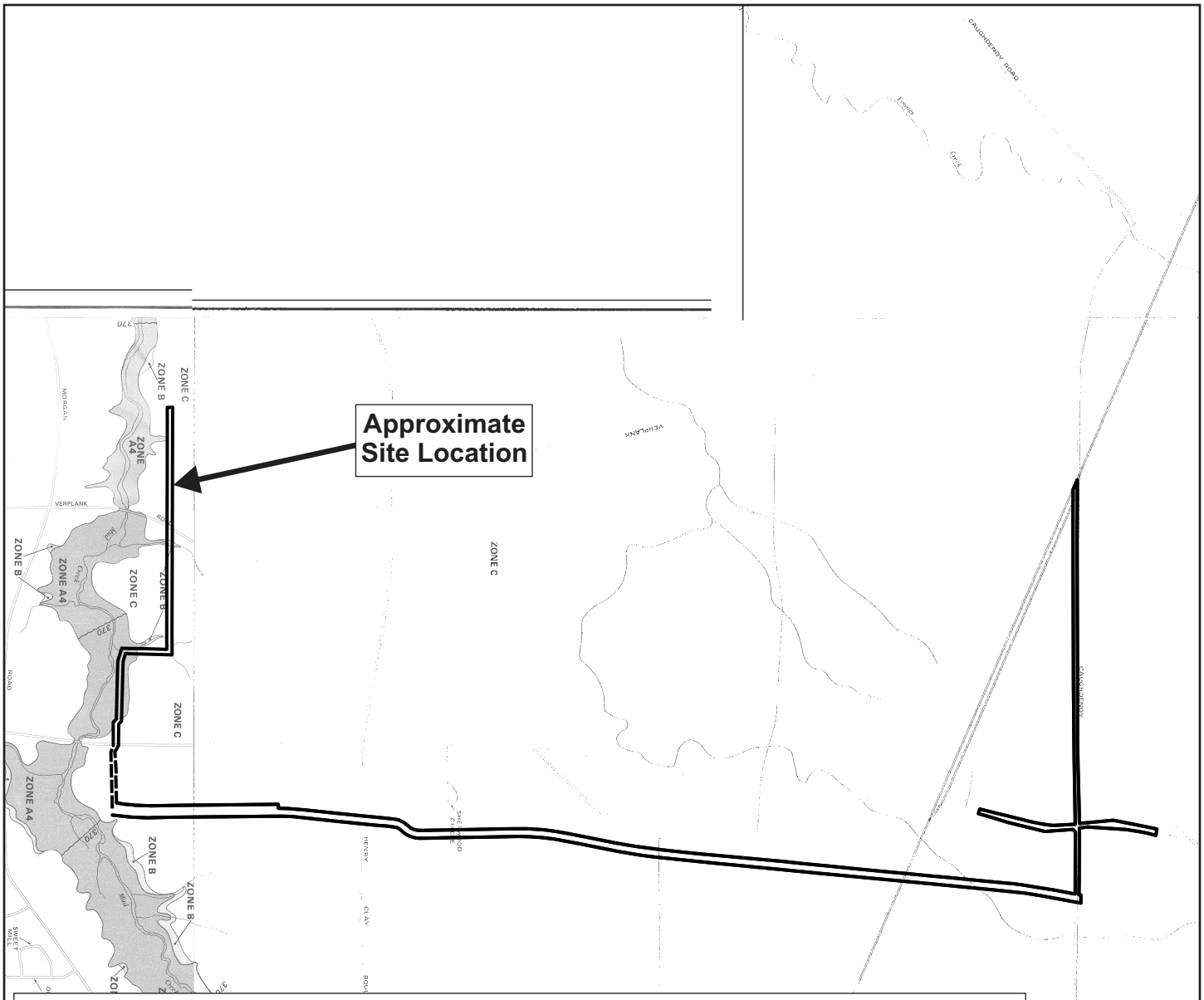
TES File: IDA-2033A\2033A-Fig5.mxd\6-26-2013



LEGEND

Zone A1-A30 - Areas of 100-year flood; base flood elevations and flood hazard factors determined.

Zone B - Areas between limits of the 100-year flood and the 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

Zone C - Areas of minimal flooding.

Panel Numbers:

360573 0010 D
(Effective Date 3/16/1992)

360573 0025 C
(Effective Date 4/17/1989)

360573 0005 C
(Effective Date 4/1/1980)

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

0' 1000' 2000'

SCALE 1" = 2000'

NORTH

Figure 6. Flood Insurance Rate Map

Federal Emergency Management Agency

Town of Clay, NY

TES File: IDA-2033A\2033A-Fig6.cdr\6-26-2013

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

N

0 300

Feet

1 inch = 300 feet

Figure 7-1. Aerial Photograph of Site with Wetland Locations

Sheet 1 of 6

TES File: IDA-2033A\2033A-Aerial1of6.mxd\6-13-2013

N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-2. Aerial Photograph of Site with Wetland Locations

Sheet 2 of 6

TES File: IDA-2033A\2033A-Aerial2of6.mxd\6-13-2013

N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-3. Aerial Photograph of Site with Wetland Locations

Sheet 3 of 6

TES File: IDA-2033A\2033A-Aerial3of6.mxd\6-13-2013

N

0 300

Feet

1 inch = 300 feet

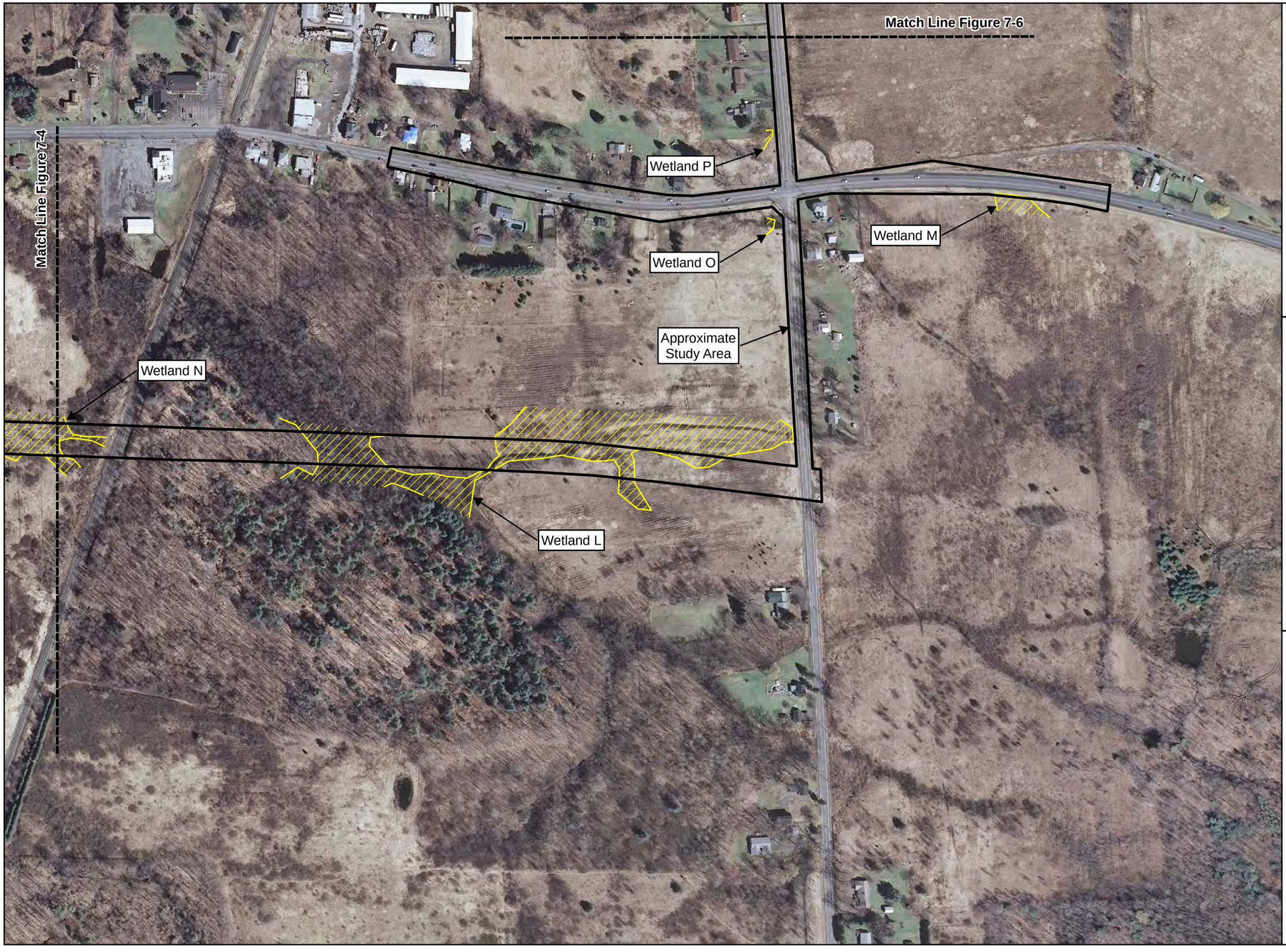
Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-4. Aerial Photograph of Site with Wetland Locations

Sheet 4 of 6

TES File: IDA-2033A\2033A-Aerial4of6.mxd\6-13-2013



N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-5. Aerial Photograph of Site with Wetland Locations

Sheet 5 of 6

TES File: IDA-2033A\2033A-Aerial5of6.mxd\6-13-2013

Aerial Photograph Obtained
from NYS GIS Clearinghouse
2009

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

N

0 300

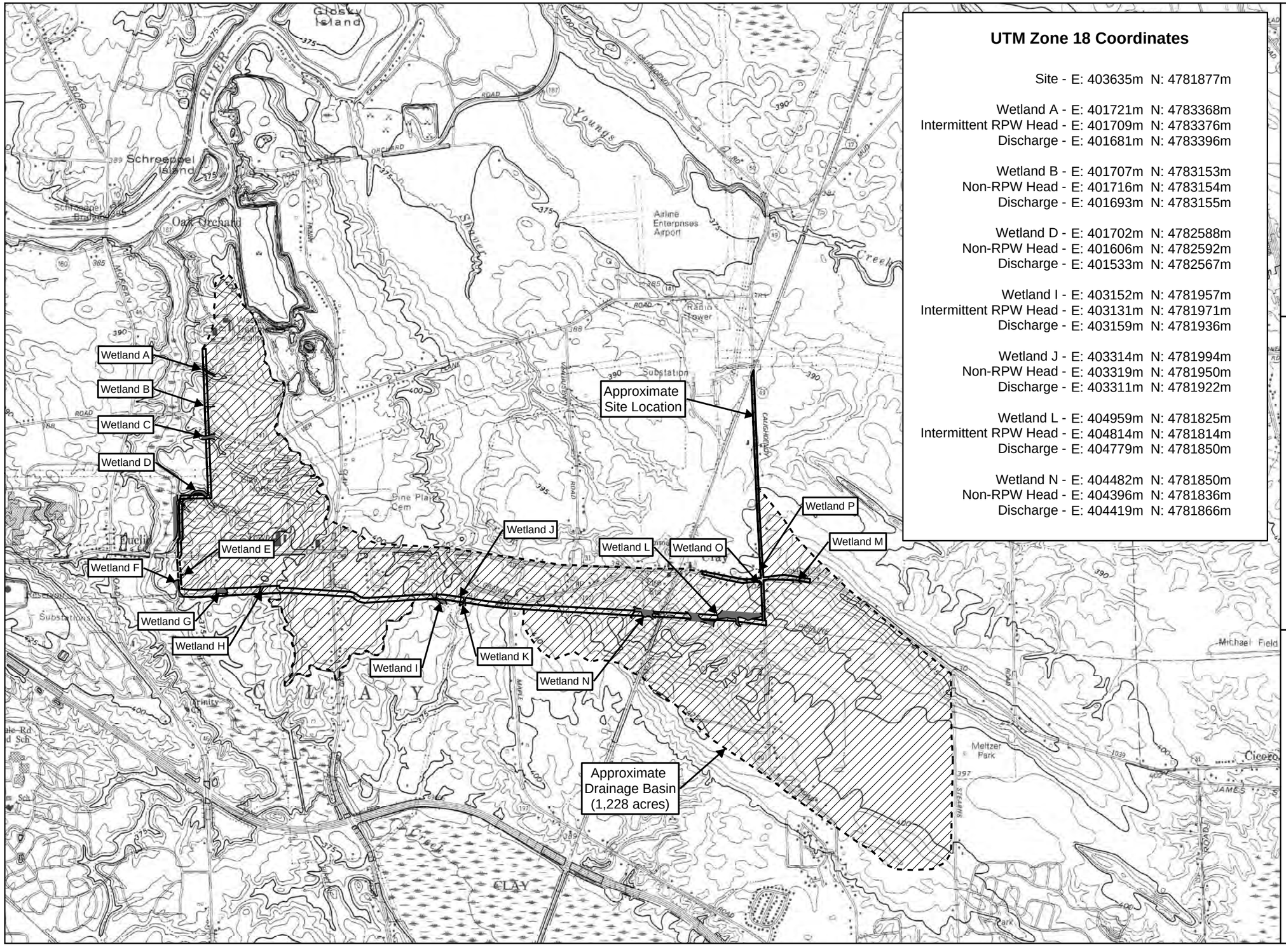
Feet

1 inch = 300 feet

Figure 7-6. Aerial Photograph of Site with Wetland Locations

Sheet 6 of 6

TES File: IDA-2033A\2033A-Aerial6of6.mxd\6-13-2013



UTM Zone 18 Coordinates

Site - E: 403635m N: 4781877m

Wetland A - E: 401721m N: 4783368m
Intermittent RPW Head - E: 401709m N: 4783376m
Discharge - E: 401681m N: 4783396m

Wetland B - E: 401707m N: 4783153m
Non-RPW Head - E: 401716m N: 4783154m
Discharge - E: 401693m N: 4783155m

Wetland D - E: 401702m N: 4782588m
Non-RPW Head - E: 401606m N: 4782592m
Discharge - E: 401533m N: 4782567m

Wetland I - E: 403152m N: 4781957m
Intermittent RPW Head - E: 403131m N: 4781971m
Discharge - E: 403159m N: 4781936m

Wetland J - E: 403314m N: 4781994m
Non-RPW Head - E: 403319m N: 4781950m
Discharge - E: 403311m N: 4781922m

Wetland L - E: 404959m N: 4781825m
Intermittent RPW Head - E: 404814m N: 4781814m
Discharge - E: 404779m N: 4781850m

Wetland N - E: 404482m N: 4781850m
Non-RPW Head - E: 404396m N: 4781836m
Discharge - E: 404419m N: 4781866m

N

0 2,000

Feet

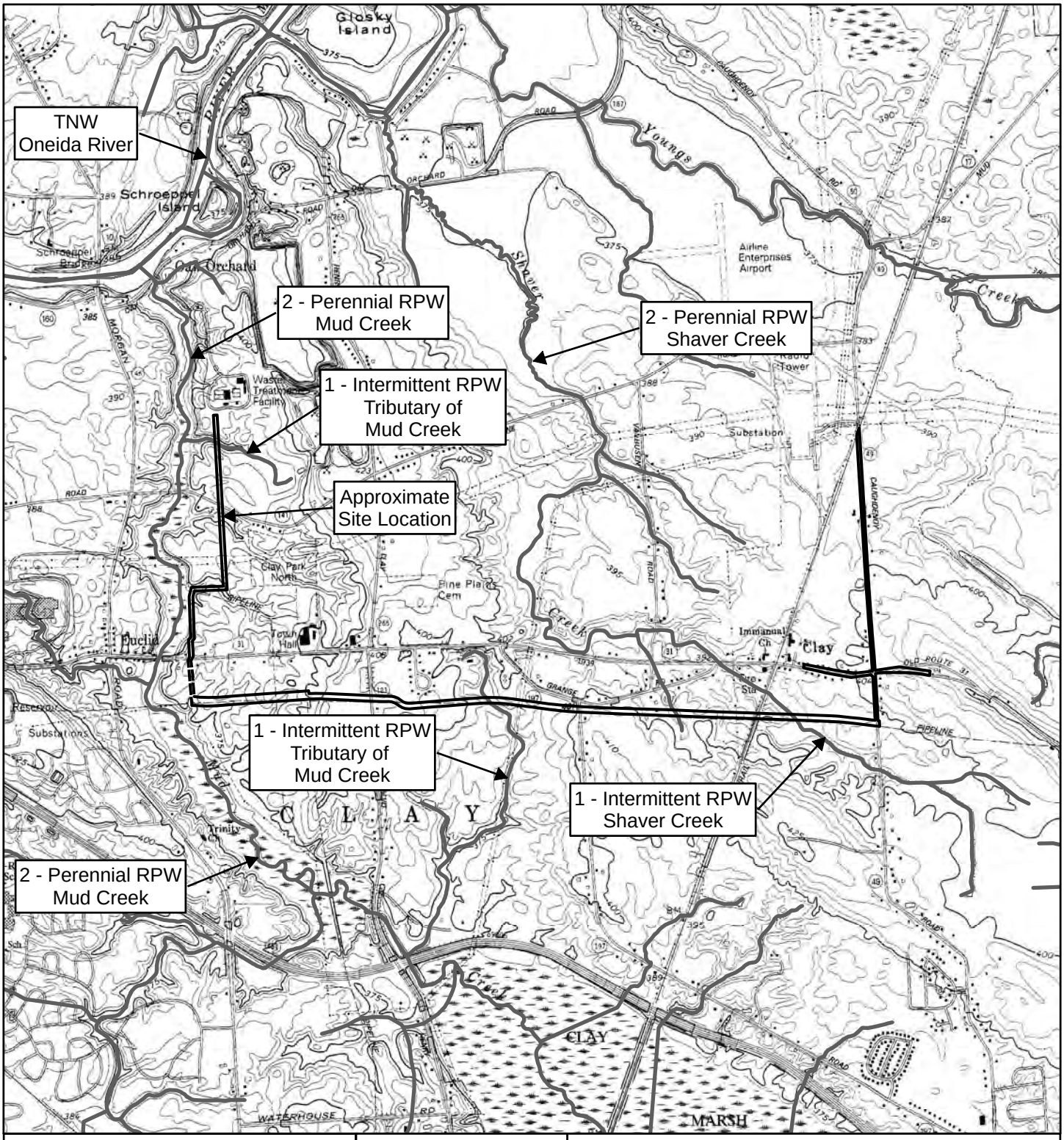
1 inch = 2,000 feet

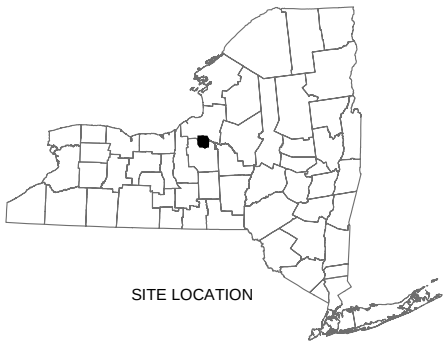
Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

Figure 8.

Drainage Basin Map

TES File: IDA-2033A\2033A-Drainage.mxd\6-26-2013





0 2,500 Feet

1 inch = 2,500 feet

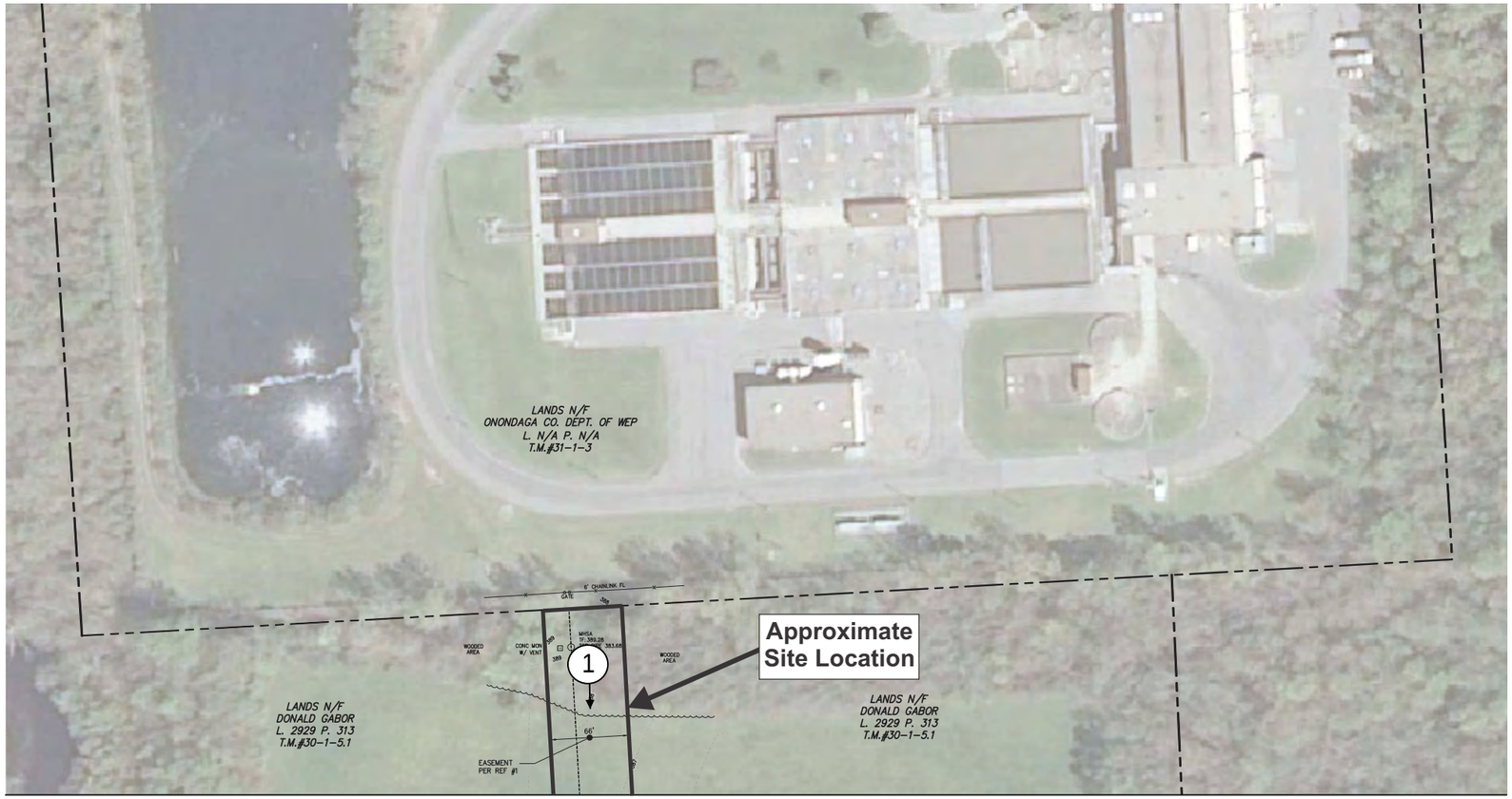
N

Figure 9.

Stream Reach Map

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

TES File: IDA-2033A\2033A-StreamReach.mxd\6-26-2013



MATCH TO SHEET 2 OF 19

LEGEND

1 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-1.

Wetland Survey Map with Plot and Photograph Locations

Sheet 1 of 19

TES File: IDA-2033A\2033A-PlotPhoto1.cdr\6-25-2013

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

LIGHT, BOL, HYD, MHW, GSO, B-1, IRON PIN, REBAR, IRON PIPE

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

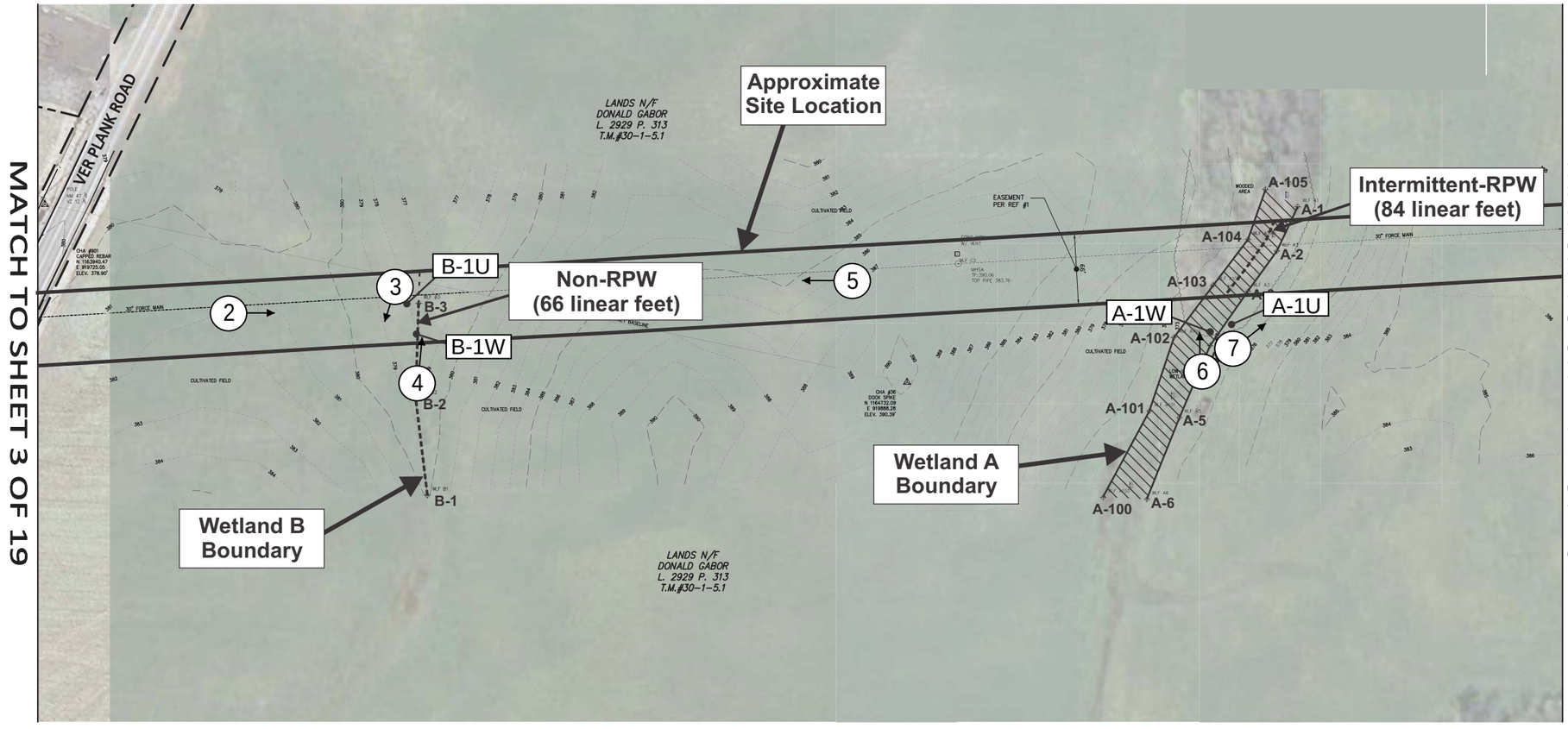
CB, MHSA, CO, POLE, ELEC MH, WV, GV, SIG BOX

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

A-1W Sample Plot Location

2 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-2.

Wetland Survey Map with Plot and Photograph Locations

Sheet 2 of 19

TES File: IDA-2033A\2033A-PlotPhoto2.cdr\6-26-2013

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

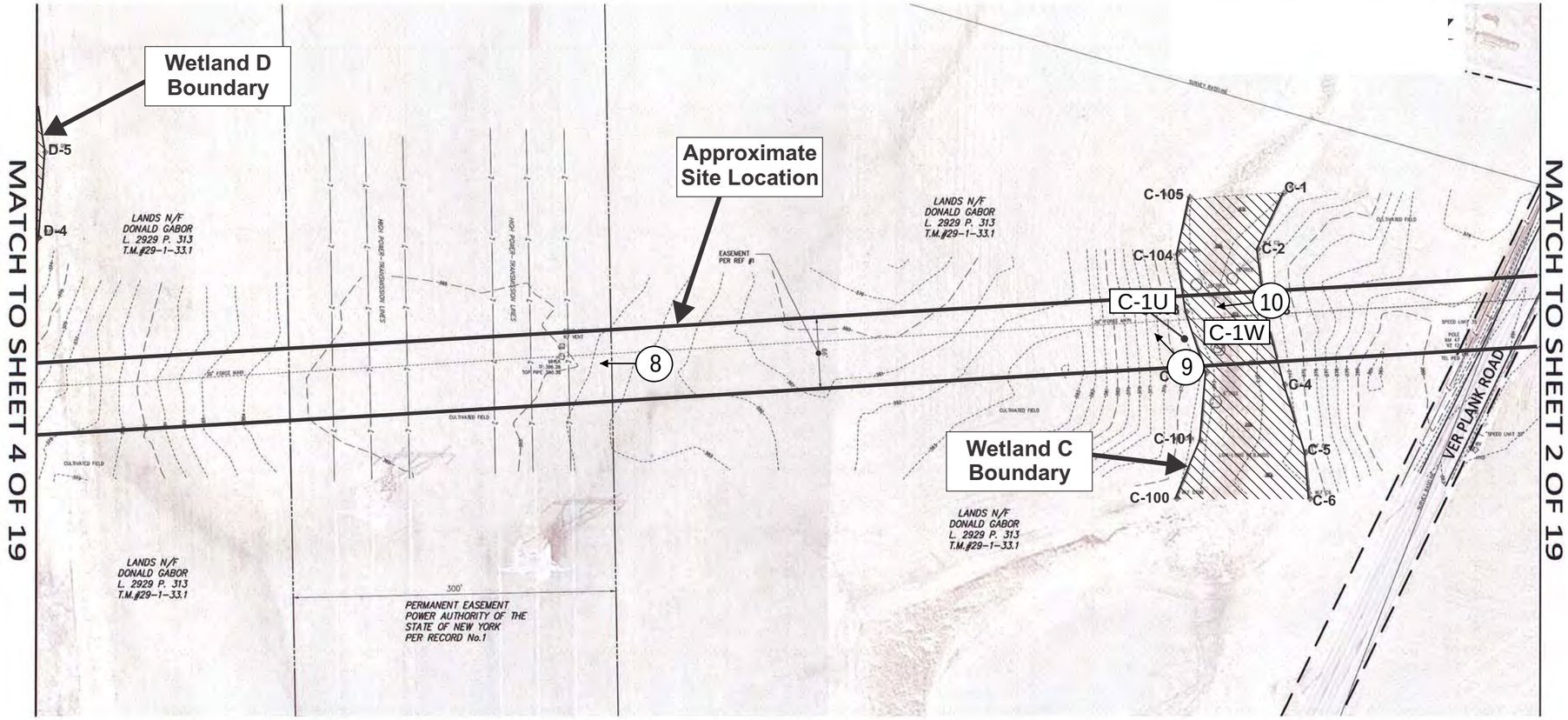
PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

C-1W Sample Plot Location

8 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

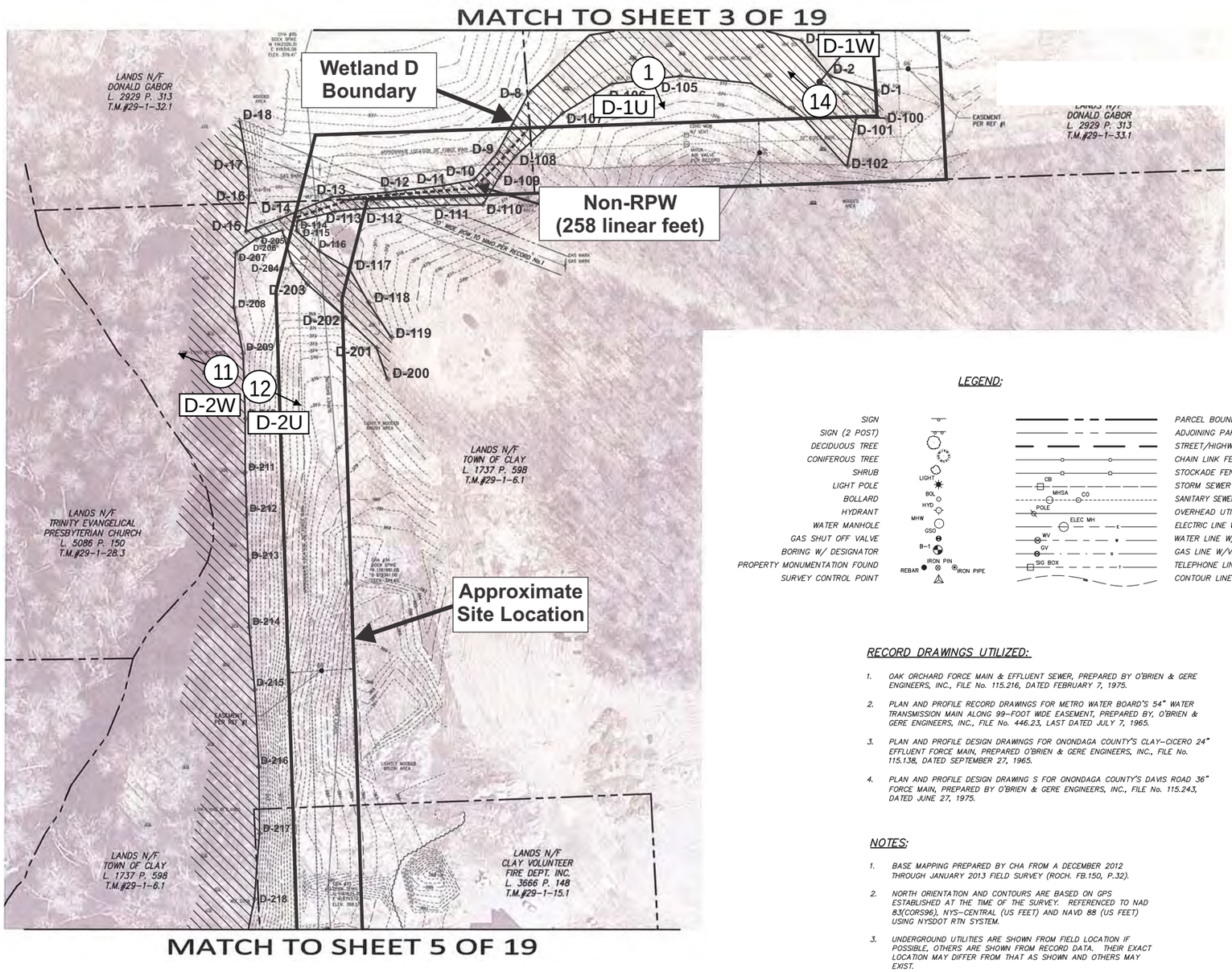
1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

Figure 10-3.

Wetland Survey Map with Plot and Photograph Locations

Sheet 3 of 19

TES File: IDA-2033A\2033A-PlotPhoto3.cdr\6-25-2013



LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. *OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.*
2. *PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.*
3. *PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.*
4. *PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.*

NOTES:

1. *BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).*
2. *NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.*
3. *UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.*
4. *SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.*
5. *NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.*
6. *4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.*

LEGEND

D-1W Sample Plot Location

11 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

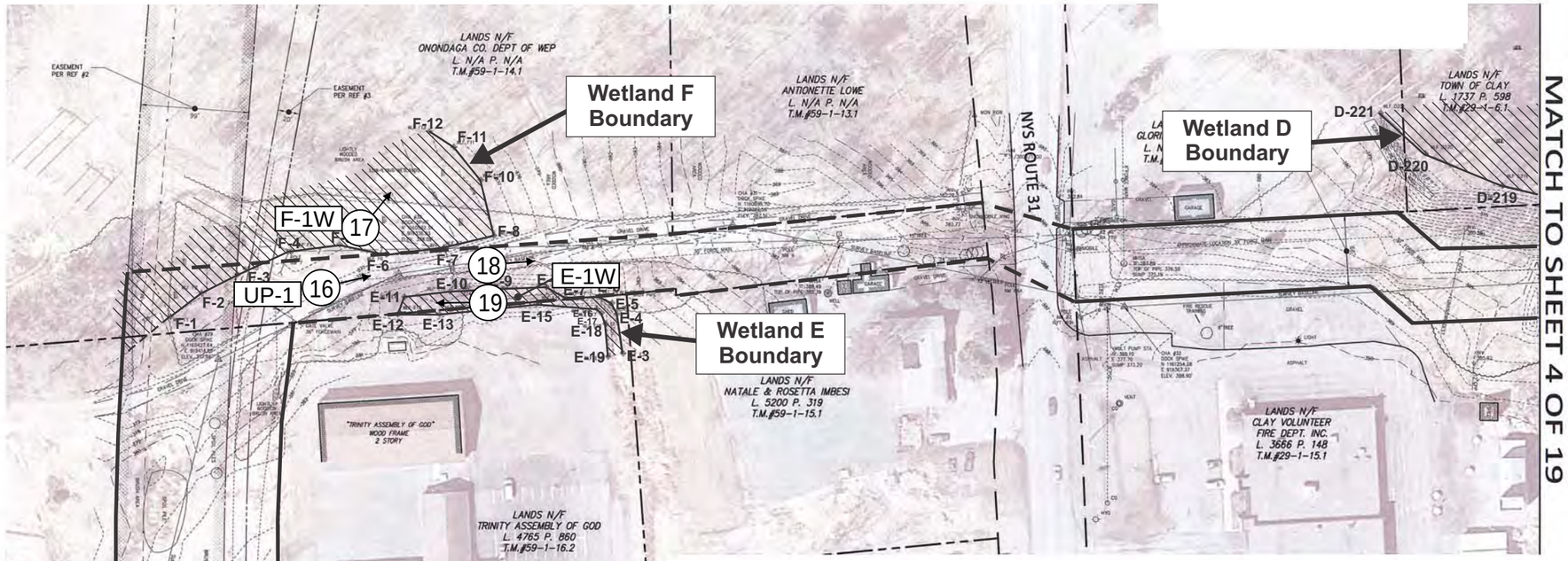
Base Map Provided by CHA Companies

Figure 10-4.

Wetland Survey Map with Plot and Photograph Locations

Sheet 4 of 19

TES File: IDA-2033A\2033A-PlotPhoto4.cdr\6-26-2013



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	WATER LINE W/VALVE
BORING W/ DESIGNATOR	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
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4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

F-1W Sample Plot Location

15 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

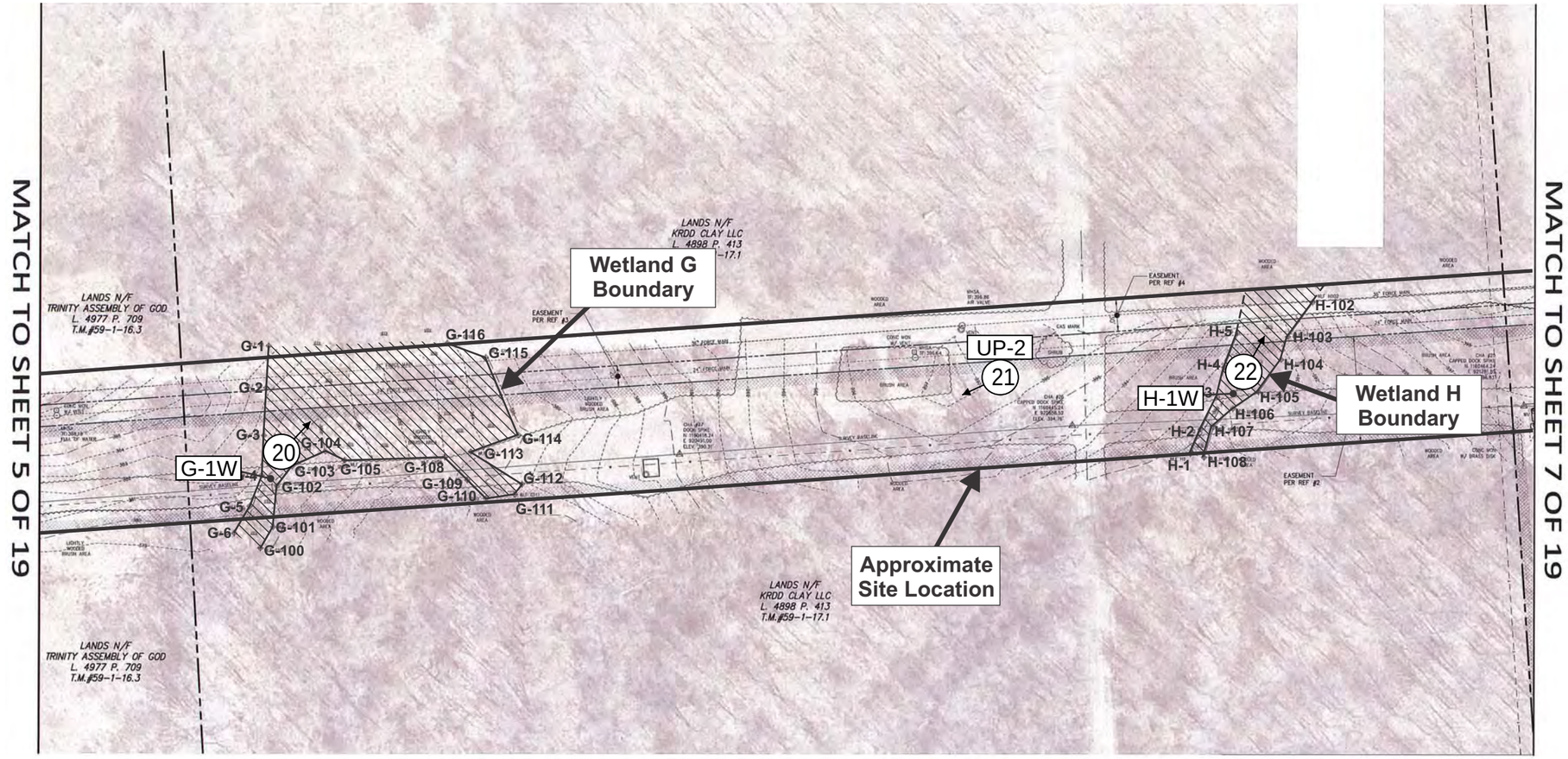
Base Map Provided by CHA Companies

Figure 10-5.

Wetland Survey Map with Plot and Photograph Locations

Sheet 5 of 19

TES File: IDA-2033A\2033A-PlotPhoto5.cdr\6-25-2013



LEGEND

G-1W Sample Plot Location

20 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-6.

Wetland Survey Map with Plot and Photograph Locations

Sheet 6 of 19

TES File: IDA-2033A\2033A-PlotPhoto6.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

(REBAR, IRON PIN, IRON PIPE)

- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
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3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

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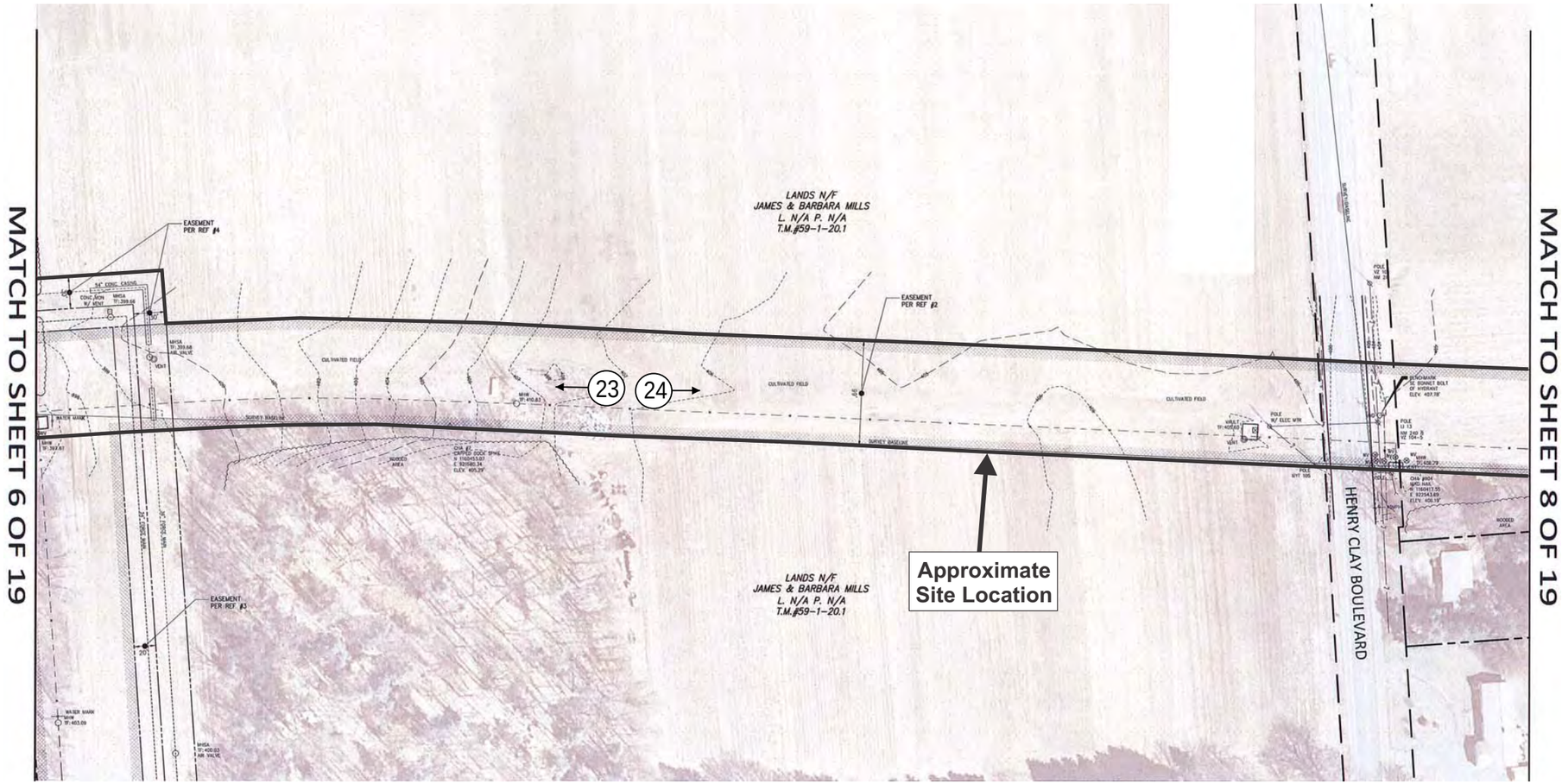
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

23 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-7.

Wetland Survey Map with Plot and Photograph Locations

Sheet 7 of 19

TES File: IDA-2033A\2033A-PlotPhoto7.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

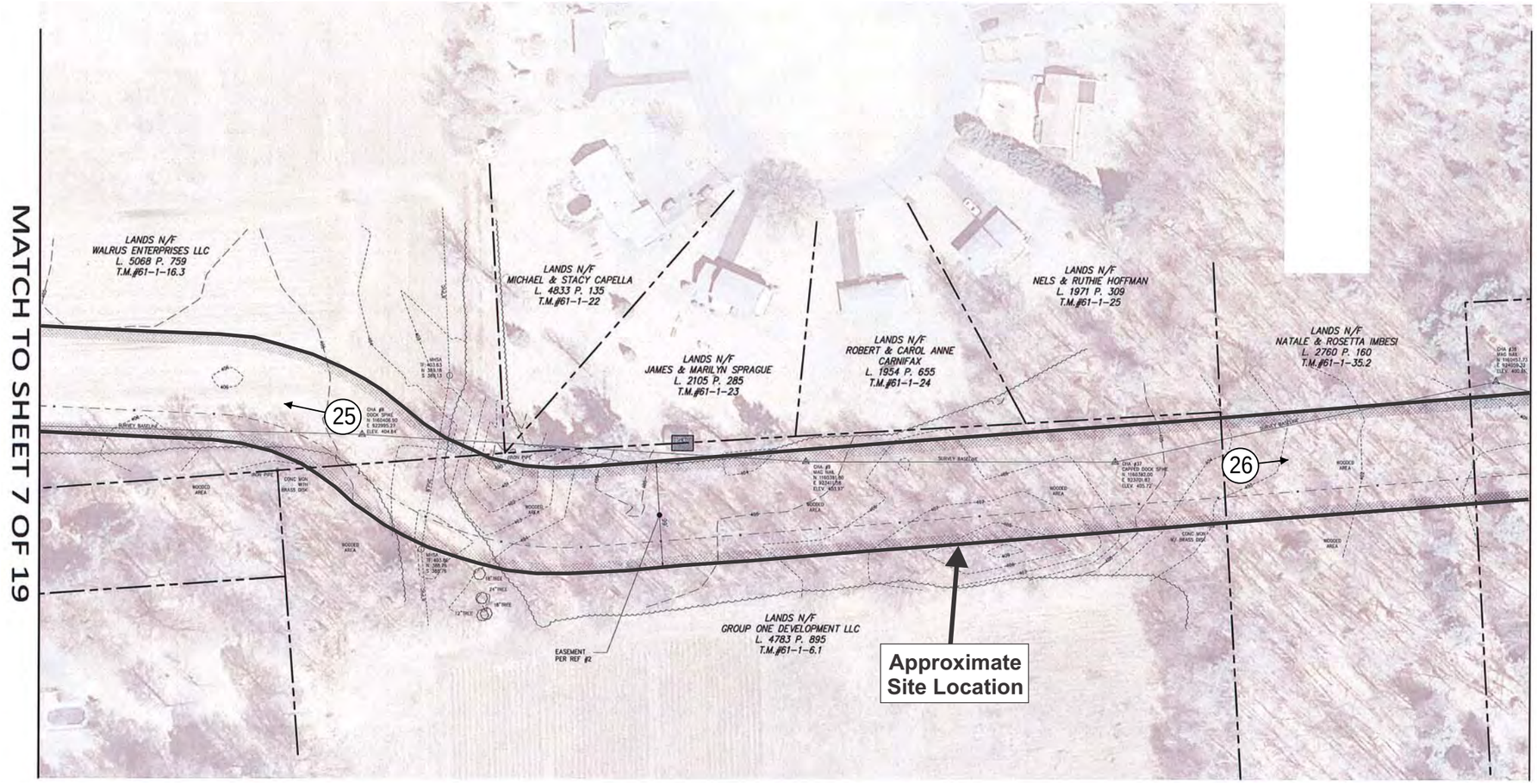
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	WATER LINE W/VALVE
BORING W/ DESIGNATOR	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

25 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

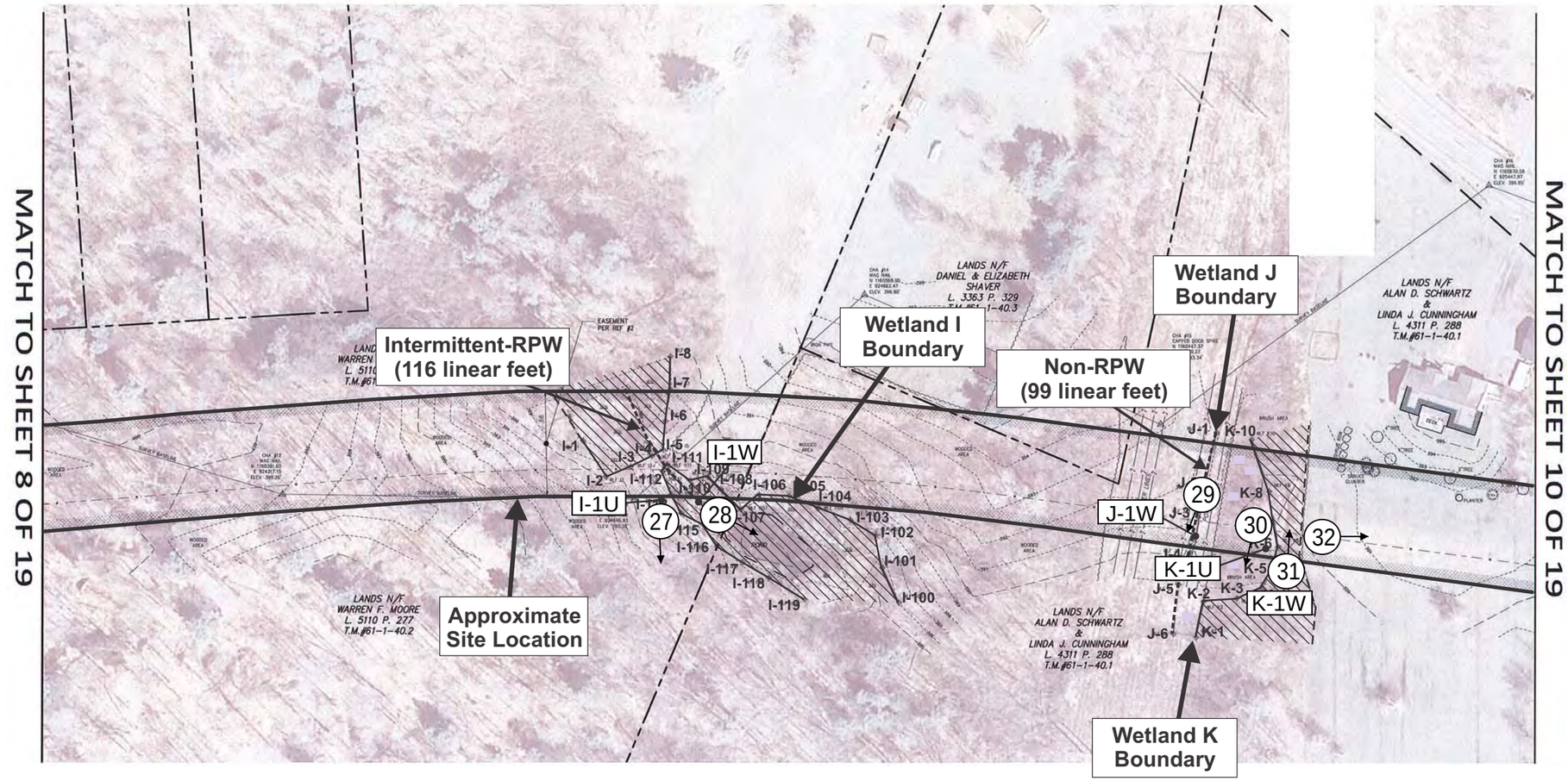
Base Map Provided by CHA Companies

Figure 10-8.

Wetland Survey Map with Plot and Photograph Locations

Sheet 8 of 19

TES File: IDA-2033A\2033A-PlotPhoto8.cdr\6-25-2013



LEGEND

I-1W Sample Plot Location

27 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-9.

Wetland Survey Map with Plot and Photograph Locations

Sheet 9 of 19

TES File: IDA-2033A\2033A-PlotPhoto9.cdr\6-26-2013

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

33 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-10.

Wetland Survey Map with Plot and Photograph Locations

Sheet 10 of 19

TES File: IDA-2033A\2033A-PlotPhoto10.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT (REBAR / IRON PIN / IRON PIPE)
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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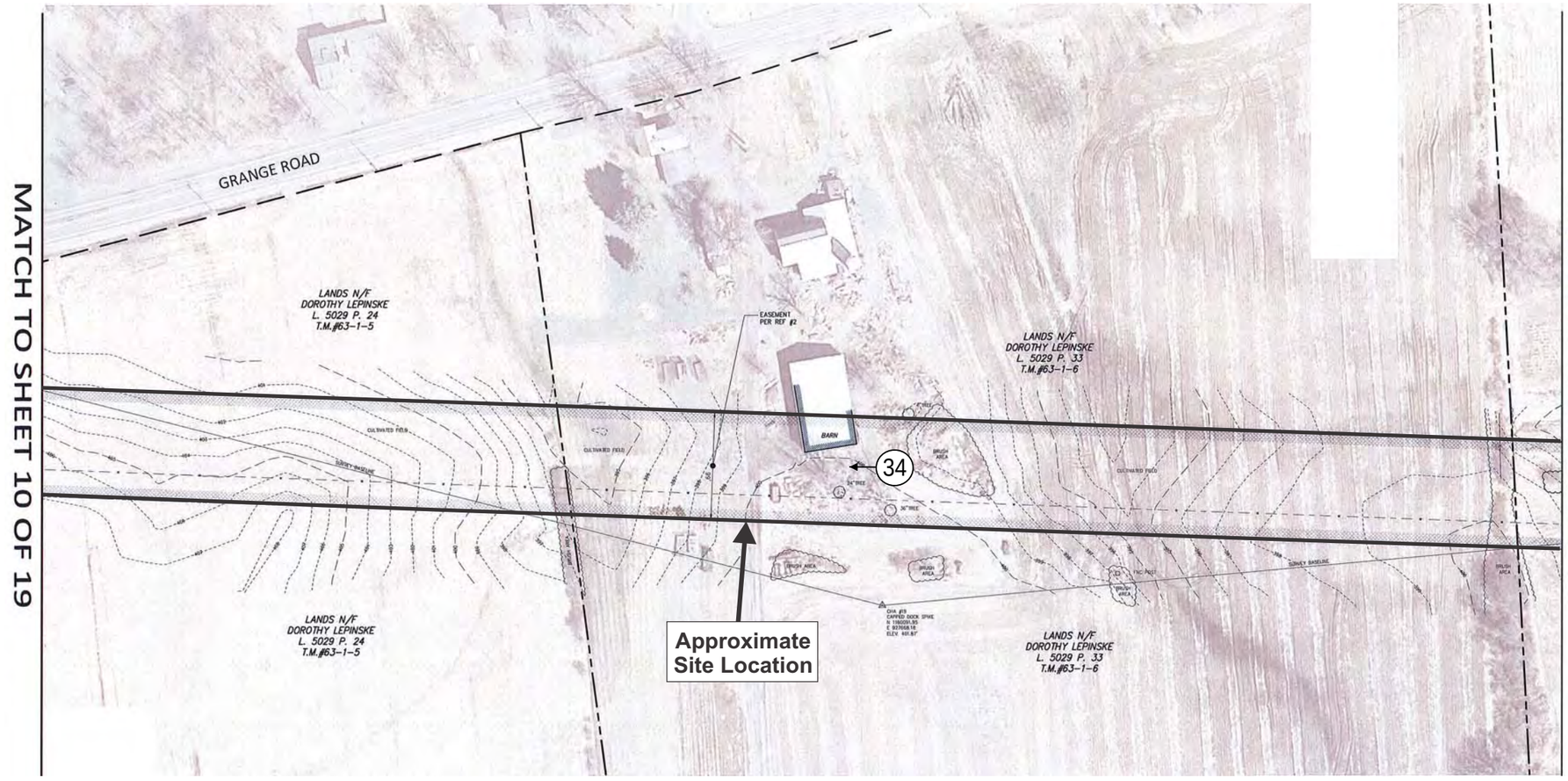
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

34 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-11.

Wetland Survey Map with Plot and Photograph Locations

Sheet 11 of 19

TES File: IDA-2033A\2033A-PlotPhoto11.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

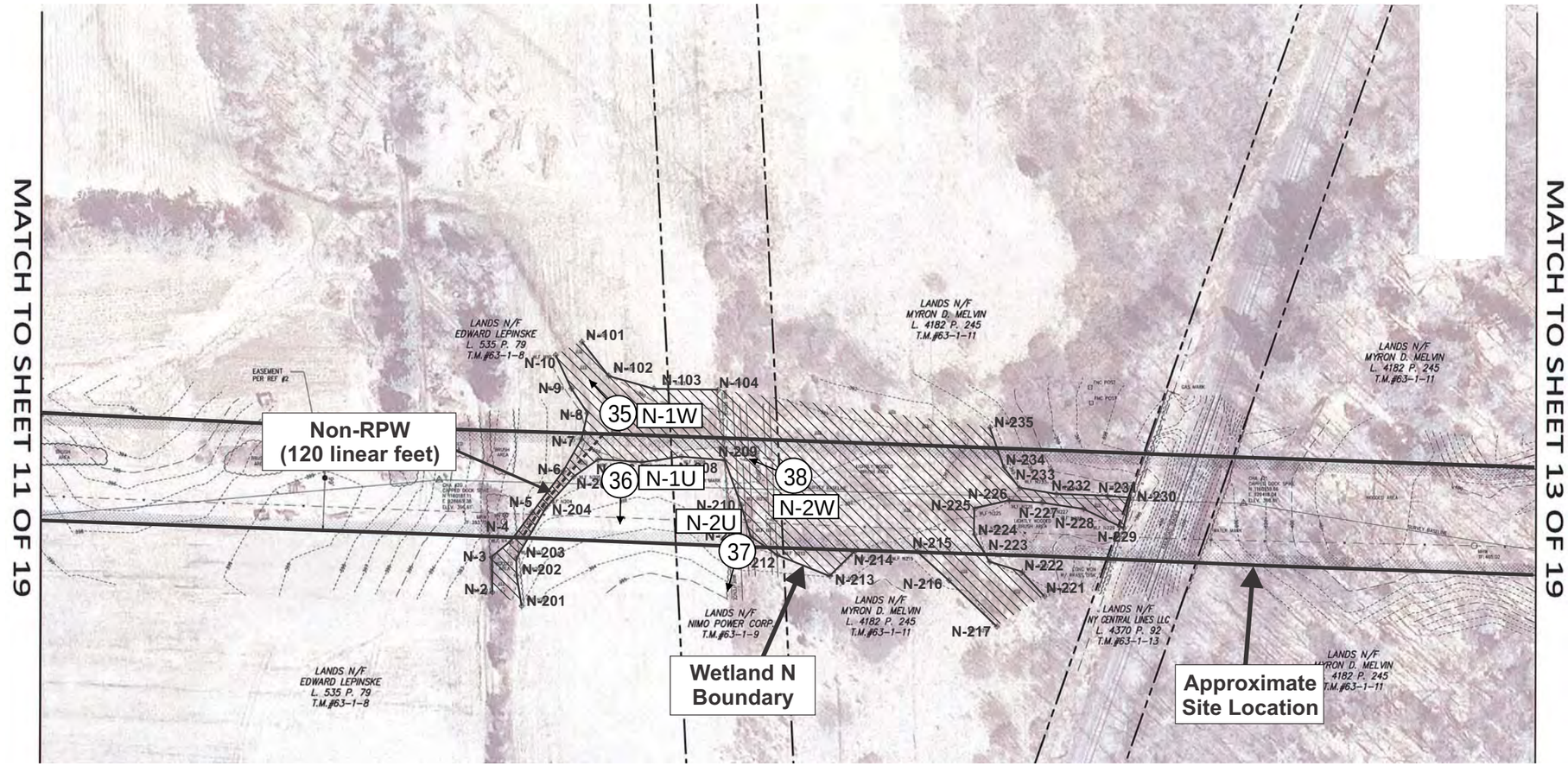
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

N-1W Sample Plot Location

35 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

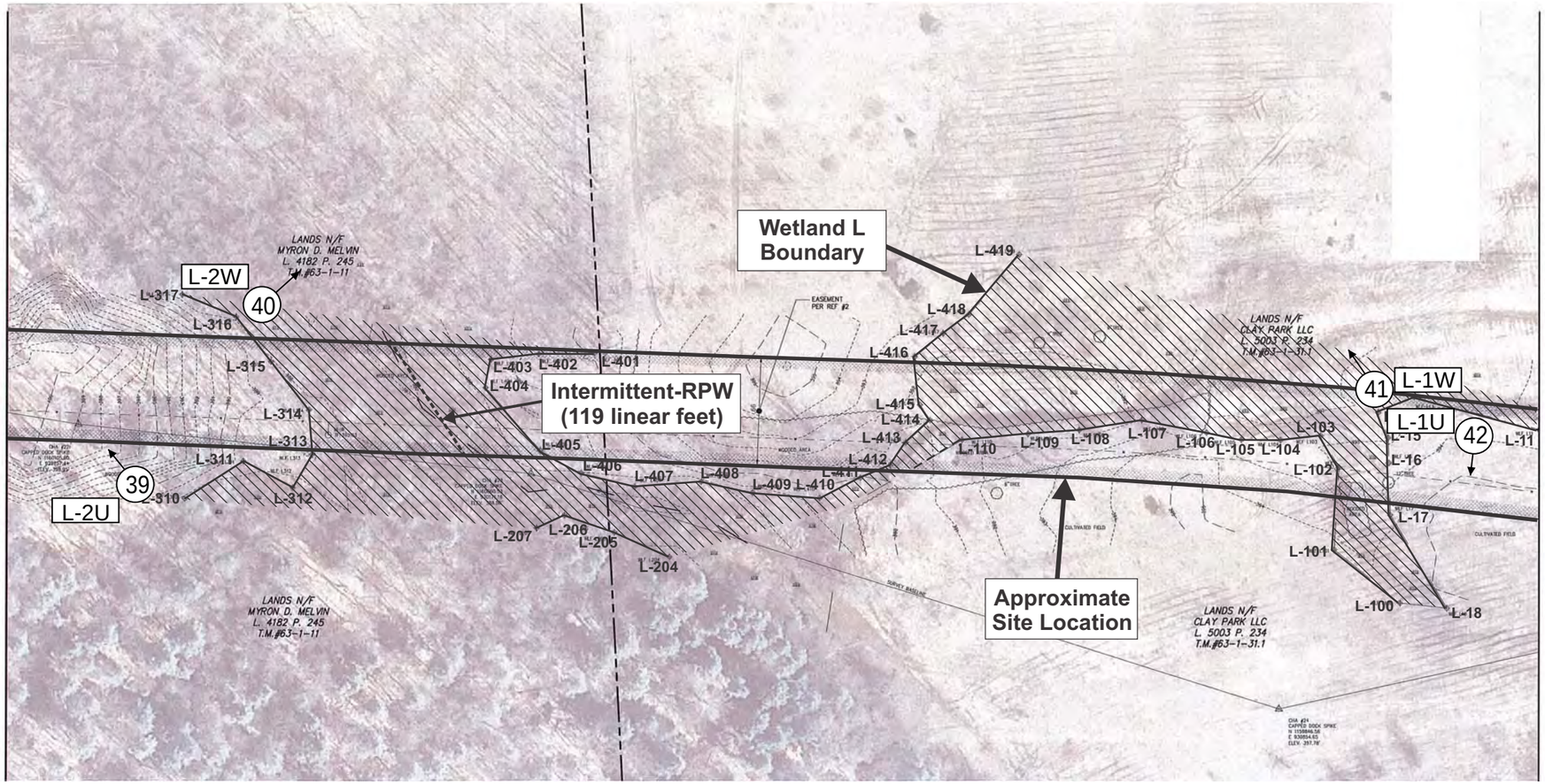
1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

Figure 10-12.

Wetland Survey Map with Plot and Photograph Locations

Sheet 12 of 19

TES File: IDA-2033A\2033A-PlotPhoto12.cdr\6-26-2013



LEGEND

L-1W Sample Plot Location

40 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-13.

Wetland Survey Map with Plot and Photograph Locations

Sheet 13 of 19

TES File: IDA-2033A\2033A-PlotPhoto13.cdr\6-26-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
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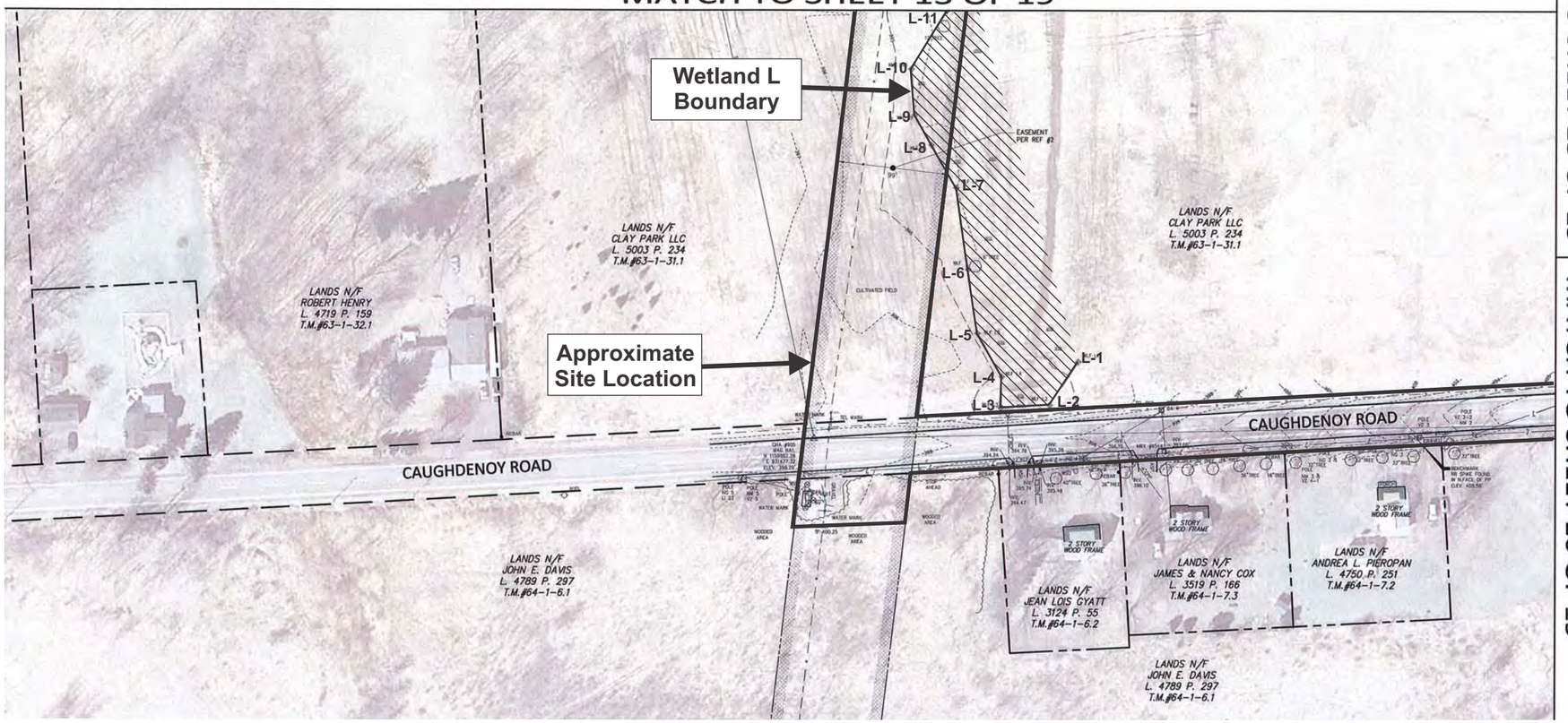
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

MATCH TO SHEET 13 OF 19



MATCH TO SHEET 15 OF 19 | MATCH TO SHEET 16 OF 19

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

* No Plot or Photo Locations are Included on this Figure

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

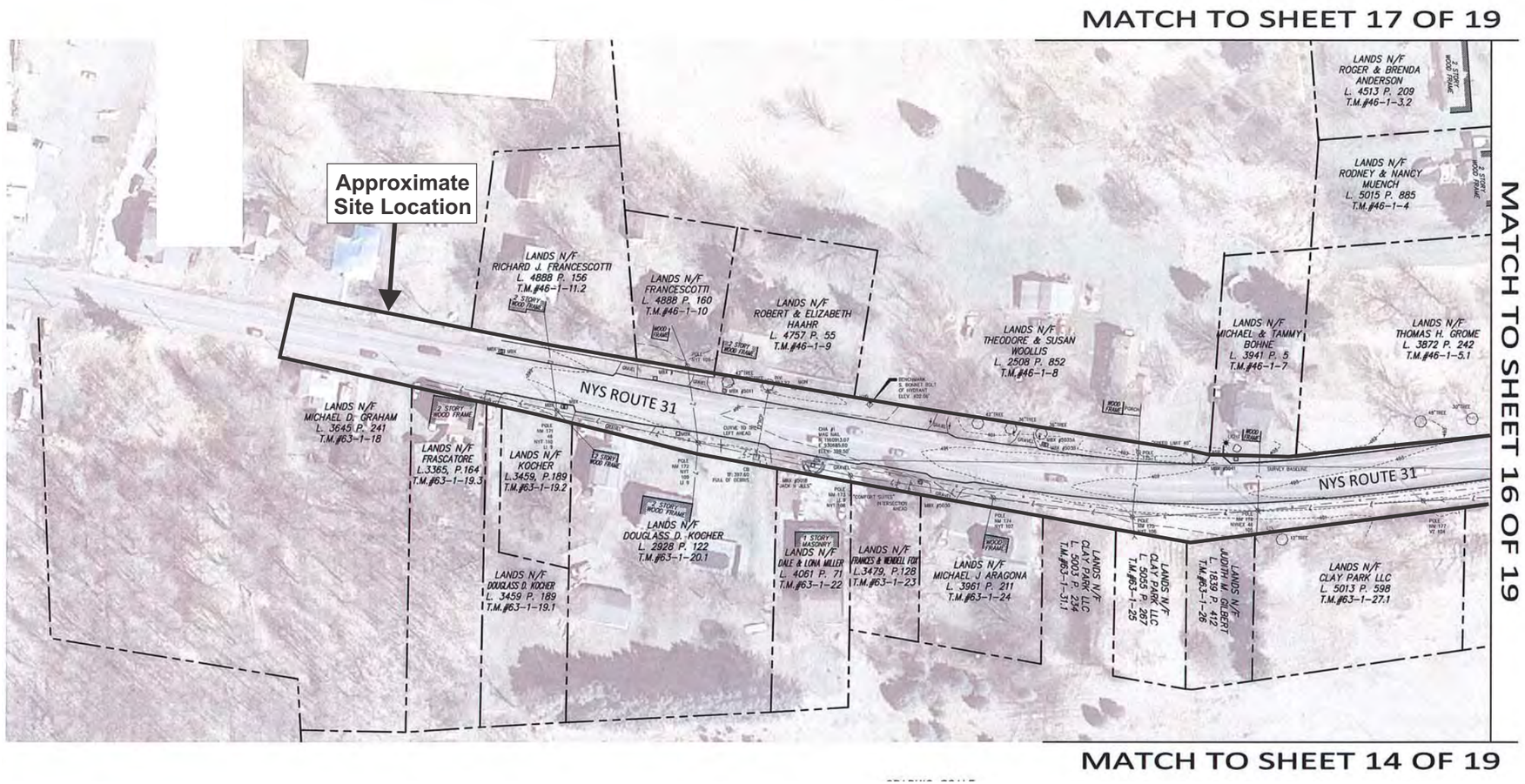
Base Map Provided by CHA Companies

Figure 10-14.

Wetland Survey Map with Plot and Photograph Locations

Sheet 14 of 19

TES File: IDA-2033A\2033A-PlotPhoto14.cdr\6-25-2013



LEGEND

* No Plot or Photo Locations are Included on this Figure

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-15.

Wetland Survey Map with Plot and Photograph Locations

Sheet 15 of 19

TES File: IDA-2033A\2033A-PlotPhoto15.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

(IRON PIN, REBAR, IRON PIPE)

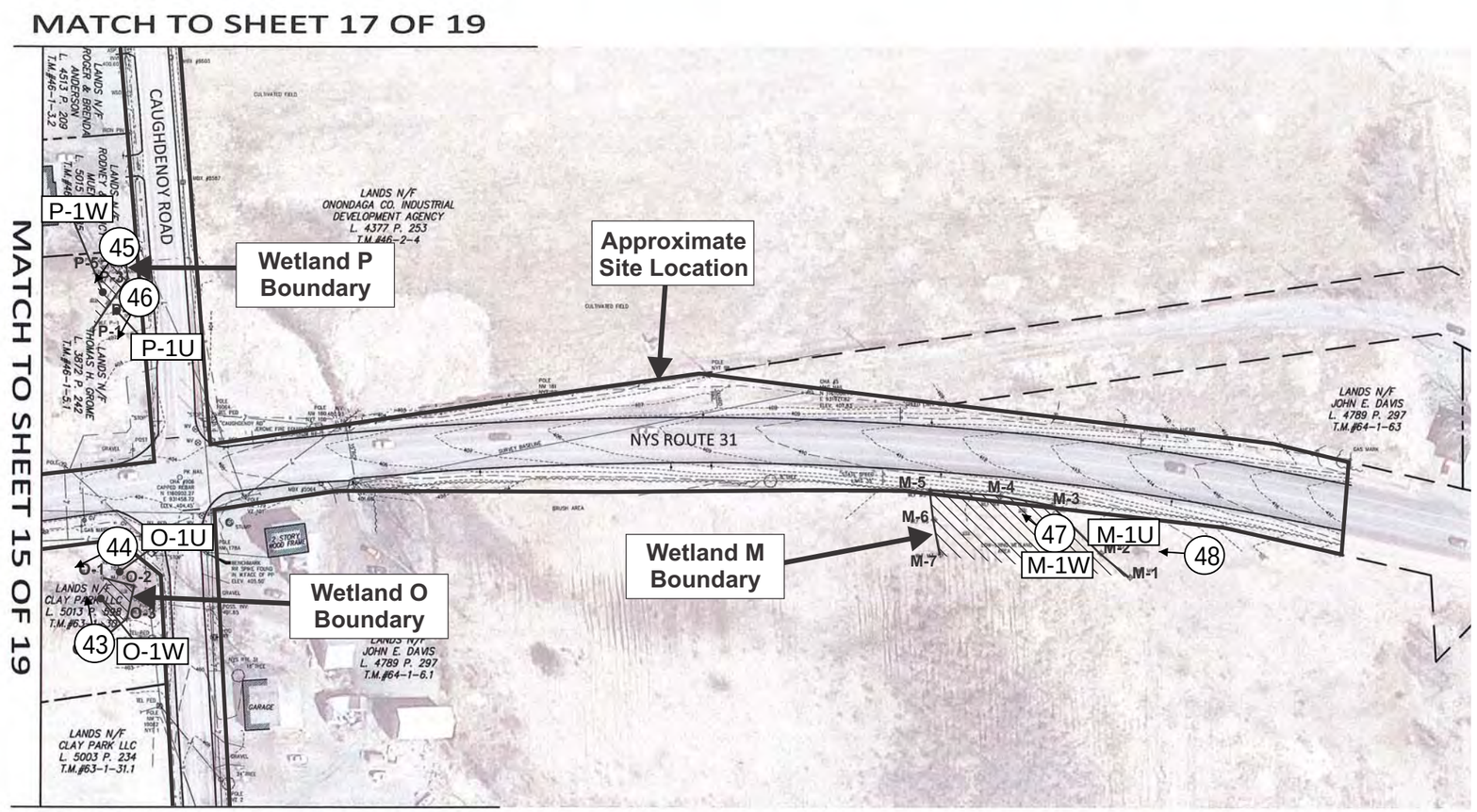
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND

P-1W Sample Plot Location

43 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-16.

Wetland Survey Map with Plot and Photograph Locations

Sheet 16 of 19

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT (REBAR, IRON PIN, IRON PIPE)

- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
- OVERHEAD UTILITY LINE W/POWER POLE
- ELECTRIC LINE W/ELECTRIC MANHOLE
- WATER LINE W/VALVE
- GAS LINE W/VALVE
- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

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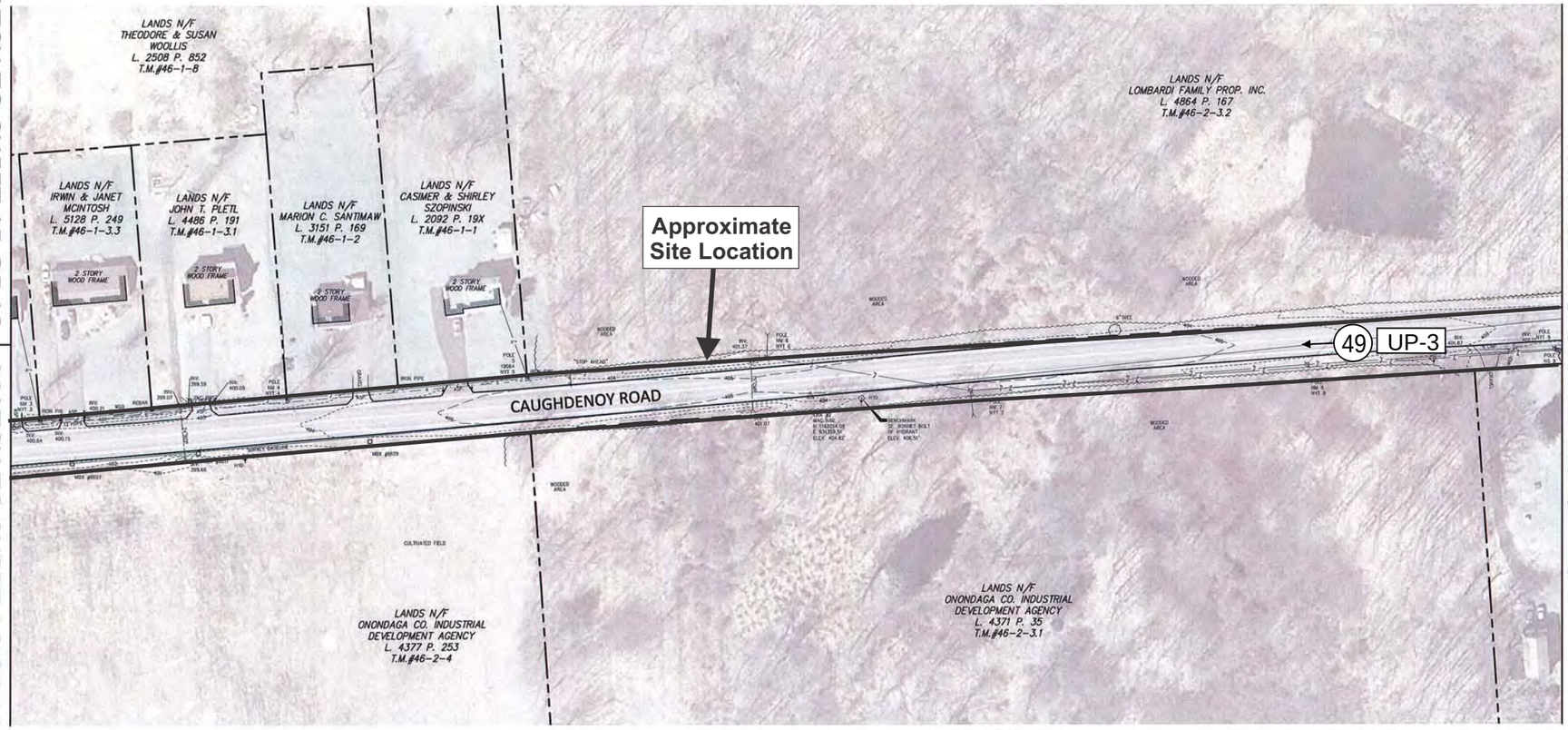
TES File: IDA-2033A\2033A-PlotPhoto16.cdr\6-25-2013

MATCH TO SHEET 15 OF 19 | MATCH TO SHEET 16 OF 19



MATCH TO SHEET 18 OF 19

LEGEND

UP-3 Sample Plot Location

49 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-17.

Wetland Survey Map with Plot and Photograph Locations

Sheet 17 of 19

TES File: IDA-2033A\2033A-PlotPhoto17.cdr\6-25-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
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- HYDRANT
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- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

- PARCEL BOUNDARY LINE
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- WATER LINE W/VALVE
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- TELEPHONE LINE W/SIGNAL BOX
- CONTOUR LINE

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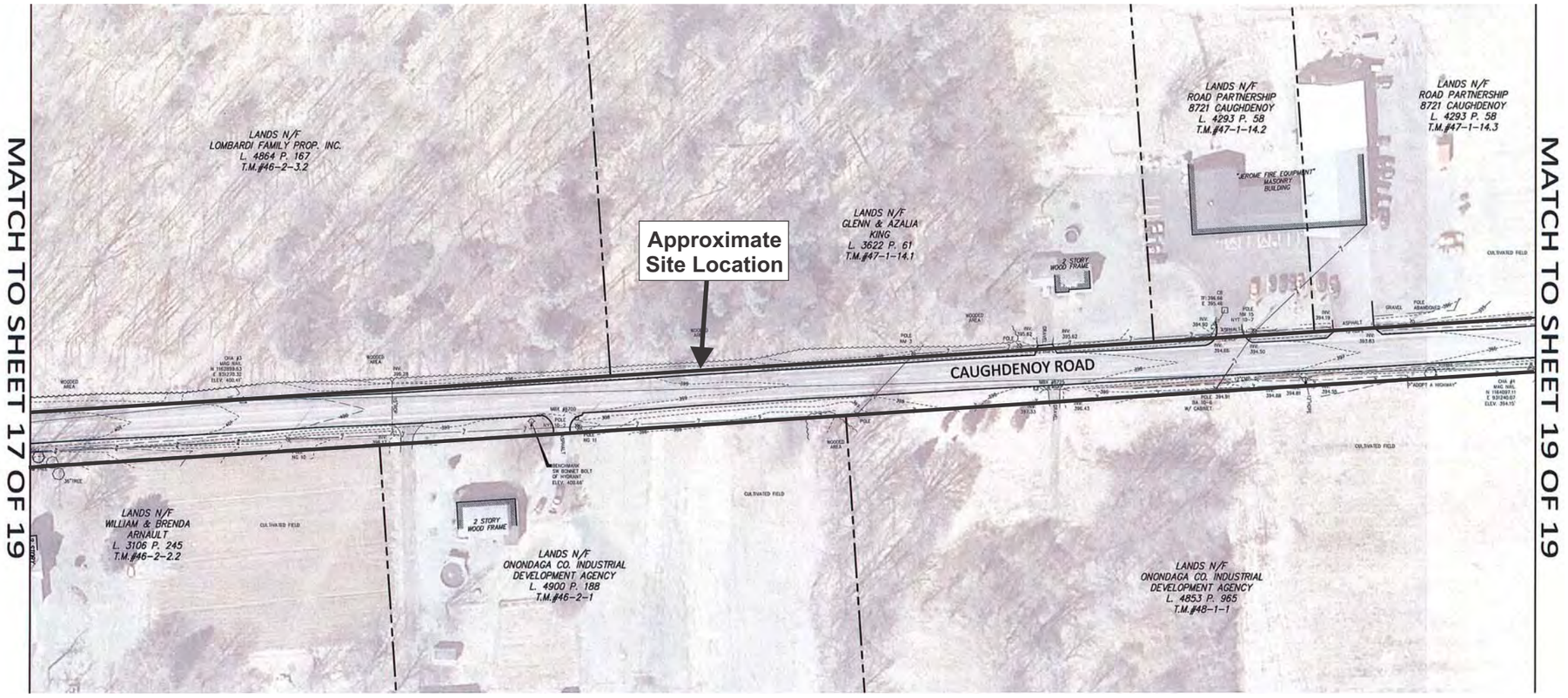

LEGEND:

- SIGN
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- CONIFEROUS TREE
- SHRUB
- LIGHT POLE
- BOLLARD
- HYDRANT
- WATER MANHOLE
- GAS SHUT OFF VALVE
- BORING W/ DESIGNATOR
- PROPERTY MONUMENTATION FOUND
- SURVEY CONTROL POINT

- PARCEL BOUNDARY LINE
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LEGEND

* No Plot or Photo Locations are Included on this Figure

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

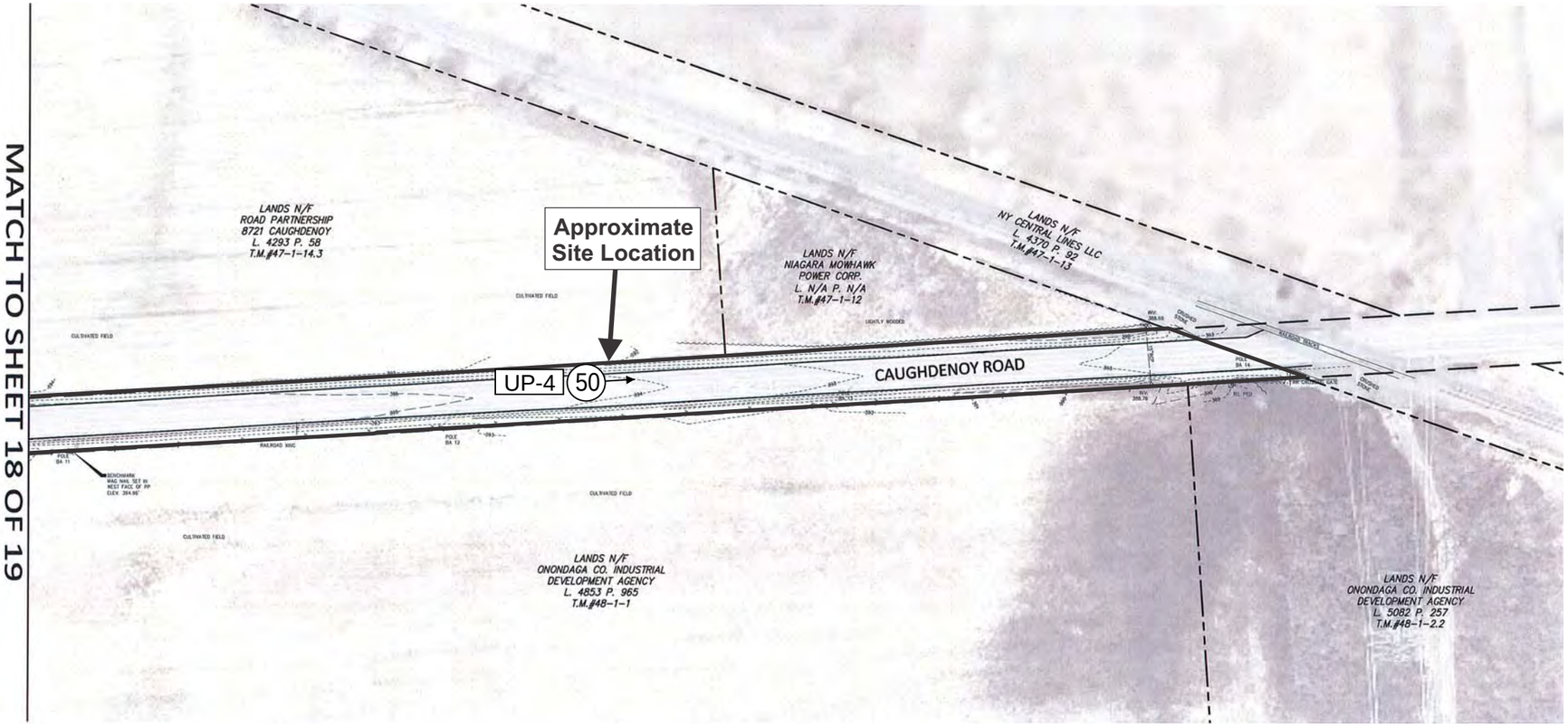
Figure 10-18.

Wetland Survey Map with Plot and Photograph Locations

Sheet 18 of 19

TES File: IDA-2033A\2033A-PlotPhoto18.cdr\6-25-2013

MATCH TO SHEET 18 OF 19



LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT
REBAR
IRON PIN
IRON PIPE

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
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LEGEND

UP-4 Sample Plot Location

50 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-19.

Wetland Survey Map with Plot and Photograph Locations

Sheet 19 of 19

TES File: IDA-2033A\2033A-PlotPhoto19.cdr\6-25-2013

APPENDIX A – Photographs

Photo 1.

Photo 2.

Photo 3.

Photo 4.

Photo 5.

Photo 6.

Photo 7.

Photo 8.

Photo 9.

Photo 10.

Photo 11.

Photo 12.

Photo 13.

Photo 14.

Photo 15.

Photo 16.

Photo 17.

Photo 18.

Photo 19.

Photo 20.

Photo 21.

Photo 22.

Photo 23.

Photo 24.

Photo 25.

Photo 26.

Photo 27.

Photo 28.

Photo 29.

Photo 30.

Photo 31.

Photo 32.

Photo 33.

Photo 34.

Photo 35.

Photo 36.

Photo 37.

Photo 38.

Photo 39.

Photo 40.

Photo 41.

Photo 42.

Photo 43.

Photo 44.

Photo 45.

Photo 46.

Photo 47.

Photo 48.

Photo 49.

Photo 50.

APPENDIX B – Field Data Sheets

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

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, et

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

Remarks:
Flag # A-4, Photo # 5NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Plantago major	55	☑ 43.3%	FACU
2. Trifolium pratense	45	☑ 35.4%	FACU
3. Taraxacum officinale	15	☐ 11.8%	FACU
4. Lolium perenne	2	☐ 1.6%	FACU
5. Phleum pratense	5	☐ 3.9%	FACU
6. Galium mollugo	5	☐ 3.9%	UPL
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	127	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= 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: 2 (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	122	**x 4 =**	488
UPL species	5	**x 5 =**	25
Column Totals:	127 **(A)**		513 **(B)**

Prevalence Index = B/A = 4.039

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/3	100%						Loam	
12-20	10YR	5/6	98%	10YR	5/4	2%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** EW

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, et

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

Remarks:
Flag # A-4, Photo # 4SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Acorus americanus	60	☑ 66.7%	OBL
2. Onoclea sensibilis	5	☐ 5.6%	FACW
3. Carex sp.	15	☐ 16.7%	FAC
4. Mentha spicata	5	☐ 5.6%	FACW
5. Bidens sp.	5	☐ 5.6%	FACW
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	90	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= 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	60	**x 1 =**	60
FACW species	15	**x 2 =**	30
FAC species	15	**x 3 =**	45
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	90	**(A)**	135 **(B)**

Prevalence Index = B/A = 1.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-12+	10YR	4/1	95%	10YR	4/4	5%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** EW

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, et

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

Remarks:
Flag # A-4, Photo # 4SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Acorus americanus	60	☑ 66.7%	OBL
2. Onoclea sensibilis	5	☐ 5.6%	FACW
3. Carex sp.	15	☐ 16.7%	FAC
4. Mentha spicata	5	☐ 5.6%	FACW
5. Bidens sp.	5	☐ 5.6%	FACW
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	90	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= 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	60	**x 1 =**	60
FACW species	15	**x 2 =**	30
FAC species	15	**x 3 =**	45
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	90	**(A)**	135 **(B)**

Prevalence Index = B/A = 1.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-12+	10YR	4/1	95%	10YR	4/4	5%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** B-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag # B-3, Photo # 9SE

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Medicago sativa	95	☑ 86.4%	UPL
2. Trifolium repens	10	☐ 9.1%	FACU
3. Taraxacum officinale	5	☐ 4.5%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	110	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	15	**x 4 =**	60
UPL species	95	**x 5 =**	475
Column Totals:	110	**(A)**	535 **(B)**

Prevalence Index = B/A = 4.864

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: B-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR	4/3	100%						Silt Loam	
14-24	10YR	4/4	95%	10YR	5/3	5%	D	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** B-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** WM/Ditch

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, et

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

Remarks:
Flag # B-3, Photo # 8W

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Carex sp.	90	☑	90.9%	FAC
2. plantago major	2	☐	2.0%	FACU
3. Trifolium repens	2	☐	2.0%	FACU
4. Rumex crispus	5	☐	5.1%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	99		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	**x 1 =**	0	
FACW species	0	**x 2 =**	0	
FAC species	95	**x 3 =**	285	
FACU species	4	**x 4 =**	16	
UPL species	0	**x 5 =**	0	
Column Totals:	99	**(A)**	301	**(B)**

Prevalence Index = B/A = 3.040

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: B-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/2	90%	10YR	4/4	10%	C	M	Silt Loam	
12-22	10YR	4/3	90%	10YR	6/2	10%	D	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** C-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag # C-103, Photo # 13SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Daucus carota	20	☐ 14.1%	UPL
2. Lotus corniculatus	2	☐ 1.4%	FACU
3. Achillea millefolium	10	☐ 7.0%	FACU
4. Trifolium pratense	40	☑ 28.2%	FACU
5. Plantago major	10	☐ 7.0%	FACU
6. Medicago sativa	25	☐ 17.6%	UPL
7. Carex sp.	35	☑ 24.6%	FAC
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	142	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 2 =**	0	
FAC species	35	**x 3 =**	105	
FACU species	62	**x 4 =**	248	
UPL species	45	**x 5 =**	225	
Column Totals:	142	**(A)**	578	**(B)**

Prevalence Index = B/A = 4.070

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: C-1U

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type [1]	Redox Features Loc [2]	Texture	Remarks
0-14	10YR 4/4	100%					Loam	Rocky below

[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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** C-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** EW

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, et

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

Remarks:
Flag # C-3, Photo # 12S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Populus deltoides	10	☑ 66.7%	FAC
2. Fraxinus pennsylvanica	5	☑ 33.3%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Phragmites australis	100	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	105	**x 2 =**	210
FAC species	10	**x 3 =**	30
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	115	**(A)**	240 **(B)**

Prevalence Index = B/A = 2.087

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: C-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	3/2	95%	7.5YR	4/6	5%			Silt Loam	
12-16+	10YR	4/1	90%	7.5YR	4/4	10%			Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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):	3
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

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, et

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

Remarks:
Flag # D-106, Photo # 17S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Symphyotrichum novae-angliae	20	☐	14.3%	FACW
2. Daucus carota	10	☐	7.1%	UPL
3. Solidago canadensis	30	☑	21.4%	FACU
4. Galium mollugo	5	☐	3.6%	UPL
5. Achillea millefolium	5	☐	3.6%	FACU
6. Plantago major	15	☐	10.7%	FACU
7. Taraxacum officinale	10	☐	7.1%	FACU
8. Carex sp.	45	☑	32.1%	FAC
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= 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	20	**x 2 =**	40	
FAC species	45	**x 3 =**	135	
FACU species	60	**x 4 =**	240	
UPL species	15	**x 5 =**	75	
Column Totals:	140	**(A)**	490	**(B)**

Prevalence Index = B/A = 3.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	4/3	100%						Silty Clay Loam	
10-20+	10YR	4/4	100%						Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** WM

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, et

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

Remarks:
Flag # D-2, Photo # 16NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Phalaris arundinacea	90	☑ 85.7%	FACW
2. Carex sp.	10	☐ 9.5%	FAC
3. Ranunculus sp.	5	☐ 4.8%	FAC
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	105	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= Total Cover**	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	**x 1 =**	0	
FACW species	90	**x 2 =**	180	
FAC species	15	**x 3 =**	45	
FACU species	0	**x 4 =**	0	
UPL species	0	**x 5 =**	0	
Column Totals:	105	**(A)**	225	**(B)**

Prevalence Index = B/A = 2.143

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	3/2	80%	10YR	4/6	20%			Silty Clay Loam	
10-16+	10YR	6/2	80%	10YR	4/6	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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): 1

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

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, et

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

Remarks:
Flag # D-210, Photo # 21SE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Solidago canadensis	85	☑ 68.5%	FACU
2. Symphyotrichum novae-angliae	10	☐ 8.1%	FACW
3. Toxicodendron radicans	5	☐ 4.0%	FAC
4. Asclepias syriaca	15	☐ 12.1%	UPL
5. Vitis riparia	2	☐ 1.6%	FAC
6. Rubus idaeus	5	☐ 4.0%	FACU
7. Achillea millefolium	2	☐ 1.6%	FACU
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	124	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	10	**x 2 =**	20
FAC species	7	**x 3 =**	21
FACU species	92	**x 4 =**	368
UPL species	15	**x 5 =**	75
Column Totals:	124	**(A)**	484 **(B)**

Prevalence Index = B/A = 3.903

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-2U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-13	10YR	4/3	100%						Silt Loam	
13-20	10YR	5/3	100%						Silt Loam	Rocky below

[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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Toeslope

Soil Map Unit Name: Wayland silt loam **Cover Type:** DFW

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, et

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

Remarks:
Flag # D-210, Photo # 22

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	85	☑ 85.0%	FACW
2. Fraxinus pennsylvanica	15	☐ 15.0%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Rhamnus cathartica	10	☑ 37.0%	FAC
2. Cornus amomum	15	☑ 55.6%	FACW
3. Salix sp.	2	☐ 7.4%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	27	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Onoclea sensibilis	35	☑ 63.6%	FACW
2. Iris versicolor	5	☐ 9.1%	OBL
3. Lysimachia nummularia	15	☑ 27.3%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	55	= Total Cover	
Woody Vine Stratum (Plot size: 30' Radius)			
1. Vitis riparia	15	☐ 100.0%	FAC
2.	0	☐ 0.0%	
	15	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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	167	**x 2 =**	334
FAC species	25	**x 3 =**	75
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	197	**(A)**	414 **(B)**

Prevalence Index = B/A = 2.102

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-2W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	3/2	100%						Loam	
10-20	10YR	5/1	90%	10YR	4/4	10%	C	M	Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** E-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** DFW

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, et

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

Remarks:
Flag # E-9, Photo # 28S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus pennsylvanica	40	☑ 80.0%	FACW
2. Ulmus americana	5	☐ 10.0%	FACW
3. Populus tremuloides	5	☐ 10.0%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	20	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Erigeron annuus	30	☑ 30.9%	FACU
2. Lythrum salicaria	15	☐ 15.5%	OBL
3. Epilobium hirsutum	50	☑ 51.5%	FACW
4. Impatiens capensis	2	☐ 2.1%	FACW
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	97	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	15	**x 1 =**	15
FACW species	117	**x 2 =**	234
FAC species	0	**x 3 =**	0
FACU species	35	**x 4 =**	140
UPL species	0	**x 5 =**	0
Column Totals:	167	**(A)**	389 **(B)**

Prevalence Index = B/A = 2.329

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: E-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-3	10YR	3/2	100%						Loam	Organic material
3-18+	10YR	4/2	95%	10YR	3/3	5%	C	M	Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** F-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** EW

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, et

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

Remarks:
Flag #F-5, Photo # 33NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	10	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Typha angustifolia	60	☑ 52.2%	OBL
2. Eutrochium maculatum	10	☐ 8.7%	OBL
3. Symphyotrichum novi-belgii	30	☑ 26.1%	FACW
4. Onoclea sensibilis	15	☐ 13.0%	FACW
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	115	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= Total Cover**	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	70	**x 1 =**	70
FACW species	55	**x 2 =**	110
FAC species	0	**x 3 =**	0
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	125 **(A)**		180 **(B)**

Prevalence Index = B/A = 1.440

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: F-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	3/2	100%						Silt Loam	
10-14	10YR	4/2	85%	10YR	5/6	15%			Clay Loam	
14-16+	10YR	5/2	60%	10YR	5/6	40%			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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 2

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** G-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

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, et

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

Remarks:
Flag # G-4, Photo # 36NE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus pennsylvanica	15	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Fraxinus pennsylvanica	5	☑ 33.3%	FACW
2. Salix sp.	10	☑ 66.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Ulmus americana	5	☐ 4.3%	FACW
2. Lysimachia nummularia	35	☑ 30.4%	FACW
3. Eutrochium maculatum	5	☐ 4.3%	OBL
4. Fraxinus pennsylvanica	25	☑ 21.7%	FACW
5. Impatiens capensis	5	☐ 4.3%	FACW
6. Aster sp.	10	☐ 8.7%	FAC
7. Lythrum salicaria	5	☐ 4.3%	OBL
8. Aster sp.	25	☑ 21.7%	FAC
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	115	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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	10	**x 1 =**	10
FACW species	100	**x 2 =**	200
FAC species	35	**x 3 =**	105
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	145 **(A)**		315 **(B)**

Prevalence Index = B/A = 2.172

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: G-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-3	10YR	3/2	100%						Silt Loam	
3-16+	10YR	4/2	95%	10YR	5/2	5%	D	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** H-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

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, et

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

Remarks:
Flag # H-3, Photo # 38-NE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus pennsylvanica	10	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	10	☑ 33.3%	FACW
2. Fraxinus pennsylvanica	20	☑ 66.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	30	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Epilobium hirsutum	35	☑ 27.6%	FACW
2. Toxicodendron radicans	15	☐ 11.8%	FAC
3. Cornus amomum	15	☐ 11.8%	FACW
4. Fraxinus pennsylvanica	15	☐ 11.8%	FACW
5. Aster sp.	45	☑ 35.4%	FAC
6. Fragaria virginiana	2	☐ 1.6%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	127	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 1 =**	0
FACW species	105	**x 2 =**	210
FAC species	60	**x 3 =**	180
FACU species	2	**x 4 =**	8
UPL species	0	**x 5 =**	0
Column Totals:	167	**(A)**	398 **(B)**

Prevalence Index = B/A = 2.383

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: H-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-8	10YR	3/2	95%	10YR	4/4	5%	C	M	Silt Loam	
8-18+	10YR	4/2	95%	10YR	4/4	5%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ◉ No ○ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** I-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** DFU

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, et

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

Remarks:
Flag # I-114, Photo # 49S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Betula alleghaniensis	85	☑ 50.0%	FAC
2. Carya ovata	15	☐ 8.8%	FACU
3. Carya cordiformis	25	☑ 14.7%	FAC
4. Acer rubrum	20	☐ 11.8%	FAC
5. Tsuga canadensis	25	☑ 14.7%	FACU
	170	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Quercus rubra	10	☑ 66.7%	FACU
2. Ulmus americana	5	☑ 33.3%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Carya cordiformis	10	☑ 22.2%	FAC
2. Acer rubrum	10	☑ 22.2%	FAC
3. Prunus serotina	5	☐ 11.1%	FACU
4. Dryopteris intermedia	5	☐ 11.1%	FAC
5. Acer saccharum	5	☐ 11.1%	FACU
6. Tilia americana	10	☑ 22.2%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	45	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 8 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 62.5% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	**x 1 =**	0	
FACW species	5	**x 2 =**	10	
FAC species	155	**x 3 =**	465	
FACU species	70	**x 4 =**	280	
UPL species	0	**x 5 =**	0	
Column Totals:	230	**(A)**	755	**(B)**

Prevalence Index = B/A = 3.283

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: I-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	4/3	100%						Sandy Loam	
11-18+	10YR	5/6	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** I-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Fluvaquents, frequently flooded **Cover Type:** SSW

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, et

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

Remarks:
Flag # I-114, Photo # 47SE

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1. Populus deltoides	10	☑ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	40	☑ 61.5%	FACW
2. Salix sp.	20	☑ 30.8%	FACW
3. Tilia americana	5	☐ 7.7%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	65	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Cornus amomum	10	☑ 25.0%	FACW
2. Onoclea sensibilis	10	☑ 25.0%	FACW
3. Toxicodendron radicans	15	☑ 37.5%	FAC
4. Acer rubrum	5	☐ 12.5%	FAC
5. Boehmeria cylindrica	0	☐ 0.0%	OBL
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	40	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= Total Cover**	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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	80	**x 2 =**	160
FAC species	30	**x 3 =**	90
FACU species	5	**x 4 =**	20
UPL species	0	**x 5 =**	0
Column Totals:	115	**(A)**	270 **(B)**

Prevalence Index = B/A = 2.348

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: I-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	3/2	85%	7.5YR	4/6	15%			Silty Clay Loam	
10--16+	10YR	4/1	85%	7.5YR	4/6	15%			Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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):	3
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** J-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Ditch

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW/Ditch

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, et

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

Remarks:
Flag # J-3, Photo # 50S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Salix sp.	35	☑ 58.3%	FACW
2. Cornus amomum	25	☑ 41.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	60	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Poa sp.	65	☑ 60.2%	FAC
2. Salix sp.	15	☐ 13.9%	FACW
3. Viburnum dentatum	5	☐ 4.6%	FAC
4. Symphyotrichum novae-angliae	10	☐ 9.3%	FACW
5. Fragaria virginiana	2	☐ 1.9%	FACU
6. Lonicera sp.	2	☐ 1.9%	FACU
7. Lythrum salicaria	5	☐ 4.6%	OBL
8. Galium palustre	2	☐ 1.9%	OBL
9. Equisetum arvense	2	☐ 1.9%	FAC
10.	0	☐ 0.0%	
	108	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	7	**x 1 =**	7
FACW species	85	**x 2 =**	170
FAC species	72	**x 3 =**	216
FACU species	4	**x 4 =**	16
UPL species	0	**x 5 =**	0
Column Totals:	168	**(A)**	409 **(B)**

Prevalence Index = B/A = 2.435

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: J-1W

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0-5	10YR 3/2	95%	10YR 4/4	5%			Silty Clay Loam	
5-12+	10YR 5/2	60%	10YR 5/6	40%			Silty 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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): 1

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** K-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSU

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, et

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

Remarks:
Flag # K-4, Photo # 51S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Solidago canadensis	45	☑ 22.0%	FACU
2. Carex sp.	25	☐ 12.2%	FAC
3. Aster sp.	25	☐ 12.2%	FAC
4. Lonicera sp.	10	☐ 4.9%	FACU
5. Achillea millefolium	30	☑ 14.6%	FACU
6. Fragaria virginiana	15	☐ 7.3%	FACU
7. Galium mollugo	10	☐ 4.9%	UPL
8. Agrostis sp.	45	☑ 22.0%	FAC
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	205	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	**x 1 =**	0	
FACW species	0	**x 2 =**	0	
FAC species	95	**x 3 =**	285	
FACU species	100	**x 4 =**	400	
UPL species	10	**x 5 =**	50	
Column Totals:	205	**(A)**	735	**(B)**

Prevalence Index = B/A = 3.585

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: K-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-18+	10YR	5/3	90%	10YR	5/6	10%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** K-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

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, et

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

Remarks:
Flag # K-4, Photo # 54N

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus pennsylvanica	15	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	45	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	45	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Impatiens capensis	70	☑ 48.3%	FACW
2. Poa sp.	30	☑ 20.7%	FAC
3. Epilobium hirsutum	40	☑ 27.6%	FACW
4. Solanum dulcamara	5	☐ 3.4%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	145	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 1 =**	0	
FACW species	170	**x 2 =**	340	
FAC species	35	**x 3 =**	105	
FACU species	0	**x 4 =**	0	
UPL species	0	**x 5 =**	0	
Column Totals:	205	**(A)**	445	**(B)**

Prevalence Index = B/A = 2.171

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: K-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	3/2	100%						Silty Clay Loam	
11-18+	10YR	4/2	90%	10YR	4/4	10%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, 0 to 2 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag # L-13, Photo # 71S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Picris hieracioides	40	☑	17.8%	UPL
2. Solidago canadensis	55	☑	24.4%	FACU
3. Daucus carota	45	☑	20.0%	UPL
4. Fragaria virginiana	25	☐	11.1%	FACU
5. Taraxacum officinale	30	☐	13.3%	FACU
6. Melilotus alba	5	☐	2.2%	FACU
7. Galium mollugo	10	☐	4.4%	UPL
8. Symphyotrichum novae-angliae	15	☐	6.7%	FACW
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	225		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= 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: 3 (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	15	**x 2 =**	30	
FAC species	0	**x 3 =**	0	
FACU species	115	**x 4 =**	460	
UPL species	95	**x 5 =**	475	
Column Totals:	225	**(A)**	965	**(B)**

Prevalence Index = B/A = 4.289

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR	4/3	98%	10YR	5/4	2%	C	M	Silt Loam	
14-22	10YR	6/6	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, 0 to 2 percent slopes **Cover Type:** WM

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, et

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

Remarks:
Flag # L-13, Photo # 70NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Epilobium hirsutum	15	☐ 7.1%	FACW
2. Phragmites australis	65	☑ 31.0%	FACW
3. Eutrochium maculatum	30	☑ 14.3%	OBL
4. Eupatorium perfoliatum	30	☑ 14.3%	FACW
5. Lythrum salicaria	35	☑ 16.7%	OBL
6. Populus deltoides	5	☐ 2.4%	FAC
7. Cornus amomum	20	☐ 9.5%	FACW
8. Symphyotrichum ericoides	10	☐ 4.8%	FACU
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	210	= Total Cover	
Woody Vine Stratum (Plot size: 30' Radius)			
1. Vitis riparia	15	☐ 100.0%	FAC
2.	0	☐ 0.0%	
	15	= 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	65	**x 1 =**	65
FACW species	130	**x 2 =**	260
FAC species	20	**x 3 =**	60
FACU species	10	**x 4 =**	40
UPL species	0	**x 5 =**	0
Column Totals:	225	**(A)**	425 **(B)**

Prevalence Index = B/A = 1.889

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/2	95%	10YR	4/4	5%	C	M	Silt Loam	
12-22	10YR	5/6	95%	10YR	4/6	5%	C	M	Fine 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, rolling **Cover Type:** DFU

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, et

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

Remarks:
Flag # L-304, Photo # 72NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Betula alleghaniensis	70	☑ 48.3%	FAC
2. Fraxinus americana	20	☑ 13.8%	FACU
3. Tilia americana	20	☑ 13.8%	FACU
4. Acer saccharum	15	☐ 10.3%	FACU
5. Acer rubrum	20	☑ 13.8%	FAC
	145	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Fagus grandifolia	15	☐ 18.3%	FACU
2. Fraxinus americana	25	☑ 30.5%	FACU
3. Prunus serotina	5	☐ 6.1%	FACU
4. Tilia americana	15	☐ 18.3%	FACU
5. Toxicodendron radicans	20	☑ 24.4%	FAC
6. Rhamnus cathartica	2	☐ 2.4%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	82	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	**x 1 =**	0	
FACW species	0	**x 2 =**	0	
FAC species	112	**x 3 =**	336	
FACU species	115	**x 4 =**	460	
UPL species	0	**x 5 =**	0	
Column Totals:	227	**(A)**	796	**(B)**

Prevalence Index = B/A = 3.507

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-2U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-2	10YR	3/3	100%						Silt Loam	
2-18	10YR	5/4	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, rolling **Cover Type:** DFW

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, et

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

Remarks:
Flag # L-318, Photo # 73NE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer rubrum	85	☑ 94.4%	FAC
2. Fraxinus pennsylvanica	5	☐ 5.6%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Acer rubrum	5	☑ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	5	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Acer rubrum	10	☐ 7.9%	FAC
2. Onoclea sensibilis	40	☑ 31.5%	FACW
3. Fraxinus americana	15	☐ 11.8%	FACU
4. Osmunda regalis	60	☑ 47.2%	OBL
5. Urtica dioica	2	☐ 1.6%	FAC
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	127	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	60	**x 1 =**	60
FACW species	45	**x 2 =**	90
FAC species	102	**x 3 =**	306
FACU species	15	**x 4 =**	60
UPL species	0	**x 5 =**	0
Column Totals:	222	**(A)**	516 **(B)**

Prevalence Index = B/A = 2.324

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-2W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-9	10YR	3/1	100%						Silt Loam	
9-18	10YR	5/2	90%	10YR	5/1	10%	D	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** M-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 0 to 2 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag #M-2, Photo # 78W

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Pinus sylvestris	20	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Solidago canadensis	85	☑ 58.6%	FACU
2. Daucus carota	15	☐ 10.3%	UPL
3. Galium mollugo	15	☐ 10.3%	UPL
4. Taraxacum officinale	10	☐ 6.9%	FACU
5. Picris hieracioides	20	☐ 13.8%	UPL
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	145	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 2 (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	95	**x 4 =**	380
UPL species	70	**x 5 =**	350
Column Totals:	165	**(A)**	730 **(B)**

Prevalence Index = B/A = 4.424

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: M-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR	4/3	100%						Silt Loam	
14-18	10YR	4/4	95%	10YR	5/6	5%	C	M	Silt Loam	Rocky below

[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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** M-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 0 to 2 percent slopes **Cover Type:** WM

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, et

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

Remarks:
Flag #M-2, Photo # 79NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Cornus alba	30	☑ 18.2%	FACW
2. Phragmites australis	80	☑ 48.5%	FACW
3. Symphyotrichum novae-angliae	5	☐ 3.0%	FACW
4. Viburnum dentatum	15	☐ 9.1%	FAC
5. Juncus tenuis	25	☐ 15.2%	FAC
6. Galium palustre	10	☐ 6.1%	OBL
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	165	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	10	**x 1 =**	10
FACW species	115	**x 2 =**	230
FAC species	40	**x 3 =**	120
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	165	**(A)**	360 **(B)**

Prevalence Index = B/A = 2.182

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: M-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	3/2	98%	10YR	4/4	2%			Sandy Loam	Little gravelly
11-16+	10YR	4/1	80%	10YR	5/4	20%			Fine Sandy Loam	With gravel

[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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Photo # 67S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Carex sp.	85	☑ 43.6%	FAC
2. Galium mollugo	30	☑ 15.4%	UPL
3. Asclepias syriaca	15	☐ 7.7%	UPL
4. Solidago canadensis	15	☐ 7.7%	FACU
5. Taraxacum officinale	10	☐ 5.1%	FACU
6. Trifolium pratense	15	☐ 7.7%	FACU
7. Daucus carota	10	☐ 5.1%	UPL
8. Picris hieracioides	5	☐ 2.6%	UPL
9. Vicia sp.	10	☐ 5.1%	FAC
10.	0	☐ 0.0%	
	195	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 2 =**	0
FAC species	95	**x 3 =**	285
FACU species	40	**x 4 =**	160
UPL species	60	**x 5 =**	300
Column Totals:	195 **(A)**		745 **(B)**

Prevalence Index = B/A = 3.821

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-16	10YR	3/3	100%						Silt Loam	
16-20	10YR	4/4	75%	10YR	5/3	25%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** WM

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, et

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

Remarks:
Photo # 66NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Phragmites australis	100	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= Total Cover**	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	**x 1 =**	0
FACW species	100	**x 2 =**	200
FAC species	0	**x 3 =**	0
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	100 **(A)**		200 **(B)**

Prevalence Index = B/A = 2.000

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	3/2	95%	10YR	4/6	5%	C	M	Silt Loam	
11-18	10YR	5/4	95%	10YR	5/6	5%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

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, et

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

Remarks:
Flag # N-211, Photo # 69S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Pinus sylvestris	20	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Rubus allegheniensis	90	☑ 81.8%	FACU
2. Solidago canadensis	20	☐ 18.2%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	110	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= 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: 2 (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	110	**x 4 =**	440	
UPL species	20	**x 5 =**	100	
Column Totals:	130	**(A)**	540	**(B)**

Prevalence Index = B/A = 4.154

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-2U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-16	10YR	4/3	100%						Sandy Loam	
16-20	10YR	5/6	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** SSW

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, et

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

Remarks:
Flag # N-211, Photo # 68SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	45	☑ 81.8%	FACW
2. Rhamnus cathartica	10	☐ 18.2%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	55	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Cornus amomum	35	☐ 17.8%	FACW
2. Symphyotrichum novae-angliae	10	☐ 5.1%	FACW
3. Aster sp.	65	☑ 33.0%	FAC
4. Lythrum salicaria	2	☐ 1.0%	OBL
5. Carex sp.	85	☑ 43.1%	FAC
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	197	= Total Cover	
Woody Vine Stratum (Plot size: 30' Radius)			
1. Vitis riparia	15	☐ 100.0%	FAC
2.	0	☐ 0.0%	
	15	= 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	2	**x 1 =**	2
FACW species	90	**x 2 =**	180
FAC species	175	**x 3 =**	525
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	267	**(A)**	707 **(B)**

Prevalence Index = B/A = 2.648

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-2W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	3/1	95%	10YR	4/4	5%	C	M	Silt Loam	
12-18	10YR	5/4	90%	10YR	5/6	10%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** O-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag # O-1, Photo # 85SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Rhus typhina	20	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	**= Total Cover**	
Herb Stratum (Plot size: 5' Radius)			
1. Lonicera sp.	15	☐ 14.3%	FACU
2. Verbascum thapsus	10	☐ 9.5%	UPL
3. Solidago canadensis	80	☑ 76.2%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	105	**= Total Cover**	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	**= 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: 2 (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	95	**x 4 =**	380
UPL species	30	**x 5 =**	150
Column Totals:	125 **(A)**		530 **(B)**

Prevalence Index = B/A = 4.240

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: O-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-13	10YR	3/3	100%						Silt Loam	
13-20	10YR	5/6	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** O-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** WM

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, et

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

Remarks:
Flag # O-1, Photo # 84N

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	15	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Phragmites australis	80	☑ 43.2%	FACW
2. Typha latifolia	30	☐ 16.2%	OBL
3. Aster sp.	65	☑ 35.1%	FAC
4. Acer saccharinum	5	☐ 2.7%	FACW
5. Lysimachia nummularia	5	☐ 2.7%	FACW
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	185	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	105	**x 2 =**	210
FAC species	65	**x 3 =**	195
FACU species	0	**x 4 =**	0
UPL species	0	**x 5 =**	0
Column Totals:	200 **(A)**		435 **(B)**

Prevalence Index = B/A = 2.175

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: O-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-7	10YR	3/2	95%	7.5YR	4/6	5%	C	M	Sandy Loam	
7-15	10YR	4/2	95%	10YR	4/4	5%	D	M	Sandy Loam	
15-18+	10YR	5/2	60%	10YR	4/4	40%			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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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):	4
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** P-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Flag # P-3, Photo # 87SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Rhus typhina	25	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	25	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Symphyotrichum novae-angliae	10	☐ 6.7%	FACW
2. Solidago canadensis	85	☑ 56.7%	FACU
3. Cornus alba	15	☐ 10.0%	FACW
4. Poa sp.	40	☑ 26.7%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	150	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	**x 1 =**	0
FACW species	25	**x 2 =**	50
FAC species	40	**x 3 =**	120
FACU species	85	**x 4 =**	340
UPL species	25	**x 5 =**	125
Column Totals:	175 **(A)**		635 **(B)**

Prevalence Index = B/A = 3.629

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: P-1U

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/3	95%	10YR	5/6	5%	C	M	Silty Clay Loam	
12-18	10YR	4/4	95%	10YR	5/6	5%	C	M	Fine 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** P-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** DFW

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, et

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

Remarks:
Flag # P-3, Photo # 86S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1. Acer saccharinum	50	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	10	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Phragmites australis	95	☑ 95.0%	FACW
2. Tussilago farfara	5	☐ 5.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	155	**x 2 =**	310	
FAC species	0	**x 3 =**	0	
FACU species	5	**x 4 =**	20	
UPL species	0	**x 5 =**	0	
Column Totals:	160	**(A)**	330	**(B)**

Prevalence Index = B/A = 2.063

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: P-1W

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	3/1	98%	10YR	4/4	2%	C	M	Silt Loam	
12-20	10YR	5/6	100%						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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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):	1
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-1

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSU

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, et

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

Remarks:
Flag #F-5, Photo # 31NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Fraxinus americana	45	☑ 60.0%	FACU
2. Rhamnus cathartica	30	☑ 40.0%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	75	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Poa sp.	70	☑ 51.9%	FAC
2. Galium mollugo	5	☐ 3.7%	UPL
3. Asclepias syriaca	5	☐ 3.7%	UPL
4. Solidago canadensis	30	☑ 22.2%	FACU
5. Aster sp.	20	☐ 14.8%	FAC
6. Achillea millefolium	5	☐ 3.7%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	135	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 2 =**	0
FAC species	120	**x 3 =**	360
FACU species	80	**x 4 =**	320
UPL species	10	**x 5 =**	50
Column Totals:	210 **(A)**		730 **(B)**

Prevalence Index = B/A = 3.476

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-1

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/3	100%						Silt Loam	Rocky below

[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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-2

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Ontario gravelly loam, 8 to 15 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Photo # 37SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Fragaria virginiana	5	☐	3.7%	FACU
2. Oxalis stricta	5	☐	3.7%	FACU
3. Daucus carota	35	☑	25.9%	UPL
4. Achillea millefolium	5	☐	3.7%	FACU
5. Ambrosia artemisiifolia	60	☑	44.4%	FACU
6. Dichanthelium clandestinum	10	☐	7.4%	FACW
7. Picris sp.	15	☐	11.1%	FACU
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	135		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= 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: 2 (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	10	**x 2 =**	20	
FAC species	0	**x 3 =**	0	
FACU species	90	**x 4 =**	360	
UPL species	35	**x 5 =**	175	
Column Totals:	135	**(A)**	555	**(B)**

Prevalence Index = B/A = 4.111

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-2

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-18	10YR	4/3	100%						Silt Loam	
18-22+	10YR	4/4	95%	10YR	5/4	5%	C	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-3

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Ontario loam, 2 to 8 percent slopes **Cover Type:** DFU

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, et

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

Remarks:
Photos # 88N, 89S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1. Prunus serotina	60	☑ 60.0%	FACU
2. Malus sp.	40	☑ 40.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Rhamnus cathartica	15	☑ 37.5%	FAC
2. Carya cordiformis	25	☑ 62.5%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	40	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Solidago canadensis	35	☑ 46.7%	FACU
2. Lonicera sp.	25	☑ 33.3%	FACU
3. Toxicodendron radicans	15	☑ 20.0%	FAC
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	75	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 42.9% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	**x 1 =**	0
FACW species	0	**x 2 =**	0
FAC species	55	**x 3 =**	165
FACU species	160	**x 4 =**	640
UPL species	0	**x 5 =**	0
Column Totals:	215 **(A)**		805 **(B)**

Prevalence Index = B/A = 3.744

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-3

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	4/3	100%						Silt Loam	
11-18	10YR	4/4	100%						Fine 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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-4

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

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, et

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

Remarks:
Photos # 90N, 91S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Centaurea maculosa	55	☑ 28.2%	UPL
2. Vicia sp.	5	☐ 2.6%	FAC
3. Taraxacum officinale	15	☐ 7.7%	FACU
4. Galium mollugo	20	☐ 10.3%	UPL
5. Plantago major	35	☐ 17.9%	FACU
6. Carex sp.	65	☑ 33.3%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	195	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= 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	0	**x 2 =**	0
FAC species	70	**x 3 =**	210
FACU species	50	**x 4 =**	200
UPL species	75	**x 5 =**	375
Column Totals:	195 **(A)**		785 **(B)**

Prevalence Index = B/A = 4.026

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-4

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR	3/3	100%						Silty Clay Loam	
14-18	10YR	5/6	90%	10YR	6/1	5%	C	M	Clay Loam	
				10YR	4/3	5%	D	M	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) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ 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:

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 along 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? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

APPENDIX C – JD Information

CHECKLIST OF INFORMATION INCLUDED WITH REQUESTS FOR JURISDICTIONAL DETERMINATIONS (JD)

1. Name (including POC if a corporation or other entity), complete mailing addresses and phone numbers of the following:

Current Property Owner:

Name: _____

Address: _____

Phone Number: _____

Applicant (Project Sponsor):

Name: _____

Address: _____

Phone Number: _____

Wetland Consultant:

Name: Terrestrial Environmental Specialists, Inc..

Address: 23 County Route 6, Suite A, Phoenix, New York 13135

Phone Number: 315-695-7228

2. 8½ x 11 Location Map **(see Figure 8)** showing:
   - UTM Grid Coordinates
   - Stream order and location
   - Head and discharge coordinates of each stream
   - Stream identification (TNWs, perennial RPWs, seasonal RPWs, or non-RPWs)

3. Cover letter **(included in report or to be provided)** describing the purpose of the request, a general description of the proposed project, the size (acres) of the parcel, and the size of the limits of the project site or review area (if smaller than the parcel).

4. Delineation report, including the following supporting information:

   - Description of any current and/or historic land uses on the site **(see Section 4.1 Site Description)**

   - DEC Wetlands Maps, NWI Maps, Soil Survey Maps **(see Figures 2, 3, and 4, respectively)**

   - Watershed size, drainage area size **(see Figure 8)**

   - Discussion of whether tributaries (streams) on the site are TNWs, perennial RPWs, seasonal RPWs, or non-RPWs **(see Figures 8 and 9)**

   - Waters of the U.S. – indicate presence of waters of U.S. in review area (check all that apply):
     - ☐ TNWs, including territorial seas
     - ☐ Wetlands adjacent to TNWs
     - ☒ Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
     - ☒ Non-RPWs that flow directly or indirectly into TNWs
     - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
     - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

CHECKLIST OF INFORMATION INCLUDED WITH REQUESTS FOR JURISDICTIONAL DETERMINATIONS (JD)

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
☐ Impoundments of jurisdictional waters
☐ Isolated (interstate or intrastate) waters, including isolated wetlands

- If wetland on the site either abuts or is adjacent to a tributary, identify which tributary and discuss below:

Explanation: Wetlands A, B, D, I and J are associated with tributaries of Mud Creek. Wetlands L and N are associated with Shaver Creek. .

- If connection to a TNW, explain connection below:

Explanation: RPW's on the site have a surface water connection to the Oneida River, a TNW.

- Project wetlands are **0.5-3** aerial (straight) miles and **0.5-3** river miles from TNW.
- Project waters are **0.5-3** aerial (straight) miles and **0.5-3** river miles from TNW.

- Description of tributary substrate composition (e.g. silts, sands, gravel, etc.) **(see Section 4.3 Wetlands/Water Resources Descriptions)**

- Justification for proposed "isolated" (SWANCC) or non-jurisdictional determinations on any wetlands or streams **N/A**

- Description of vegetative cover types on the site **(see Section 4.2 Site Ecology and Section 4.3 Wetlands/Water Resources)**

- Wetland Delineation Forms for each cover type **(see Appendix B, Field Data Sheets)**

- Color photographs of all representative areas of the site **(see Appendix A, Photographs)**