

*Wetland Delineation Report*

Neelytown Business Park  
Neelytown Road  
Town of Montgomery  
Orange County, NY

January 25, 2023

Prepared by:

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## WETLAND DELINEATION REPORT

**SUBJECT PROPERTY:** *Neelytown Business Park  
Neelytown Road  
Town of Montgomery, Orange County*

**DATE:** January 25, 2023

### 1.0 INTRODUCTION

A Federal wetland delineation was completed for the Neelytown Business Park Site consisting of seven parcels (Tax Parcel Section/Block/Lot # 36-1-33, 36-1-11.221, 36-1-11.23, 36-1-11.1, 36-1-10.1, 36-1-11.212 and 33-1-91) containing approximately 111.47 ± acres (+-) acres located on Neelytown Road in the Town of Montgomery, Orange County New York (*Figure 1*). There are no New York State Department of Environmental Conservation (NYSDEC) wetland located on the site (*Figure 2*).

**Site Coordinates** - The center of the property is approximately at Latitude 041 degrees - 29 minutes - 38.41 seconds North and Longitude 074 degrees - 13 minutes - 39.01 seconds West.

**Property Owner/Applicant** - The Property Owner/Applicant is RDM Group, 1 International Blvd. Suite 410, Mahwah, NJ 07430.

**Project Consultant** - The wetlands were delineated by Michael Nowicki on January 31, 2021. Nowicki's address information is 121 Leon Stocker Drive, Stratton, VT 05360 - Phone Number is 203-910-4716.

**Distance to Navigable Waters** - The USGS Quadrangle shows that wetlands on the site flow off the site southwest to Beaverdam Brook to the Otter Kill and then to the Hudson River. The distance from all of the jurisdictional wetlands on the site to the Hudson River is approximately 15 miles.

**Substrate material** - Substrate in the wetlands are all clay/silt loam. Substrate material in the watercourse on the site is best described as silty substrate with gravel in the bed of the watercourse. The average annual precipitation is 40.72 inches.

**Methodology** - The methodology used for this delineation review consisted of the Routine Onsite Determination Method prescribed in the 1987 USACE Wetlands Delineation Manual<sup>1</sup> and supplement. A baseline, Neelytown Road, was established, and 5 transects were traversed (field investigated) throughout the site. Vegetation was sampled along these transects at 100-foot intervals or observation points where applicable. Dominant vegetation was noted at each point, and hydrophytic (wetland) vegetation was considered to be present when 50% or more of the vegetation throughout the strata of each plant community was classified as either facultative, facultative wet, or obligate wet. Hydrophytic vegetation was also positively identified based on the presence of secondary characteristics including morphological adaptations for occurrence in wetlands. Adaptations noted include: adventitious roots, shallow root

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<sup>1</sup>Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," TR y-87-1, US Waterways Experiment Station, Vicksburg, Miss.

systems where surface rock was not apparent, buttressed trunks, and hypertrophied lenticels. Soils were then sampled where facultative or facultative wet vegetation was dominant. Soils were not determined where the dominant vegetation was obligate wet. These points were classified as Federal wetland without further investigation.

Soil samples were taken with a dutch slotted auger to a depth of 18" of the soil profile where possible. Hydric soil indicators noted include: presence of seasonal high water table, inundation, presence of hydrogen sulfide, soil chroma of 1(without mottles) or 2 (with mottles) as per the Munsell Soil Color Chart, gleying, iron and manganese concretions, and oxidized rhizospheres. Hydric soils were determined to be present when any one of these indicators was recognized (*Figure 3*).

Each observation point was also examined to determine if wetland hydrology was present at some time during the growing season. Indicators of wetland hydrology noted at the site include: soil saturation within the test hole or at the soil surface, inundation, positive drainage patterns, and watermarks on tree trunks or waterstained leaves on the ground.

When an observation point contained all three wetland parameters: hydrophytic vegetation, hydric soils, and evidence of seasonal hydrology, the point was determined to be wetland and corresponded with the flags placed in the field. The area surrounding the observation point was then investigated to determine the upland boundary via the same methodology. The delineation was confirmed in this manner.

Figure 1 Location Map

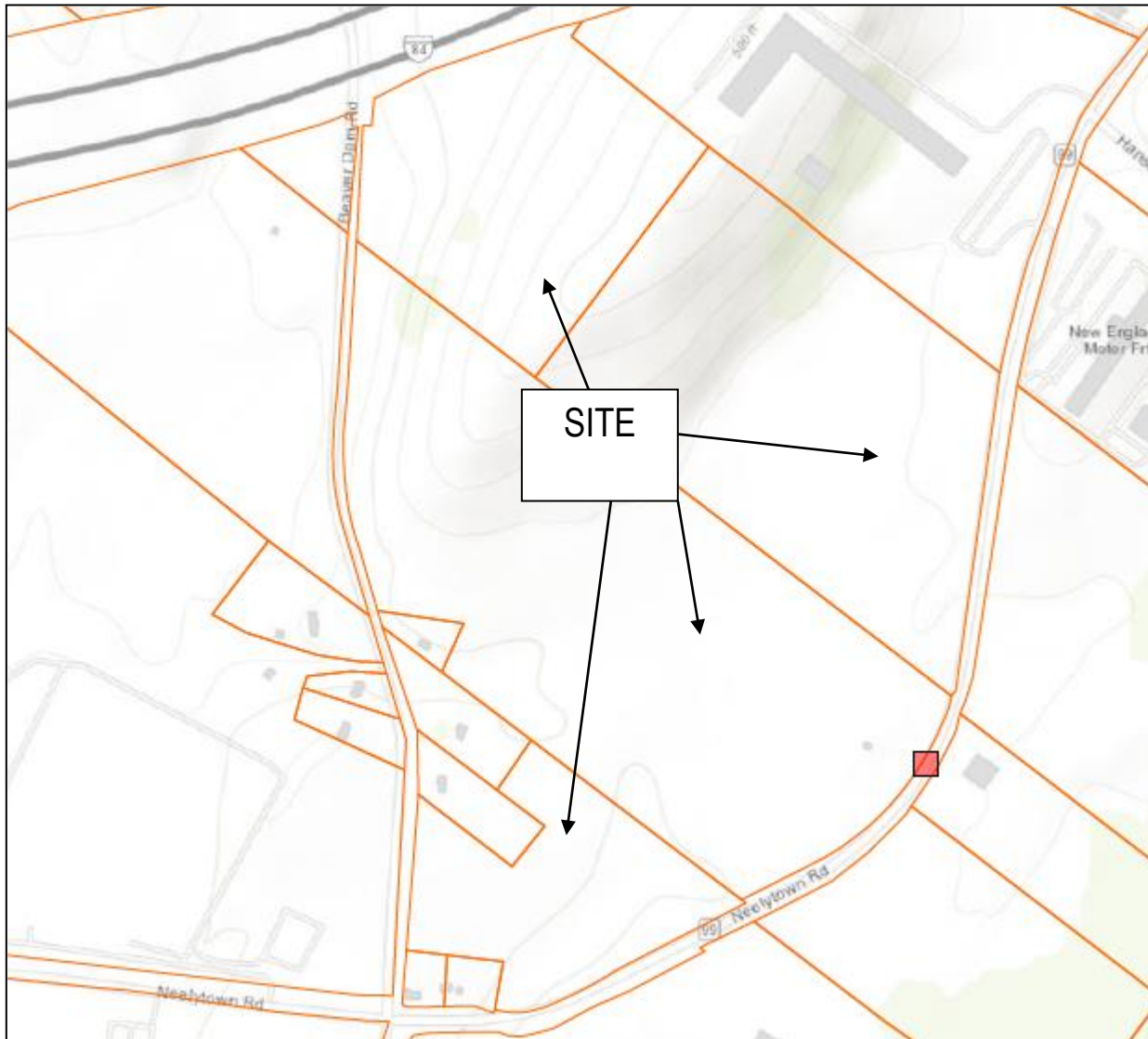


Figure 2 NYSDEC Wetland Map

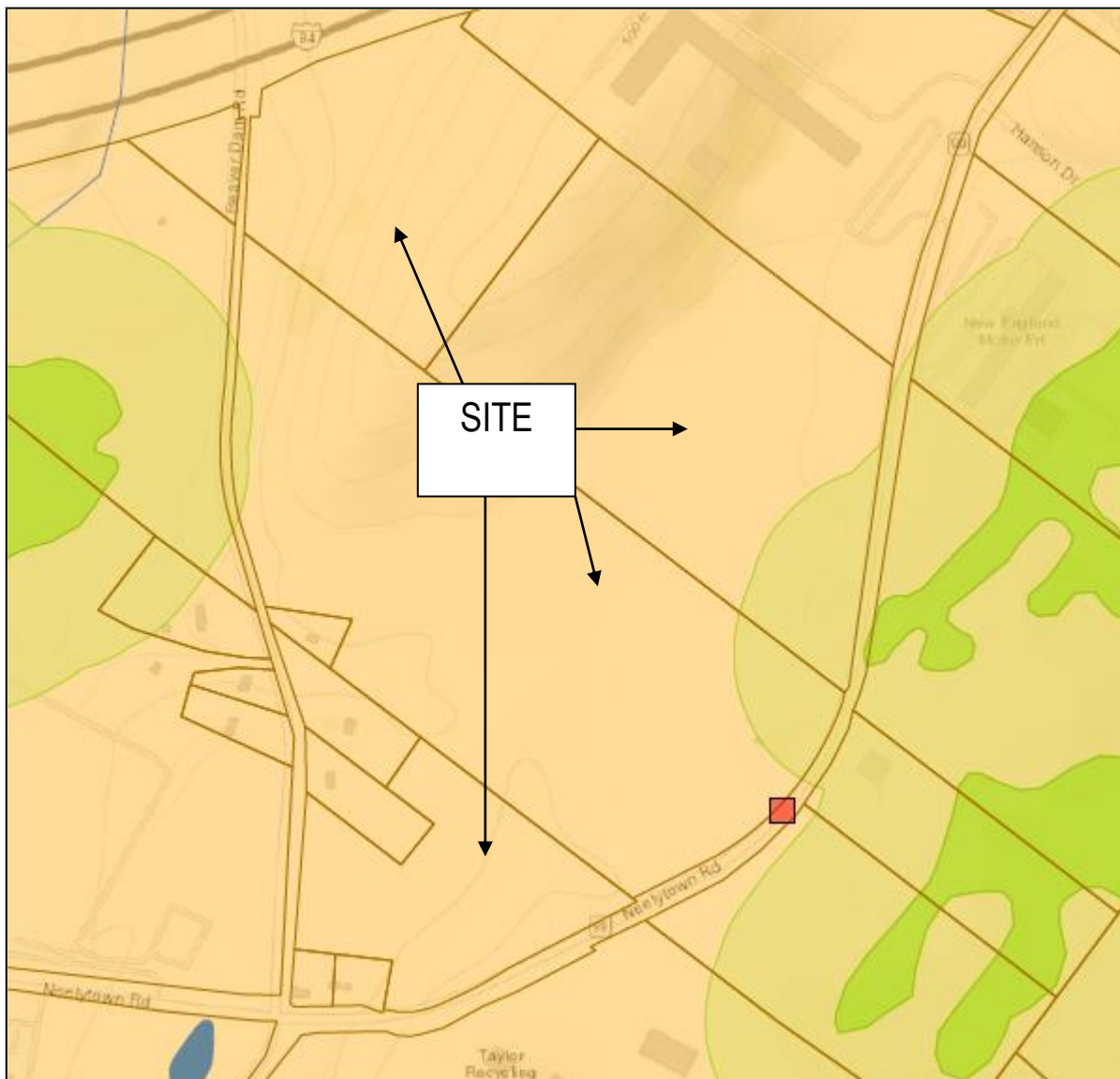
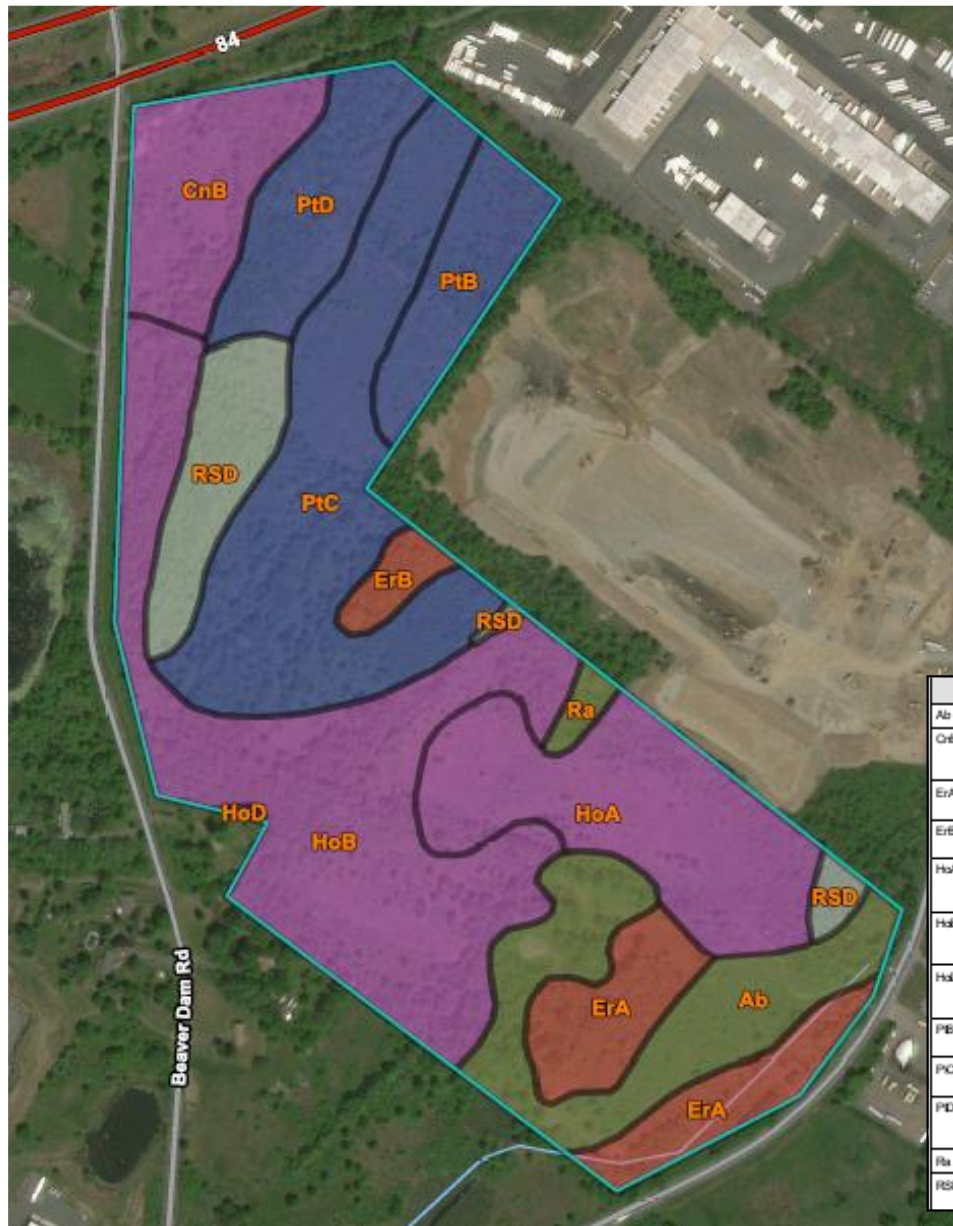


Figure 3 Soils Map



Map unit symbol	Map unit name
Ab	Alden silt loam
CnB	Chenango gravelly silt loam, 3 to 8 percent slopes
ErA	Erie gravelly silt loam, 0 to 3 percent slopes
ErB	Erie gravelly silt loam, 3 to 8 percent slopes
HoA	Holistic gravelly sandy loam, 0 to 3 percent slopes
HoB	Holistic gravelly sandy loam, 3 to 8 percent slopes
HoD	Holistic gravelly sandy loam, 15 to 25 percent slopes
PtB	Pittsfield gravelly loam, 3 to 8 percent slopes
PtC	Pittsfield gravelly loam, 8 to 15 percent slopes
PtD	Pittsfield gravelly loam, 15 to 25 percent slopes
Ra	Rayburn silt loam
RSD	Rock outcrop-Nassau complex, hilly

## 2.0 EXISTING CONDITIONS/SITE CHARACTERISTICS

The property consists of 111.47(+/-) acres including developed area, mixed upland forest, fields, and wetlands.

The results of the site inspection indicate that 1 wetland exhibiting wetland hydrology, soils, and vegetation is present on the southern section of the site. The wetland classification nomenclature is Palustrine Forested (PFO1).

### 2.1 Hydrology

The wetland area was observed to exhibit one or more of the following (1) pooled water and (2) flowing water. On average water depths within the on-site watercourse within the wetland ranged from 0-8 inches.

### 2.2 Hydric Soils

The dominant hydric mapping unit on the site is Ab (Alden silt loam). All of the wetland identified on the site occurred in this series.

### 2.3 Vegetation

Herbaceous species identified within the wetland included *Symplocarpus foetidus* (skunk cabbage), *Onoclea sensibilis* (sensitive fern), *Osmunda cinnamomea* (cinnamon fern), *Carex stricta* (tussock sedge), and *Viola sp.* (violet).

Shrub species observed included *Acer rubrum* (red maple), and *Lindera benzoin* (spicebush), *Ilex verticillata* (winterberry), and *Cornus amomum* (silky dogwood).

Tree species included *Acer rubrum* (red maple), *Ostrya virginiana* (eastern hophornbeam), *Fraxinus pennsylvanica* (green ash), *Ulmus americana* (American elm), *Quercus bicolor*, (swamp white oak), and *Platanus occidentalis* (American sycamore).

### 2.4 Potential Pollutant Sources

There is one source of potential direct pollutants to the wetland on the site - road drainage. Potential pollutants would most likely migrate into the site soils or through the property.



### 3.0 Functional Evaluation

An assessment of wetland functions and values was conducted on the wetland that was identified and delineated on the property. Using a widely accepted method for wetland functions and values assessment developed by the New England District, U.S. Army Corps of Engineers, 13 distinct wetland functions and values were assessed for the delineated wetlands on the site. This method yielded an objective, descriptive quality index of each wetland rather than a subjective quantified rating of each wetland. This assessment had two major objectives:

1. Objectively identify the functions and values provided by the wetland identified on the site.
2. Provide baseline data with which the Applicant could work in planning land uses, and against which the Applicant could assess potential impacts of proposed development of the site

The descriptive quality index of each wetland, based on this methodology, is summarized in this report.

Wetlands are legally protected because of the functions they perform and the benefits that society reaps from those functions. Wetland functions are chemical, physical, and biological processes that wetlands naturally perform as a matter of course, such as absorption of nutrients or floodwaters, or provision of habitat for fish and wildlife. Wetland values are the benefits that society derives from wetland functions, such as flood abatement, or water quality maintenance.

The functions and values assessment conducted on the property was based on the method outlined in *The Highway Methodology Workbook Supplement: Wetland Functions and Values, A Descriptive Approach*, by the U.S. Army Corps of Engineers New England District (November 1995). This method was selected over an arbitrary numeric quantifying assessment scheme because it provides an objective, descriptive approach to functions and values assessment based on professional observation and judgment rather than a simple numeric value rating system. Quantified functions and values assessments do not always provide for descriptive information about wetlands and therefore may overlook important aspects of wetland functions and values.

The Highway Method provides for assessment of the wetland for thirteen defined functions and values. Of these, the first eight are considered wetland functions, and the last five are considered to be wetland values. These are:

1. **Groundwater Recharge/Discharge** – the potential for a wetland to serve as a recharge area for an aquifer or as a surface discharge point for groundwater.
2. **Floodflow Attenuation**– A wetland's ability to store and attenuate floodwaters during prolonged precipitation events, thereby reducing or preventing flood damage.
3. **Fish and Shellfish Habitat** – The ability of permanent or temporary water bodies to provide suitable habitat for fish or shellfish.

4. **Sediment/Toxicant/Pathogen Retention** – The effectiveness of the wetland in trapping sediments, toxicants or pathogens, thereby protecting water quality.
5. **Nutrient Removal/Retention/Transformation** – The effectiveness of the wetland at absorbing, retaining, and transforming or binding excess nutrients, thereby protecting water quality.
6. **Production Export** – The wetland’s ability to produce food or usable products for humans or other living organisms.
7. **Sediment/Shoreline Stabilization** – The wetland’s ability to prevent erosion and sedimentation by stabilizing soils along stream banks or the shorelines of water bodies.
8. **Wildlife Habitat** – The ability of wetlands to provide food, water, cover, or space for wildlife populations typically associated with wetlands or their adjacent areas, both resident and migratory. \*
9. **Recreation** – The value placed on a wetland by society for providing consumptive and non-consumptive as well as active or passive recreational opportunities such as canoeing/boating, fishing, hunting, bird/wildlife watching, hiking, etc.
10. **Education/Scientific Value** – The value placed on a wetland by society for providing subjects for scientific study or research or providing a teaching resource for schools.
11. **Uniqueness/Heritage** – The value placed on a wetland by society for having unique characteristics such as archaeological sites or sites of historical events, unusual aesthetic qualities, or unique plants, animals, or geologic features, etc.
12. **Visual Quality/Aesthetics** – The value placed on a wetland by society for having visual and/or other aesthetic qualities.
13. **Threatened or Endangered Species Habitat** – The value placed on a wetland by society for effectively harboring or providing habitat for threatened or endangered species.

Each function or value in the list has a set list of qualifiers for identifying which functions and values are performed or provided by each wetland. The qualifiers are referenced by number on a standard evaluation form to document the functions and values assessment. In addition to outlining qualifying rationale for each function and value, the data forms also document information on each wetland’s size, distance to nearest road or other development, adjacent land uses, position in the watershed, impacts from human activity, tributaries, cover types, connectivity to other wetlands, and general condition. All of these elements factor into the functions and values assessment. An assessment was performed on the wetland on the site. Findings of the assessment are outlined below.

**Wetland 1** receives water primarily through overland sheet flow and is connected to the Hudson River by **ephemeral relatively permanent waters (RPW)** watercourses. Hydrological indicators identified within

the wetland included soil saturation, watermarks, drift lines, drainage patterns, and water stained leaves. This wetland is mainly a broad-leafed deciduous forested wetland (PFO1E) with some minor wet meadow and scrub/shrub components. This wetland is generally a red maple-spicebush dominated swamp that is seasonally inundated. This system is surrounded by undeveloped meadow and second-growth forest. Functions and values provided by these wetlands include floodflow attenuation, sediment trapping, nutrient removal, production export, and wildlife habitat. Of these, the most significant functions based on extent of rationale in identifying functions and values, are floodflow attenuation, sediment trapping, and wildlife habitat.

Wildlife useage noted in these wetlands is consistent with deer tracks observed in the substrate as well as raccoon tracks and other mammals. Bird species would also be prevalent with many old nests observed in the vegetation in the wetlands

### **3.0 SUMMARY**

The wetland delineated at the site meets the criteria to be defined as Federal wetland. A general functional evaluation was completed and is provided. Representative photographs and data sheets are included in this report.

## 4.0 PHOTOGRAPHS

Federal Wetland at front of the site.

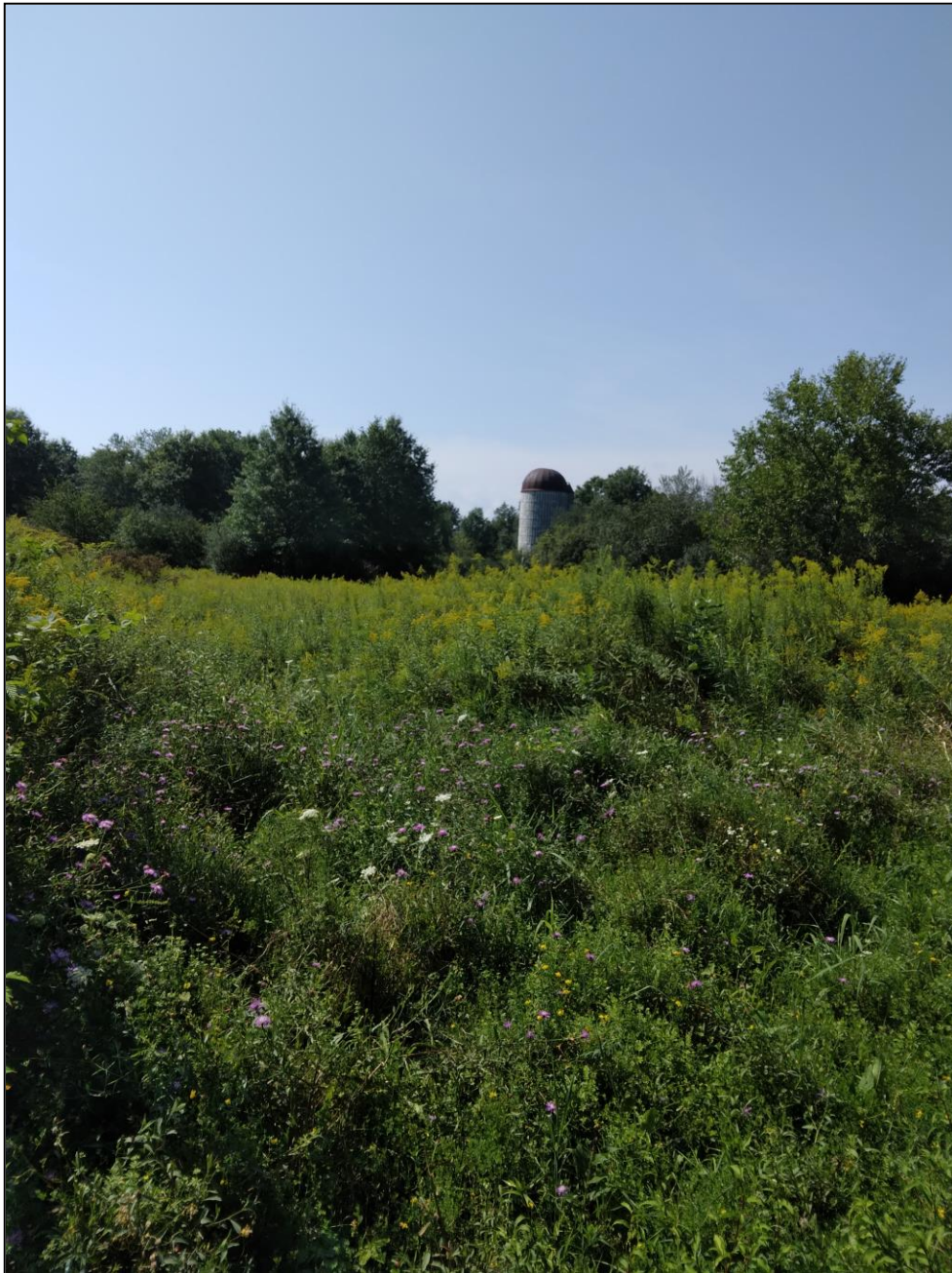




Field and Woodline on the site.



Field and farm remains on the site.





Young successional woods on the site.





## **Attachment A – Data Sheets**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Needy Town Business Ctr. City/County: Montgomery / Orange Sampling Date: 1/30/21  
 Applicant/Owner: ROM Group State: NY Sampling Point: 1-8  
 Investigator(s): Mike Maurichi Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-15  
 Subregion (LRR or MLRA): CR1 Lat: 41° 29' 38.41" Long: 74° 15' 39.01" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Alder silt loam NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0-8</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<p><b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____</p>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>Front drainage course 0-8 inches water depth</u>	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-3

Tree Stratum (Plot size: <u>10'x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer rubrum</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Aquasus palustris</u>	<u>15</u>		<u>FACW</u>
3. <u>Quercus bicolor</u>	<u>5</u>		<u>FACW</u>
4. <u>Ulmus americana</u>	<u>15</u>		<u>FACW</u>
5. _____			
6. _____			
7. _____			

**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 (A/B)

Sapling/Shrub Stratum (Plot size: <u>10'x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lindera benzoin</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2. <u>Carex stolonifera</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
3. <u>Ilex verticillata</u>	<u>10</u>		<u>FACW</u>
4. _____			
5. _____			
6. _____			
7. _____			

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>125</u>	x 2 = <u>250</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: <u>175</u> (A)	<u>350</u> (B)

Prevalence Index = B/A = 2

Herb Stratum (Plot size: <u>10'x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Symplocarpus foetidus</u>	<u>10</u>		<u>OBL</u>
2. <u>Carex stricta</u>	<u>5</u>		<u>OBL</u>
3. <u>Juncus effusus</u>	<u>15</u>		<u>FACW</u>
4. <u>Lythrum salicaria</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
5. <u>Scirpus cyperinus</u>	<u>10</u>		<u>FACW</u>
6. <u>Typha latifolia</u>	<u>10</u>		<u>OBL</u>
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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

**Definitions of Vegetation Strata:**

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

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

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

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

Hydric Soil Present? Yes  No

Hydrophytic Vegetation Present? Yes  No

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