Site Plan Application

Town of Lansing, NY

Application #: Revision: 0 Date: 10/29/25

Project: Cayuga Data Campus

By: TeraWulf Inc.

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EXECUTIVE SUMMARY – SITE PLAN REVIEW APPLICATION

Industrial/Research (IR) District – Town of Lansing

Date:

October 29, 2025

Submitted by:

TeraWulf Inc. and Cayuga Operating Company LLC (the "Applicants")

Project Name:

Cayuga Data Campus

Location:

Former Cayuga Generation Site – Town of Lansing, Tompkins County, New York

1 Project Overview

The Cayuga Data Campus (the "Project") is a modern research and technology campus located on the former Cayuga power plant property. The Project restores long-standing industrial site historically dedicated to utility-scale infrastructure, and adapts it for research-grade digital processing rather than electricity generation.

Because the site was purpose-built for heavy-duty, high-reliability infrastructure, the Project achieves a beneficial reuse of existing assets without new greenfield disturbance or the conversion of agricultural land.

2 Site Context and Campus Design

The overall site comprises approximately 434 acres, of which 183 acres are leased for the Cayuga Data Campus. The initial development area is limited to roughly 43 acres on the interior plateau, screened by natural topography and year-round vegetation.

The campus consists of multiple low-profile research buildings arranged to preserve existing view corridors. Mechanical systems will be enclosed or shielded, and roof-mounted equipment will remain within permitted height limits. Cooling will be delivered by closed-loop systems that neither withdraw from nor discharge to Cayuga Lake. Potable water will be sourced from Bolton Point solely for domestic and fire-safety needs.

3 Phasing and Construction Sequence

The Project will develop approximately 138 MW of enclosed research computing infrastructure in phases. Phase I consists of a 50-MW building, followed by two additional 50-MW buildings. Each building is anticipated to require 12–14 months from Notice to Proceed through commissioning. This sequential approach:

• Aligns capacity increases with infrastructure readiness;

Executive Summary – Site Plan Review Application October 29, 2025 Page 2

- Minimizes construction disturbance through steady, controlled build-out; and
- Supports consistent pipeline of skilled regional trade employment.

4 Infrastructure and Environmental Benefits

The Project will deliver multiple public-facing and environmental advantages, including:

- No lake water usage for cooling closed-loop cooling independent of Cayuga Lake.
- No combustion or stack emissions zero-combustion research operation.
- No greenfield or farmland conversion redevelopment of an existing industrial property.
- **Regional connectivity** broadband infrastructure extension.
- Low-noise profile equipment enclosed and acoustically engineered.
- Local employment permanent operations roles and sustained trades work.
- Community commitment charitable and public-service partnerships.

5 Consistency with the IR District Purpose and 2018 Comprehensive Plan

The Industrial/Research (IR) District is intended to accommodate land uses involving assembly, fabrication, or research (as outlined in Schedule I to § 270 of the Town Code) and to foster small employment centers.

The Town's 2018 Comprehensive Plan expressly encourages:

- "redevelopment or retrofitting of aging or abandoned industrial or commercial sites" and
- "Infill development and redevelopment opportunities that take full advantage of existing infrastructure"

to avoid both abandonment and sprawl.

The Project implements these policy goals directly—reusing a legacy industrial site for a modern research use, requiring no variance, and fitting squarely within the permitted Schedule I categories of General Processing and Warehouse/Storage of Non-Agricultural Goods, which are allowed in the IR District as of right subject to site-plan review.

6 Use Classification Based on Plain Dictionary Meaning

Schedule I of the Town Zoning Ordinance permits both (i) **General Processing** and (ii) **Warehouse / Storage of non-agricultural goods** within the IR District. Because the Ordinance does not define these terms, their ordinary dictionary meaning governs.

Under Merriam-Webster:

• "Process / Processing" = "to subject to a series of operations or steps"

Executive Summary – Site Plan Review Application October 29, 2025 Page 3

• "Warehouse / Warehousing" - "a place for the storage of goods"

Neither definition limits "goods" to physical objects. The zoning ordinance similarly contains no language restricting either term to tangible materials. Under New York strict-construction doctrine, a municipality may not narrow the meaning of a permitted category by implication or by adding limitations not present in the text:

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"Zoning ordinances, being in derogation of the common law, must be strictly construed against the municipality."
(3 N.Y. Zoning Law & Prac. § 50:1)
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Widely accepted planning and technical authorities similarly define data centers as facilities for the *processing* and *storage* of data:

- **Wikipedia:** a facility "used to house computer systems and associated components, such as telecommunications and *storage* systems."
- Amazon Web Services (AWS): "a physical location that stores computing machines and ... is the physical facility that *stores* a company's digital data."
- The American Planning Association (APA): "a physical facility that houses servers, storage, and networking infrastructure to support digital applications and services."

Thus, the Cayuga Data Campus falls squarely within both permitted categories under Schedule I:

- 1. **General Processing** research data is subjected to continuous operational computation (e.g., AI workloads, scientific simulations, analytics).
- 2. Warehouse / Storage of Non-Agricultural Goods research datasets are securely housed as non-agricultural goods.

Accordingly, the Project is a permitted use in the IR District and properly before the Planning Board for site-plan review.

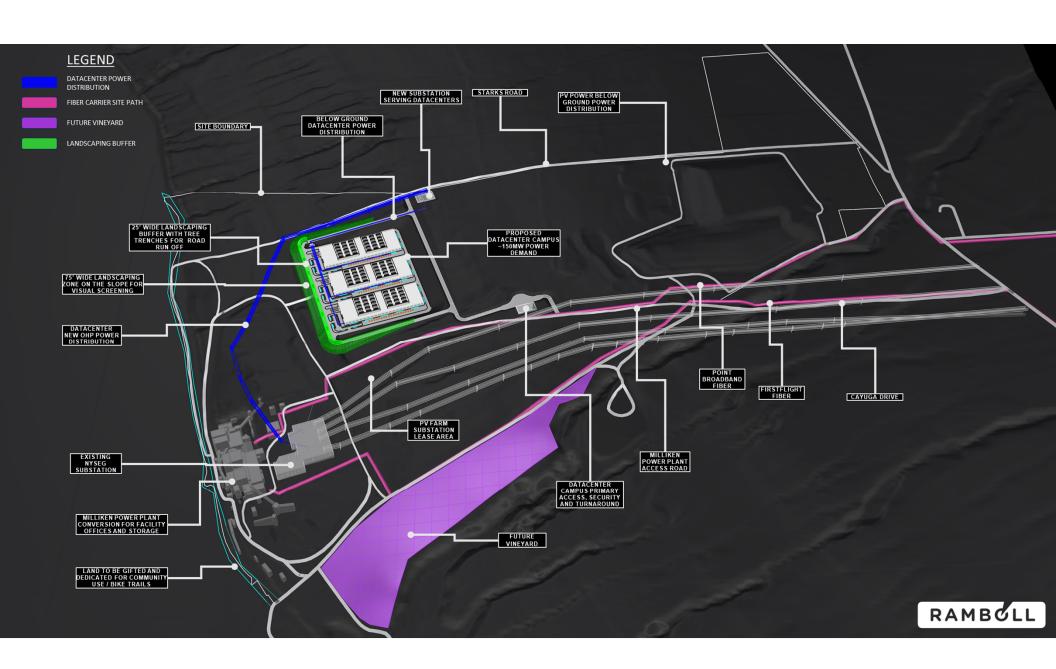
7 Conclusion

The Cayuga Data Campus is a lawful adaptive reuse of a legacy industrial site consistent with both the text and intent of the IR District and the 2018 Comprehensive Plan. The Project requires no variance and is submitted for site-plan review as a permitted use under Schedule I of the Zoning Ordinance.

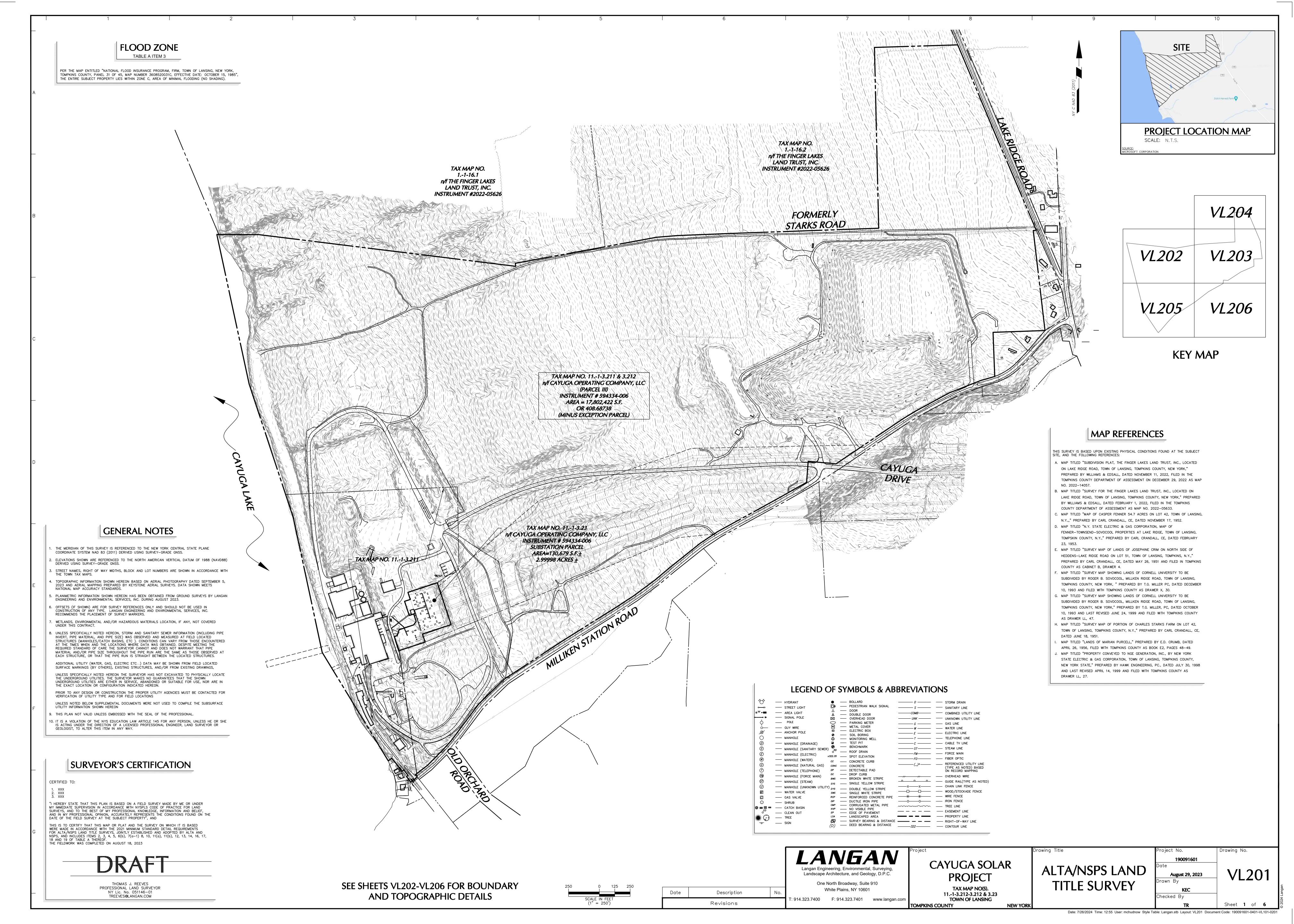
Table of Contents

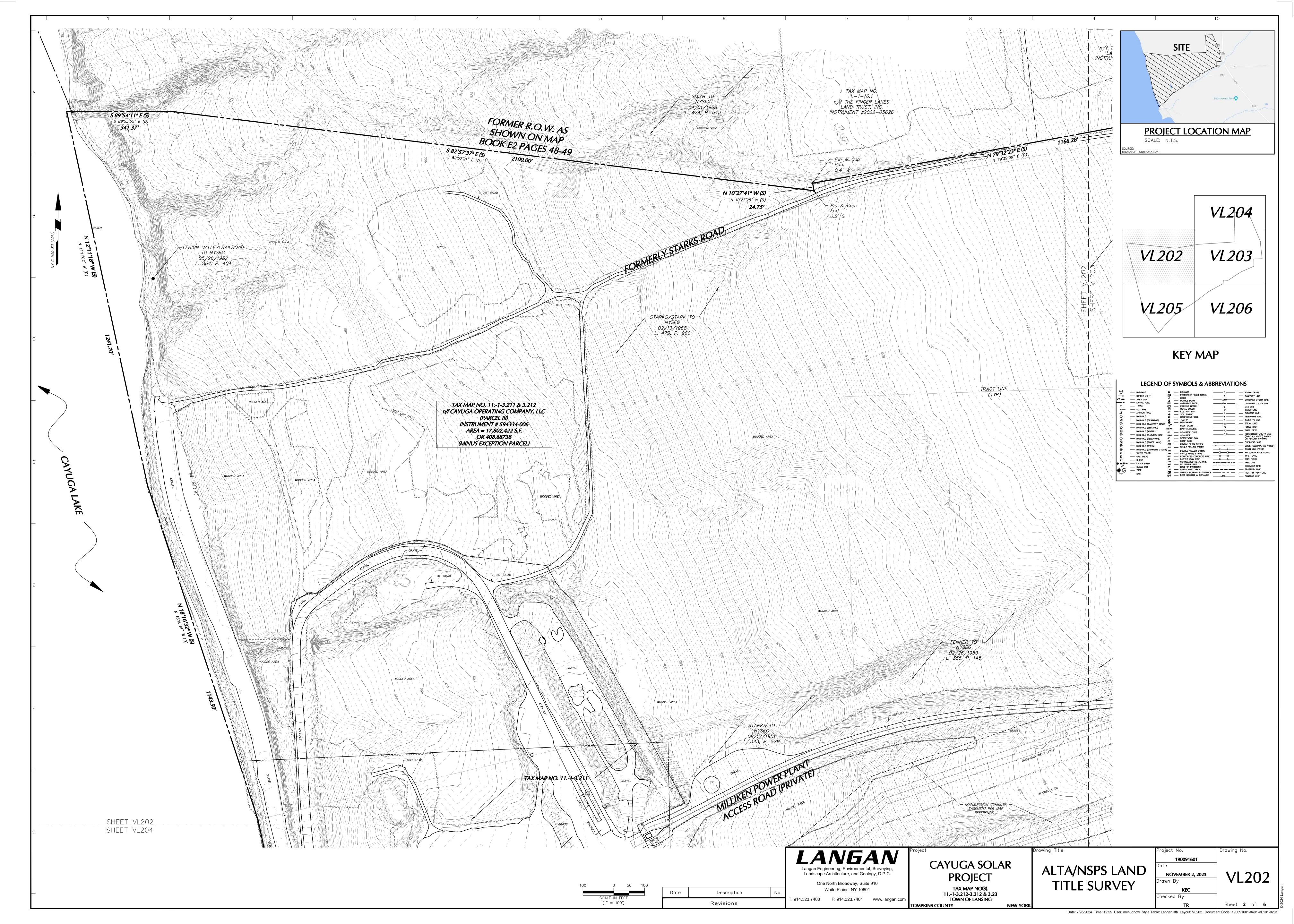
Section 1	. Site Master Plan
Section 2	. Site Survey
Section 3	Site Plan & Elevations
Section 4	Wetland Delineation Assessment
Section 5	Stormwater Pollution Prevention Plan (SWPPP)
Section 6	Planting Approach
Section 7	Agricultural District Statement
Section 8	Environmental Assessment Form
Section 9	Site Plan Renderings
Section 10	Acoustical Design Memo
Section 11	Photometric and Lighting Layout

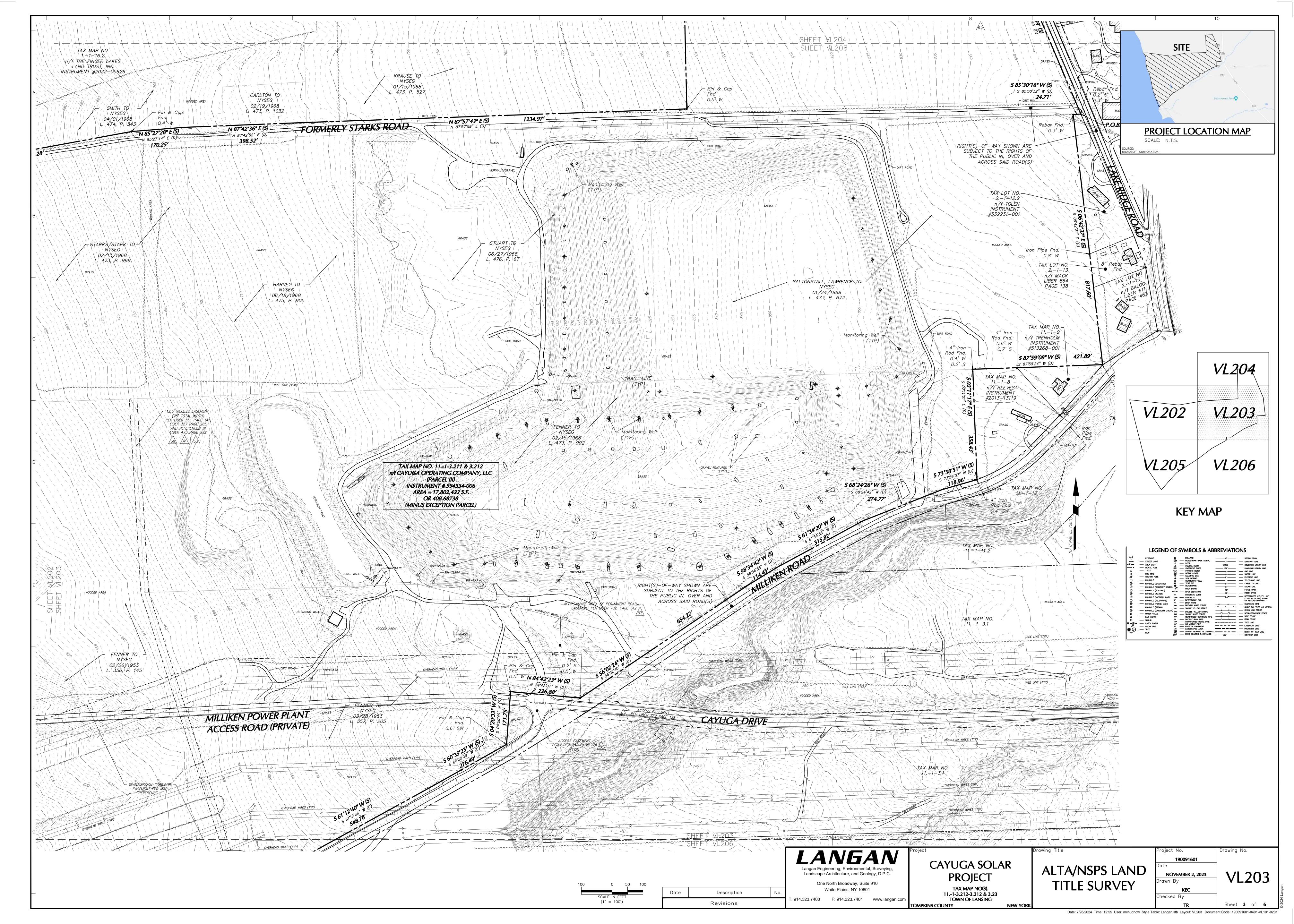
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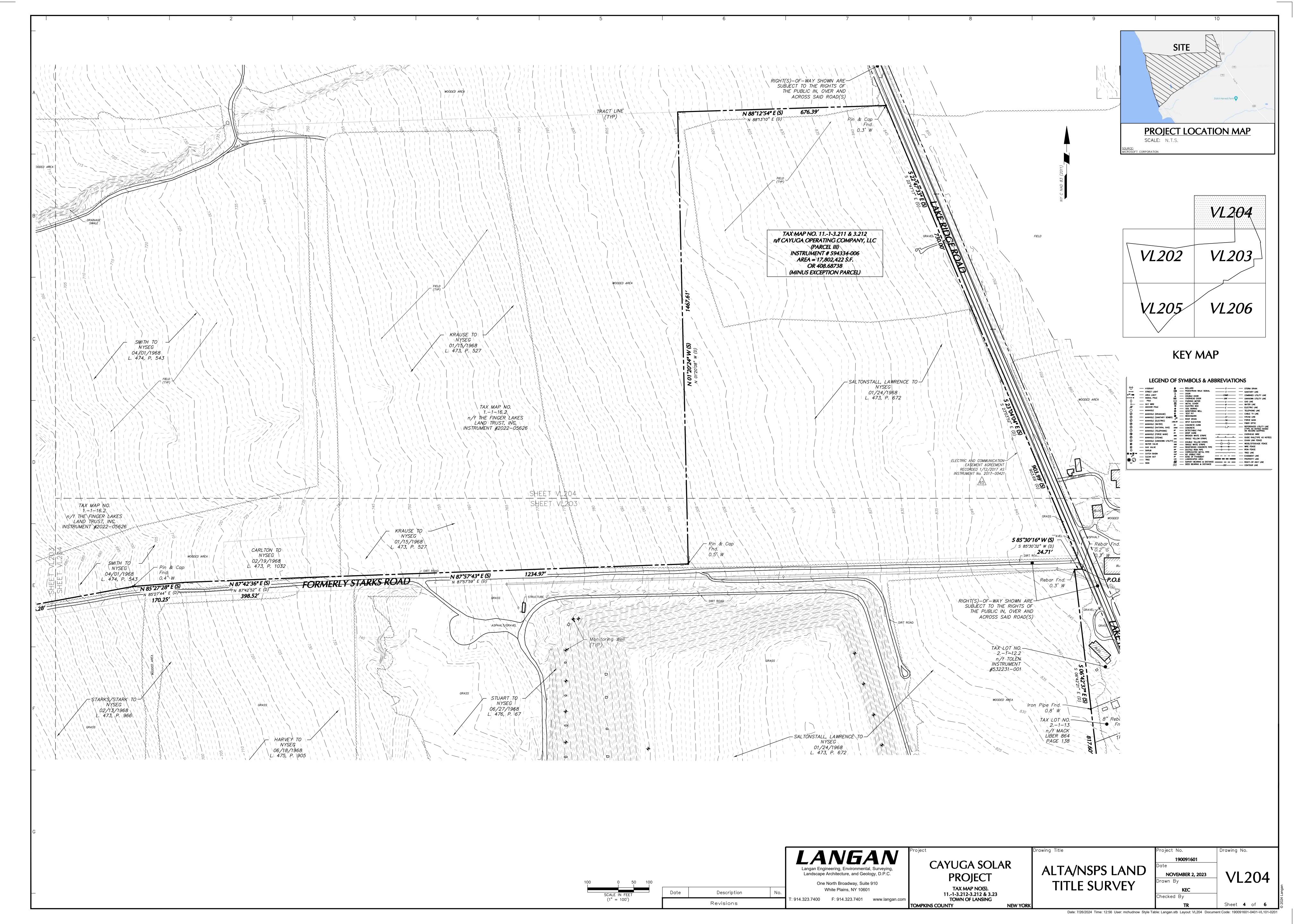


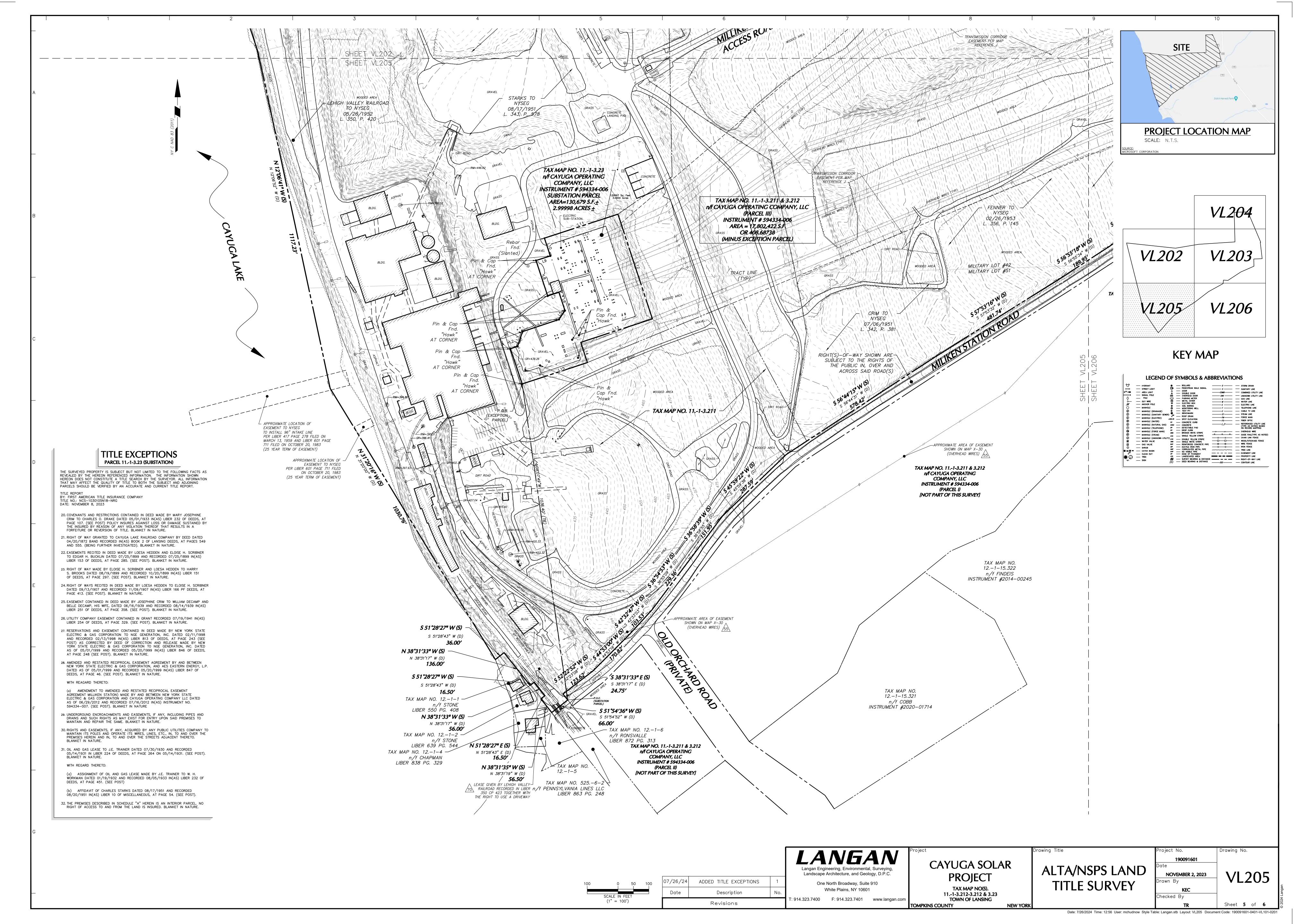
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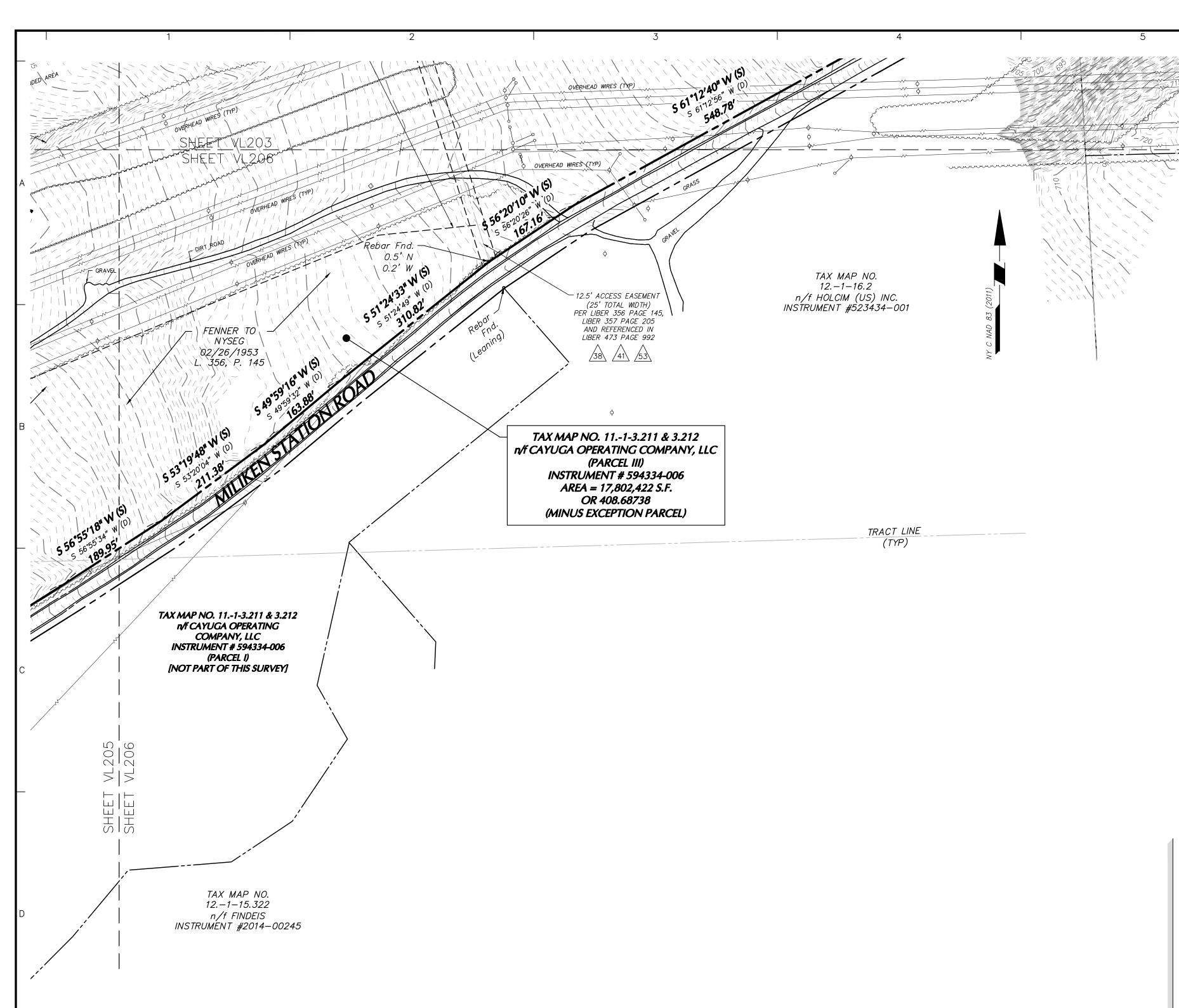












SURVEYOR'S DESCRIPTION

BEGINNING AT A POINT IN WESTERLY LINE OF LAKE RIDGE ROAD, WIDTH VARIES, WHERE THE SAME IS INTERSECTED BY THE DIVISION LINE BETWEEN LANDS HEREIN DESCRIBED AND LANDS NOW OF FORMERLY OF TOLEN, AS DESCRIBED IN INSTRUMENT NO. 532231-001, WITNESSED BY A REBAR, FOUND, MEASURED 0.2' SOUTHERLY AND 0.3' WESTERLY, AND RUNNING; THENCE

- 1. ALONG SAID DIVISION LINE, SOUTH 85°30'16" WEST, A DISTANCE OF 24.71 FEET, TO A POINT, WITNESSED BY A
- REBAR, FOUND, MEASURED 0.3' WESTERLY; THENCE 2. ALONG SAID DIVISION LINE, THEN ALONG LANDS NOW OR FORMERLY OF MACK, AS DESCRIBED IN LIBER 864 PAGE 138, THEN ALONG LANDS NOW OR FORMERLY OF BALOG, AS DESCRIBED IN LIBER 611 PAGE 463, SOUTH 06'42'37" EAST, A DISTANCE OF 817.60 FEET, TO A POINT IN THE NORTHWESTERLY LINE OF MILLIKEN STATION ROAD, 49.5
- FEET WIDE, WITNESSED BY A REBAR, FOUND, MEASURED 0.6' WESTERLY; THENCE 3. LEAVING MILLIKEN STATION ROAD, ALONG THE DIVISION LINE BETWEEN LANDS HEREIN DESCRIBED AND LANDS NOW OR FORMERLY OF TRENHOLM, AS DESCRIBED IN INSTRUMENT NO. 513268-001, THEN ALONG LANDS NOW OR FORMERLY OF REEVES, AS DESCRIBED IN INSTRUMENT NO. 2013-13119, SOUTH 87'59'08" WEST, A DISTANCE OF 421.89 FEET,
- TO A POINT, WITNESSED BY AN IRON ROD, FOUND, MEASURED 0.4' WESTERLY AND 0.2' SOUTHERLY; THENCE 4. ALONG SAID LANDS OF REEVES, SOUTH 02"11". EAST, A DISTANCE OF 358.43 FEET, TO A POINT IN SAID NORTHWESTERLY LINE OF MILLIKEN STATION ROAD, WITNESSED BY AN IRON ROD, FOUND, MEASURED 0.4'
- 5. ALONG SAID NORTHWESTERLY LINE OF MILLIKEN STATION ROAD, SOUTH 73"58"51" WEST, A DISTANCE OF 118.96 FEET,
- TO A POINT; THENCE
- 6. CONTINUING ALONG THE SAME, SOUTH 68°24'26" WEST, A DISTANCE OF 274.77 FEET, TO A POINT; THENCE
- 7. ALONG THE SAME, SOUTH 61°34'20" WEST, A DISTANCE OF 315.82 FEET, TO A POINT; THENCE
- 8. ALONG THE SAME, SOUTH 58"34'42" WEST, A DISTANCE OF 114.45 FEET, TO A POINT; THENCE 9. ALONG THE SAME, SOUTH 56°02'24" WEST, A DISTANCE OF 654.22 FEET, TO A POINT, WITNESSED BY A PIN WITH
- CAP, FOUND, MEASURED 0.2' SOUTHERLY AND 0.5' WESTERLY; THENCE 10. LEAVING MILLIKEN STATION ROAD, NORTH 84°42'23" WEST, A DISTANCE OF 226.88 FEET, TO A POINT, WITNESSED BY
- A PIN WITH CAP, FOUND, MEASURED 0.5' WESTERLY; THENCE 11. SOUTH 04°20'33" WEST, A DISTANCE OF 171.75 FEET, TO A POINT IN SAID NORTHWESTERLY LINE OF MILLIKEN
- STATION ROAD, WITNESSED BY A PIN WITH CAP, FOUND, MEASURED 0.6' SOUTHWESTERLY; THENCE
- 12. ALONG SAID NORTHWESTERLY LINE OF MILLIKEN STATION ROAD, SOUTH 60'35'23" WEST, A DISTANCE OF 276.49 FEET,
- 13. CONTINUING ALONG THE SAME, SOUTH 61"12'40" WEST, A DISTANCE OF 548.78 FEET, TO A POINT; THENCE 14. ALONG THE SAME, SOUTH 56"20'10" WEST, A DISTANCE OF 167.16 FEET, TO A POINT, WITNESSED BY A REBAR,
- FOUND, MEASURED 0.5' NORTHERLY AND 0.2' WESTERLY; THENCE
- 15. ALONG THE SAME, SOUTH 51"24'33" WEST, A DISTANCE OF 310.82 FEET, TO A POINT; THENCE 16. ALONG THE SAME, SOUTH 49°59'16" WEST, A DISTANCE OF 163.88 FEET, TO A POINT; THENCE
- 17. ALONG THE SAME, SOUTH 5319'48" WEST, A DISTANCE OF 211.38 FEET, TO A POINT; THENCE 18. ALONG THE SAME, SOUTH 56°55'18" WEST, A DISTANCE OF 189.95 FEET, TO A POINT; THENCE
- 19. ALONG THE SAME, SOUTH 57°53'16" WEST, A DISTANCE OF 481.74 FEET, TO A POINT; THENCE
- 20. ALONG THE SAME, SOUTH 56'44'15" WEST, A DISTANCE OF 578.42 FEET, TO A POINT; THENCE
- 22. ALONG THE SAME, SOUTH 36'58'39" WEST, A DISTANCE OF 151.95 FEET, TO A POINT; THENCE
- 23. ALONG THE SAME, SOUTH 36°54'53" WEST, A DISTANCE OF 229.36 FEET, TO A POINT; THENCE 24. ALONG THE SAME, SOUTH 42'32'47" WEST, A DISTANCE OF 103.53 FEET, TO A POINT; THENCE
- 25. ALONG THE SAME, SOUTH 44'53'00" WEST, A DISTANCE OF 170.82 FEET, TO A POINT; THENCE
- 26. ALONG THE SAME, SOUTH 52"22"52" WEST, A DISTANCE OF 123.62 FEET, TO A POINT IN THE SOUTHWESTERLY TERMINUS OF SAID MILLIKEN STATION ROAD; THENCE
- 27. ALONG SAID TERMINUS, SOUTH 38*31'33" EAST, A DISTANCE OF 24.75 FEET, TO THE CENTER LINE OF SAID ROAD;
- 28. ALONG THE DIVISION LINE BETWEEN LANDS HEREIN DESCRIBED AND LANDS NOW OR FORMERLY OF PENNSYLVANIA LINES, LLC, AS DESCRIBED IN LIBER 863 PAGE 248, SOUTH 51"54'36" WEST, A DISTANCE OF 66.00 FEET, TO A POINT IN THE DIVISION LINE BETWEEN LANDS HEREIN DESCRIBED AND LANDS NOW OR FORMERLY OF RONSVALLE, AS
- DESCRIBED IN LIBER 872 PAGE 313; THENCE 29. ALONG SAID LANDS AND THEN ALONG LANDS NOW OR FORMERLY OF STONE, AS DESCRIBED IN LIBER 639 PAGE 544, NORTH 38°31'35" WEST, A DISTANCE OF 56.50 FEET, TO A POINT; THENCE

30. ALONG SAID LANDS, NORTH 51°28'27" EAST, A DISTANCE OF 16.50 FEET; THENCE

- 31. ALONG THE SAME, NORTH 38'31'33" WEST, A DISTANCE OF 56.00 FEET, TO A POINT; THENCE 32. ALONG THE SAME, SOUTH 51"28'27" WEST, A DISTANCE OF 16.50 FEET, TO A POINT IN THE DIVISION LINE BETWEEN LANDS HEREIN DESCRIBED AND LANDS NOW OR FORMERLY OF STONE, AS DESCRIBED IN LIBER 550 PAGE 408;
- 33. ALONG THE SAME, NORTH 38'31'33" WEST, A DISTANCE OF 136.00 FEET, TO A POINT; THENCE 34. ALONG THE SAME, SOUTH 51'28'27" WEST, A DISTANCE OF 36.00 FEET, TO A POINT ON THE EASTERLY SHORE OF

- 35. ALONG SAID EASTERLY SHORE, NORTH 31'20'16" WEST, A DISTANCE OF 1030.76 FEET, TO A POINT; THENCE 36. ALONG THE SAME, NORTH 12'06'41" WEST, A DISTANCE OF 1117.23 FEET, TO A POINT; THENCE
- 37. ALONG THE SAME, NORTH 1816'32" WEST, A DISTANCE OF 1143.50 FEET, TO A POINT; THENCE
- 38. ALONG THE SAME, NORTH 1211'18" WEST, A DISTANCE OF 1241.70 FEET, TO A POINT; THENCE
- 39. LEAVING SAID EASTERLY SHORE OF CAYUGA LAKE, ALONG LANDS NOW OR FORMERLY OF THE FINER LAKES LAND TRUST, INC., AS DESCRIBED IN INSTRUMENT NO. 2022-05626, SOUTH 89'54'11" EAST, A DISTANCE OF 341.37 FEET, TO A POINT; THENCE
- 40. ALONG SAID LANDS, SOUTH 82°57'37" EAST, A DISTANCE OF 2100.00 FEET, TO A POINT, WITNESSED BY A PIN WITH CAP, FOUND, MEASURED 0.2' SOUTHERLY; THENCE 41. ALONG THE SAME, NORTH 10°27'41" WEST, A DISTANCE OF 24.75 FEET, TO A POINT, WITNESSED BY A PIN WITH CAP,
- FOUND, MEASURED 0.4' WESTERLY; THENCE 42. ALONG THE SAME, NORTH 79'32'23" EAST, A DISTANCE OF 1166.28 FEET, TO A POINT, WITNESSED BY A PIN WITH
- CAP, FOUND, MEASURED 0.4' WESTERLY; THENCE 43. ALONG THE SAME, NORTH 85°27'28" EAST, A DISTANCE OF 170.25 FEET, TO A POINT; THENCE
- 44. ALONG THE SAME, NORTH 87*42'36" EAST, A DISTANCE OF 398.52 FEET, TO A POINT; THENCE
- 45. ALONG THE SAME, NORTH 87'57'43" EAST, A DISTANCE OF 1234.97 FEET, TO A POINT, WITNESSED BY A PIN WITH
- CAP, FOUND, MEASURED 0.5' WESTERLY; THENCE 46. ALONG THE SAME, NORTH 01'20'24" WEST, A DISTANCE OF 1467.61 FEET, TO A POINT; THENCE
- 47. ALONG THE SAME, NORTH 8812'54" EAST, A DISTANCE OF 676.39 FEET, TO A POINT IN THE AFOREMENTIONED
- WESTERLY LINE OF LAKE RIDGE ROAD, WITNESSED BY PIN WITH CAP, FOUND, MEASURED 0.3' WESTERLY; THENCE 48. ALONG SAID WESTERLY LINE OF LAKE RIDGE ROAD, SOUTH 22'47'33" EAST, A DISTANCE OF 730.00 FEET, TO A
- 49. ALONG THE SAME, SOUTH 23"04" OA" EAST, A DISTANCE OF 903.99 FEET, TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM, TAX MAP 11.-1-3.23, SUBSTATION PARCEL, AS SHOWN IN INSTRUMENT NO. 594334-006,

COMMENCING AT THE TERMINUS OF THE 27TH/ COURSE OF THE ABOVE DESCRIPTION AND RUNNING; THENCE;

A. NORTH 0811'47" WEST, A DISTANCE OF 1036.70 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK", AND POINT OF

- BEGINNING; THENCE
- NORTH 18'29'05" WEST, A DISTANCE OF 120.43 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE 2. NORTH 71°30'56" EAST, A DISTANCE OF 24.00 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- NORTH 18'58'53" EAST, A DISTANCE OF 50.72 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- 4. NORTH 71°36'37" EAST, A DISTANCE OF 124.62 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- 5. NORTH 34°07'08" EAST, A DISTANCE OF 34.78 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- 6. NORTH 18"14'33" WEST, A DISTANCE OF 62.67 FEET, TO A POINT; THENCE 7. SOUTH 71°55'10" WEST, A DISTANCE OF 38.37 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- 8. NORTH 18'11'46" WEST, A DISTANCE OF 121.12 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED 'HAWK'; THENCE
- 9. NORTH 72°09'34" EAST, A DISTANCE OF 48.83 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE 10. NORTH 18'31'38" WEST, A DISTANCE OF 60.86 FEET, TO A PIN WITH CAP, FOUND, IDENTIFIED "HAWK"; THENCE
- 11. NORTH 71°55'06" EAST, A DISTANCE OF 251.15 FEET, TO A POINT; THENCE

DESCRIBED AS FOLLOWS:

- 12. SOUTH 18"11'28" EAST, A DISTANCE OF 357.80 FEET, TO A POINT; THENCE 13. SOUTH 71'48'12" WEST, A DISTANCE OF 244.57 FEET, TO A POINT; THENCE
- 14. SOUTH 18'05'44" EAST, A DISTANCE OF 68.93 FEET, TO A POINT; THENCE 15. SOUTH 71'50'49" WEST, A DISTANCE OF 222.67 FEET, TO THE POINT OF BEGINNING.

RECORD DESCRIPTION

PARCEL III (FOR INFORMATION ONLY: TAX PARCEL 11-1-3.212 AND PART OF 11-1-3.211)

TS INTERSECTION WITH THE DIVISION LINE BETWEEN THE PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTH AND THE PROPERTY NOW OR FORMERLY OWNED BY HENRY TOLEN ON THE SOUTH; RUNNING THENCE SOUTH 85° 30' 32" WEST ALONG SAID DIVISION LINE, A DISTANCE OF 24.71 FEET TO A FOUND 5/8 INCH REBAR AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE WEST AND SAID PROPERTY NOW OR FORMERLY OWNED BY HENRY TOLEN ON THE EAST;

THENCE SOUTH 06° 42' 21" EAST ALONG THE LAST MENTIONED DIVISION LINE, ALONG THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE WEST AND THE PROPERTY NOW OR FORMERLY OWNED BY STEPHEN JAMES AND DOREEN M. MACK ON THE EAST. AND ALONG THE DIVISION LINF BETWEEN SAID PROPERTY OWNER BY AES EASTERN ENERGY, L.P. ON THE WEST AND THE PROPERTY NOW OR FORMERLY OWNED BY CHARLES D. BALOG SR. AND JOLAN E. BALOG ON THE EAST, A DISTANCE OF 817.60 FEET TO A FOUND 5/8 INCH REBAR IN CONCRETE WITH "MACNEILL" CAP ON THE NORTHEASTERLY BOUNDARY OF

TRENHOLM AND ROBERT MEZZANOTTE ON THE SOUTH; THENCE SOUTH 87' 59' 24" WEST ALONG THE LAST MENTIONED DIVISION LINE AND ALONG THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTH AND THE PROPERTY NOW OR FORMERLY OWNED BY RICHARD C. JONES, JR. ON THE SOUTH, A DISTANCE OF 421.89 FEET TO A FOUND 5/8 INCH REBAR AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE WEST

AND SAID PROPERTY NOW OR FORMERLY OWNED BY RICHARD 5/8 INCH REBAR AT ITS INTERSECTION WITH THE NORTHWESTERLY BOUNDARY OF MILLIKEN STATION ROAD;

- THENCE ALONG THE LAST MENTIONED BOUNDARY AND ALONG MILLIKEN STATION ROAD (COUNTY ROAD 156), THE FOLLOWING TWENTY-THREE (23) COURSES AND DISTANCES:
- (2) THENCE SOUTH 68° 24' 42" WEST, A DISTANCE OF 274.77 FEET TO A POINT;
- (3) THENCE SOUTH 61° 34' 36" WEST, A DISTANCE OF 315.82 FEET TO A POINT;
- (7) THENCE SOUTH 04° 20' 49" WEST, A DISTANCE OF 171.75 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP;
- (9) THENCE SOUTH 61° 12' 56" WEST, A DISTANCE OF 548.78 FEET TO A POINT;
- (10) THENCE SOUTH 56° 20' 26" WEST, A DISTANCE OF 167.16 FEET TO A FOUND 5/8 INCH REBAR;

- (13) THENCE SOUTH 53° 20' 04" WEST, A DISTANCE OF 211.38 FEET TO A POINT;
- (15) THENCE SOUTH 57° 53' 32" WEST, A DISTANCE OF 481.74 FEET TO A POINT;
- (16) THENCE SOUTH 56° 44' 31" WEST, A DISTANCE OF 578.42 FEET TO A POINT;
- (17) THENCE SOUTH 45° 59' 38" WEST, A DISTANCE OF 287.59 FEET TO A POINT;
- (19) THENCE SOUTH 36° 55' 09" WEST, A DISTANCE OF 229.36 FEET TO A POINT;

BEGINNING AT A FOUND 1-1/4 INCH BOLT ON THE EXISTING SOUTHWESTERLY ROAD BOUNDARY OF LAKE RIDGE ROAD AT

MILLIKEN STATION ROAD (COUNTY ROAD 156) AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTH AND THE PROPERTY NOW OR FORMERLY OWNED BY SARAH

THENCE SOUTH 02° 11' 01" EAST ALONG THE LAST MENTIONED DIVISION LINE, A DISTANCE OF 358.43 FEET TO A FOUND

- (1) SOUTH 73° 59' 07" WEST, A DISTANCE OF 118.96 FEET TO A POINT;
- (4) THENCE SOUTH 58° 34' 58" WEST, A DISTANCE OF 114.45 FEET TO A POINT;
- (5) THENCE SOUTH 56° 02' 40" WEST, A DISTANCE OF 654.22 FEET TO FOUND A 5/8 INCH REBAR WITH "HAWK" CAP; (6) THENCE NORTH 84° 42' 07" WEST, A DISTANCE OF 226.88 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP;
- (8) THENCE SOUTH 60° 35' 39" WEST, A DISTANCE OF 276.49 FEET TO A POINT;
- (11) THENCE SOUTH 51° 24' 49" WEST, A DISTANCE OF 310.82 FEET TO A POINT; (12) THENCE SOUTH 49° 59' 32" WEST, A DISTANCE OF 163.88 FEET TO A POINT;
- (14) THENCE SOUTH 56° 55' 34" WEST, A DISTANCE OF 189.95 FEET TO A POINT;
- (18) THENCE SOUTH 36° 58' 55" WEST, A DISTANCE OF 151.95 FEET TO A POINT;
- (20) THENCE SOUTH 42° 33' 03" WEST, A DISTANCE OF 103.53 FEET TO A POINT;
- (21) THENCE SOUTH 44* 53' 16" WEST, A DISTANCE OF 170.82 FEET TO A POINT; AES EASTERN ENERGY, L.P. (22) THENCE SOUTH 52° 23' 08" WEST, A DISTANCE OF 123.62 FEET TO A POINT;

- THENCE SOUTH 38° 31' 17" EAST, A DISTANCE OF 24.75 FEET TO A POINT AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTH AND THE PROPERTY NOW OR FORMERLY OWNED BY PENNSYLVANIA LINES LLC ON THE SOUTH; THENCE SOUTH 51° 54' 52" WEST, ALONG THE LAST MENTIONED DIVISION LINE. A DISTANCE OF 66.00 FEET TO POINT AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY.
- L.P. ON THE NORTHEAST AND THE PROPERTY NOW OR FORMERLY OWNED BY HERITAGE PARK TOWNHOUSES, INC. THENCE ALONG THE LAST MENTIONED DIVISION LINE, ALONG THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTHEAST AND THE PROPERTY NOW OR FORMERLY OWNED BY FRED J. AND EY D. STONE ON THE SOUTHWEST, AND ALONG THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE NORTHEAST AND THE PROPERTY NOW OR FORMERLY OWNED BY FRED J. STONE
- AND SHIRLEY DEEB STONE ON THE SOUTHWEST; THE FOLLOWING SIX (6) COURSES AND DISTANCES: NORTH 38° 31' 19" WEST, A DISTANCE OF 56.50 FEET TO A POINT;
- (2) THENCE NORTH 51° 28' 43" EAST, A DISTANCE OF 16.50 FEET TO A POINT;
- (3) THENCE NORTH 38° 31' 17" WEST, A DISTANCE OF 56.00 FEET TO A POINT;
- (4) THENCE SOUTH 51° 28' 43" WEST, A DISTANCE OF 16.50 FEET TO A POINT; (5) THENCE NORTH 38° 31' 17" WEST, A DISTANCE OF 136.00 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP;
- (6) THENCE SOUTH 51° 28' 43" WEST, A DISTANCE OF 36.00 FEET TO A POINT AT ITS INTERSECTION WITH THE EXISTING SHORELINE OF CAYUGA LAKE
- THENCE GENERALLY NORTHERLY ALONG SAID SHORELINE, A DISTANCE OF 4,711 FEET, MORE OR LESS, DEFINED BY
- THE FOLLOWING FOUR (4) COURSES AND DISTANCES: (1) NORTH 31° 20' 00" WEST, A DISTANCE OF 1,030.76 FEET TO A POINT;
- (2) THENCE NORTH 12° 06' 25" WEST, A DISTANCE OF 1,117.23 FEET TO A POINT; (3) THENCE NORTH 18° 16' 16" WEST, A DISTANCE OF 1,143.50 FEET TO A POINT;
- (4) THENCE NORTH 12° 11' 02" WEST, A DISTANCE OF 1,241.70 FEET TO A POINT AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE SOUTH AND THE PROPERTY NOW OR FORMERLY OWNED BY NEW YORK STATE ELECTRIC & GAS CORPORATION ON THE NORTH;
- THENCE ALONG THE LAST MENTIONED DIVISION LINE THE FOLLOWING SEVEN (7) COURSES AND DISTANCES: (1) SOUTH 89° 53' 55" EAST, A DISTANCE OF 341.37 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP;
- (2) THENCE SOUTH 82° 57' 21" EAST, A DISTANCE OF 2,100.00 FEET TO A POINT;
- (3) THENCE NORTH 10° 27' 25" WEST, A DISTANCE OF 24.75 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP
- (4) THENCE NORTH 79° 32' 39" EAST, A DISTANCE OF 1,166.28 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK"
- (5) THENCE NORTH 85° 27' 44" EAST, A DISTANCE OF 170.25 FEET TO A POINT; (6) THENCE NORTH 87° 42' 52" EAST, A DISTANCE OF 398.52 FEET TO A POINT;
- (7) THENCE NORTH 87° 57' 59" EAST, A DISTANCE OF 1,234.97 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE EAST AND SAID PROPERTY NOW OF FORMERLY OWNED BY NEW YORK STATE ELECTRIC & GAS CORPORATION

THENCE NORTH 01° 20' 08" WEST ALONG THE LAST MENTIONED DIVISION LINE, A DISTANCE OF 1,467.61 FEET TO A FOUND 5/8 INCH REBAR WITH "HAWK" CAP AT ITS INTERSECTION WITH THE DIVISION LINE BETWEEN SAID PROPERTY OWNED BY AES EASTERN ENERGY, L.P. ON THE SOUTH AND SAID PARCEL NOW OR FORMERLY OWNED BY NEW YORK STATE ELECTRIC & GAS CORPORATION ON THE NORTH;

THENCE NORTH 88° 13' 10" EAST, ALONG THE LAST MENTIONED DIVISION LINE, A DISTANCE OF 676.39 FEET TO A

- FOUND 5/8 INCH REBAR WITH "HAWK" CAP AT ITS INTERSECTION WITH THE ABOVE FIRST MENTIONED ROAD
- THENCE ALONG SAID FIRST MENTIONED ROAD BOUNDARY THE FOLLOWING TWO (2) COURSES AND DISTANCES: (1) SOUTH 22° 47' 17" EAST, A DISTANCE OF 730.30 FEET TO A POINT;

(2) THENCE SOUTH 23° 03' 52" EAST, A DISTANCE OF 903.69 FEET TO THE POINT OR PLACE OF BEGINNING.

TITLE EXCEPTIONS

EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, FROM CASPER L. FENNER

LIBER 357 CP 201 (BLANKET IN NATURE).

THE SURVEYED PROPERTY IS SUBJECT BUT NOT LIMITED TO THE FOLLOWING FACTS AS 39. REVEALED BY THE HEREON REFERENCED INFORMATION. THE INFORMATION SHOWN HEREON DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR ALL INFORMATION THAT MAY AFFECT THE QUALITY OF TITLE TO BOTH THE SUBJECT AND ADJOINING PARCELS SHOULD BE VERIFIED BY AN ACCURATE AND CURRENT TITLE REPORT.

BY: FIRST AMERICAN TITLE INSURANCE COMPANY DATE: OCTOBER 16, 2020

- 19. COVENANTS AND RESTRICTIONS CONTAINED IN DEED RECORDED IN LIBER 232 CP 107 (BLANKET IN NATURE).
- 20. COVENANTS AND RESTRICTIONS, AND EASEMENTS TOGETHER WITH THE RIGHT TO TRIM TREES, CONTAINED IN DEED RECORDED IN LIBER 740 CP 216 (BLANKET IN COVENANTS AND RESTRICTIONS, TOGETHER WITH EASEMENTS RESERVED IN DEED FROM NEW YORK STATE ELECTRIC & GAS CORPORATION TO NGE GENERATION,
- AND RELEASE RECORDED 5/20/1999 IN LIBER 846 CP 248 (BLANKET IN 22. RESERVATION FOR RIGHT OF WAY RECITED IN A DEED RECORDED 4/14/1840 IN

INC., RECORDED 2/13/1998 IN LIBER 813 CP 243 AND IN DEED OF CORRECTION

- LIBER NN OF DEEDS, PAGE 458, AS REPEATED IN LIBER PP OF DEEDS, PAGE 102 45. AND LIBER 65 OF DEEDS, PAGE 29 (BLANKET IN NATURE). 23. SUBJECT TO ALL RIGHTS CONVEYED TO CAYUGA LAKE RAILROAD COMPANY BY WILLIAM MCGUFFIE AND OTHERS BY DEED RECORDED 5/1/1876 IN LIBER 2 OF
- 24. SUBJECT TO ALL RIGHTS OF THE LEHIGH VALLEY RAILROAD COMPANY IN THE DEED TO THE CAYUGA LAKE RAILROAD COMPANY FROM H.B. PERRY AND E ELIZABETH PERRY RECORDED 5/1/1876 IN LIBER 2 OF LANSING DEEDS AT PAGE

LANSING DEEDS AT PAGE 549 (DEED ILLEGIBLE).

- 555 (DEED ILLEGIBLE). 25. RESERVATION RECITED IN A DEED RECORDED 9/30/1892 IN LIBER 139 OF DEEDS, PAGE 366 (BLANKET IN NATURE).
- 26. RIGHT OF WAY CONVEYED TO HARRY S. BROOKS IN DEED RECORDED 10/20/1899 IN LIBER 151 CP 297 AS REPEATED IN LIBER 152 CP 105 (BLANKET IN NATURE). 27. RIGHT OF WAY CONVEYED TO EDGAR H. BUCKLIN IN DEED RECORDED 7/25/1899
- IN LIBER 153 CP 285 (BLANKET IN NATURE). 28. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 2/25/1931 IN LIBER 225 CP 145 (BLANKET IN NATURE).
- 29. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 2/25/1931 IN LIBER 225 CP 150 (BLANKET IN NATURE).
- 30. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 2/25/1931 IN LIBER 225 CP 153 (BLANKET IN NATURE). 31. ELECTRIC, TELEPHONE AND COMMUNICATION EASEMENT AGREEMENT, TOGETHER

WITH THE RIGHT TO TRIM TREES, RECORDED 6/25/1941 IN LIBER 254 OF DEEDS,

- PAGE 325 AND AS SUPPLEMENTED BY LIBER 464 OF DEEDS, PAGE 96 (BLANKET 32. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 6/25/1941 IN LIBER 254 CP 328
- 33. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 6/25/1941 IN LIBER 254 CP 329 (BLANKET IN NATURE).
- ELECTRIC & GAS CORPORATION RECORDED 3/11/1942 IN LIBER 259 CP 417 (BLANKET IN NATURE). 35. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE

34. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE

ELECTRIC & GAS CORPORATION RECORDED 3/11/1942 IN LIBER 259 CP 422 (BLANKET IN NATURE) 36. SUBJECT TO ANY RIGHTS OF THE STATE OF NEW YORK TO A PORTION OF THE PREMISES WHICH MIGHT BE INCLUDED WITHIN THE WESTERN BOUNDARIES OF THE PREMISES AS SET FORTH IN A DEED TO NEW YORK STATE FLECTRIC AND GAS

AND MAP FILED IN CABINET B, DRAWER 4 (BLANKET IN NATURE).

(EXTINGUISHED BY UNITY OF TITLE - SHOWN ON SURVEY).

SUBJECT TO ANY RIGHTS OF ADJOINING OWNERS TO CROSS THE PREMISES SET FORTH IN DEED TO NEW YORK STATE ELECTRIC AND GAS CORPORATION DATED 5/26/1952 AND RECORDED 7/5/1952 IN LIBER 350 CP 420 (UNABLE TO PLOT). 38. RIGHT OF WAY FOR INGRESS AND EGRESS OVER A STRIP OF LAND 121/2 FEET WIDE AS RESERVED IN DEED FROM CASPER L. FENNER TO NEW YORK STATE

ELECTRIC & GAS CORPORATION RECORDED 2/26/1953 IN LIBER 356 CP 145

CORPORATION DATED 7/5/1951 AND RECORDED 7/6/1951 IN LIBER 342 CP 381,

- EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, FROM CASPER L. FENNER TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 4/28/1953 IN 62.
- TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 4/28/1953 IN 594334-008 (BLANKET IN NATURE). LIBER 357 CP 203 (BLANKET IN NATURE). RIGHT OF WAY FOR INGRESS AND EGRESS OVER A STRIP OF LAND 121/2 FEET AMENDED AND RESTATED PAYMENT-IN-LIEU-OF-TAX AGREEMENT MADE BY AND WIDE AS RESERVED IN DEED FROM CASPER L. FENNER TO NEW YORK STATE BETWEEN THE TOMPKINS COUNTY INDUSTRIAL DEVELOPMENT AGENCY AND ELECTRIC & GAS CORPORATION RECORDED 4/28/1953 IN LIBER 357 CP 205 CAYUGA OPERATING COMPANY, LLC DATED AS OF 7/17/2015, AS SET FORTH IN
- 42. ELECTRIC, TELEPHONE AND COMMUNICATION EASEMENT AGREEMENT. TOGETHER WITH THE RIGHT TO TRIM TREES, RECORDED 7/3/1953 IN LIBER 359 OF DEEDS, PAGE 248 (BLANKET IN NATURE). 2016-11094 (BLANKET IN NATURE). 43. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE
- (BLANKET IN NATURE). EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 7/1953 IN LIBER 359 CP 272 (BLANKET IN NATURE).

ELECTRIC & GAS CORPORATION RECORDED 7/30/1953 IN LIBER 359 CP 249

EASEMENT FOR RAILROAD EMBANKMENT RECORDED 9/4/1953 IN LIBER 361 OF

(EXTINGUISHED BY UNITY OF TITLE - SHOWN ON SURVEY).

- DEEDS, PAGE 297 (UNABLE TO PLOT CORRECT LOCATION). OBLIGATION TO MAINTAIN FENCES RECITED IN DEED RECORDED 11/29/1953 IN LIBER 364 CP 404 (UNABLE TO PLOT CORRECT LOCATION). 47. PERMIT TO DISCHARGE SEWAGE OR WASTES INTO THE WATERS OF THE STATE
- EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 10/7/1955 IN LIBER 382 CP 311
- 49. EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 12/4/1957 IN LIBER 402 CP 281 EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK TELEPHONE COMPANY RECORDED 9/1/1959 IN LIBER 420 CP 304 (BLANKET IN NATURE).
- EASEMENT, TOGETHER WITH THE RIGHT TO TRIM TREES, TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 6/29/1962 IN LIBER 440 CP 735 (BLANKET IN NATURE). 52. EASEMENT TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED
- 1/24/1968 IN LIBER 473 CP 672 (BLANKET IN NATURE). EASEMENT TO NEW YORK STATE ELECTRIC & GAS CORPORATION RECORDED 2/15/1968 IN LIBER 473 CP 992 (EXTINGUISHED BY UNITY OF TITLE - SHOWN
- 54. ELECTRIC, TELEPHONE AND COMMUNICATION EASEMENT AGREEMENT RECORDED 6/30/1971 IN LIBER 493 OF DEEDS, PAGE 386 (BLANKET IN NATURE). OVERHEAD ELECTRIC WIRES SHOWN ON MAP FILED 12/10/1993 IN MAP DRAWER X-30 (OFF SITE - SHOWN ON SURVEY) EASEMENTS CONTAINED IN DEED FROM NEW YORK STATE ELECTRIC & GAS
- CORPORATION TO TOMPKINS COUNTY RECORDED 6/28/1995 IN LIBER 752 CP 178 (SHOWN ON SURVEY). PERMANENT ROADWAY EASEMENT RECORDED 10/11/1996 IN LIBER 782 OF DEEDS, PAGE 312 (SHOWN ON SURVEY).
- AMENDED AND RESTATED RECIPROCAL EASEMENT AGREEMENT (MILLIKEN STATION) BETWEEN NEW YORK STATE FLECTRIC & GAS CORPORATION AND AES FASTERN ENERGY, I.P., DATED AS OF 5/1/1999 AND RECORDED 5/20/1999 IN LIBER 847 OF DEEDS. PAGE 46. AMENDMENT TO AMENDED AND RESTATED RECIPROCAL EASEMENT AGREEMENT (MILLIKEN STATION) BY AND BETWEEN NEW YORK STATE ELECTRIC & GAS CORPORATION AND CAYUGA OPERATING COMPANY LLC DATED AS OF 6/29/2012 AND RECORDED 7/16/2012 AS INSTRUMENT NO. 594334-007 (BLANKET IN NATURE).
- FOOD CROPS ON ANY PORTION OF THE ABOVE-DESCRIBED PREMISES USED AT ANY TIME AS A FLY ASH DISPOSAL FACILITY RECORDED 02/13/1998 IN LIBER 813. PAGE 243 (BLANKET IN NATURE) SUBJECT TO A LICENSE AGREEMENT BETWEEN NEW YORK STATE ELECTRIC & GAS CORPORATION AND ROBIN FARMS, INC., DATED 2/7/1995 GRANTING ROBIN FARMS

FORTH IN A PERMIT ISSUED BY THE NEW YORK STATE DEPARTMENT OF

SUBJECT TO COVENANTS AND RESTRICTIONS RUNNING WITH THE LAND AS SET

ENVIRONMENTAL CONSERVATION PROHIBITING NEW YORK STATE ELECTRIC & GAS

CORPORATION ITS SUCCESSORS AND ASSIGNS FROM GROWING OR CUITIVATING

A LICENSE TO USE A PORTION OF THE PREMISES FOR AGRICULTURAL PURPOSES (OFF SITE - LOT 16.2). A PERMANENT RIGHT OF WAY AND EASEMENT TO THE TOWN OF LANSING TO LAY, CONSTRUCT, OPERATE, MAINTAIN, ALTER, REPAIR, REMOVE, REPLACE OR CHANGE THE SIZE OF A WATER MAIN WITH APPURTENANCES ACROSS A PORTION OF THE

- INDUCEMENT RESOLUTION RECORDED 3/6/2009 AS INSTRUMENT NO. 538683-004 (BLANKET IN NATURE). RIGHT OF FIRST REFUSAL AGREEMENT RECORDED 7/16/2012 AS INSTRUMENT NO.
- THE MORTGAGE SET FORTH BELOW. COLLATERAL SECURITY MORTGAGE. SECURITY AGREEMENT, ASSIGNMENT OF LEASES AND RENTS AND FIXTURE FILING MADE BY AND BETWEEN CAYUGA OPERATING COMPANY, LLC, TOMPKINS COUNTY INDUSTRIAL DEVELOPMENT AGENCY AND MUFG UNION BANK, N.A., AS COLLATERAL AGENT, DATED AS OF 9/1/2016 AND RECORDED 9/16/2016 AS INSTRUMENT NO.
- ELECTRIC AND COMMUNICATION EASEMENT AGREEMENT RECORDED 1/12/2017 AS INSTRUMENT NO. 2017-00421 (SHOWN ON SURVEY). SUBJECT TO ANY RIGHTS, IF ANY, OF THE LEHIGH VALLEY RAILROAD COMPANY IN THE PREMISES (BLANKET IN NATURE) 67. OIL AND GAS LEASE TO J.E. TRAINER DATED 7/30/1930 AND RECORDED IN LIBER
- LONG THEREAFTER AS OIL OR GAS IS PRODUCED FROM THE LANDS LEASED AND ROYALTY AND RENTAL PAID BY LESSEE THEREFOR, AS ASSIGNED TO WILLIAM H. WORKMAN BY ASSIGNMENT OF LEASE RECORDED 8/5/1933 IN LIBER 232 OF DEEDS, PAGE 451 (BLANKET IN NATURE). OIL AND GAS LEASE TO J.E. TRAINER DATED 7/30/1930 AND RECORDED IN LIBER 224 OF DEEDS, AT PAGE 264 ON 5/14/1931 FOR A TERM OF TEN YEARS AND RECORDED 1/9/1954 IN LIBER 12 MISCELLANEOUS RECORDS PAGE 226 (BLANKET) LONG THEREAFTER AS OIL OR GAS IS PRODUCED FROM THE LANDS LEASED.

224 OF DEEDS, AT PAGE 195 ON 5/14/1931 FOR A TERM OF TEN YEARS AND

H. WORKMAN BY ASSIGNMENT OF LEASE RECORDED 8/5/1933 IN LIBER 232 OF DEEDS, PAGE 451 (BLANKET IN NATURE). TERMS, COVENANTS, CONDITIONS AND AGREEMENTS CONTAINED IN AN UNRECORDED LEASE MADE BY AND BETWEEN HENRY THOMPSON, LESSOR, AND IOHNATHAN BOTHWELL AND CHARLES SOBERS, LESSEE, REFERRED TO IN THE DEED AS SET FORTH BELOW. WITH REGARD THERETO: DEED BY AND BETWEEN HENRY THOMPSON AND HARIET S. THOMPSON, WIFE OF HENRY THOMPSON AND

AND ROYALTY AND RENTAL PAID BY LESSEE THEREFOR. AS ASSIGNED TO WILLIAM

ALBERT H. THOMPSON, DATED 9/12/1892 AND RECORDED ON 9/30/1892 IN (AS)

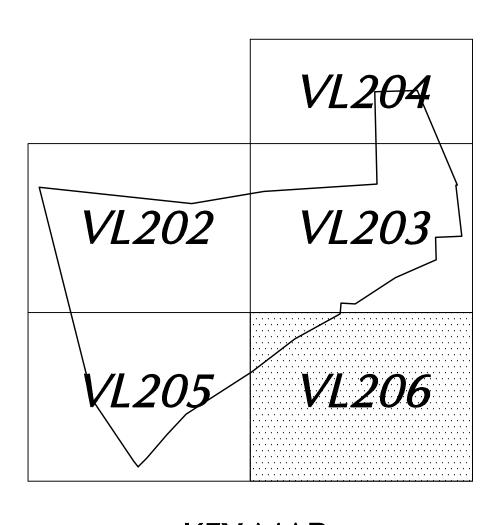
- LIBER 139 OF DEEDS, PAGE 366 (BLANKET IN NATURE). LEASE GIVEN BY LEHIGH VALLEY RAILROAD COMPANY, LESSOR, TO DERK BUNK AND SUSIE BUNK, LESSEE, DATED 5/5/1950 AND ASSIGNMENT OF LEASE FROM LEHIGH VALLEY RAILROAD COMPANY TO NEW YORK STATE ELECTRIC AND GAS CORPORATION DATED 6/20/1952. COLLECTIVELY RECORDED ON 7/5/1952 IN LIBER 350 CP 423 TOGETHER WITH THE RIGHT TO USE A DRIVEWAY SHOWN ON A MAP ENTITLED "LEHIGH VALLEY RAILROAD BUFFALO DIVISION A&I BRANCH MAP"
- (SHOWN ON SURVEY). TERMS, COVENANTS, CONDITIONS AND AGREEMENTS CONTAINED IN A MEMORANDUM OF LEASE (COMPANY TO AGENCY) MADE BY AND BETWEEN AES ASTERN ENERGY, L.P., LÈSSOR, AND TOMPKINS COUNTY INDUSTRIAI DEVELOPMENT AGENCY, LESSEE, A MEMORANDUM OF WHICH DATED AS OF 2/27/2009 WAS RECORDED ON 3/6/2009 IN (AS) INSTRUMENT NO. 538683-001 TERM COMMENCED 2/27/2009 AND TERMINATES 2/1/2029, NO EXTENSIONS OR RENEWALS) (BLANKET IN NATURE). WITH REGARD THERETO: (A) MEMORANDUM OF AMENDED AND RESTATED LEASE (COMPANY TO AGENCY) MADE BY AND BETWEEN AES EASTERN ENERGY, L.P. AND TOMPKINS COUNTY INDUSTRIAL DEVELOPMENT AGENCY DATED AS OF 6/1/2012 AND RECORDED ON 7/16/2012 IN (AS)

INSTRUMENT NO. 594334-002 (BLANKET IN NATURE).

TERMS, COVENANTS, CONDITIONS AND AGREEMENTS CONTAINED IN A MEMORANDUM OF LEASEBACK (AGENCY TO COMPANY) MADE BY AND BETWEEN TOMPKINS COUNTY INDUSTRIAL DEVELOPMENT AGENCY . LESSOR. AND AES EASTERN ENERGY, L.P., LESSEE, A MEMORANDUM OF WHICH DATED AS OF 2/27/2009 WAS RECORDED ON 3/6/2009 IN (AS) INSTRUMENT NO. 538683-002 TERM COMMENCED 2/27/2009 AND TERMINATES 2/1/2029, NO EXTENSIONS OR RENEWALS). WITH REGARD THERETO: (A) MEMORANDUM OF AMENDED AND RESTATED LEASEBACK (AGENCY TO COMPANY) MADE BY AND BETWEEN TOMPKINS COUNTY INDUSTRIAL DEVELOPMENT AGENCY AND AES EASTERN ENERGY, L.P. DATED AS OF 6/1/2012 AND RECORDED ON 7/16/2012 IN (AS) INSTRUMENT NO. 594334-003 (BLANKET IN NATURE).

PROJECT LOCATION MAP

SCALE: N.T.S.



KEY MAP

LEGEND OF SYMBOLS & ABBREVIATIONS — S — — SANITARY LINE ** - AREA LIGHT - SIGNAL POLE — ANCHOR POLE - MANHOLE (DRAINAGE) ______ C _____ ___ CABLE TV LINE ── MANHOLE (SANITARY SEWER) [®] MANHOLE (WATER) MANHOLE (NATURAL GAS) MANHOLE (TELEPHONE) - MANHOLE (FORCE MAIN) BROKEN WHITE STRIPE GUIDE RAIL(TYPE AS NOTE — MANHOLE (UNKNOWN UTILI) EINFORCED CONCRETE PIPE ** * WRE FENCE --- GAS VALVE Omm CATCH BASIN — — — — EASEMENT LINE

SUBSTATION PARCEL

— PROPERTY LINE

CE - RIGHT-OF-WAY LINE

	LINE	BEARING	DISTANCE
	L1	N 18°29'05" W	120.43'
	L2	N 71°30'56" E	24.00°
	L3	N 18°58'53" E	<i>50.72</i> °
	L4	N 71°36'37" E	124.62'
	L5	N 34°07'08" E	<i>34.78</i> '
	L6	N 18°14'33" W	<i>62.67</i> '
	L7	S 71°55'10" W	<i>38.37</i> '
	L8	N 18°11'46" W	121.12'
	L9	N 72°09'34" E	48.83°
	L10	N 18°31'38" W	60.86'
	L11	N 71°55'06" E	<i>251.15</i> '
	L12	S 18°11'28" E	<i>357.80</i> ′
	L13	S 71°48'12" W	244.57'
	L14	S 18°05'44" E	<i>68.93</i> '
	L15	S 71°50'49" W	222.67'

ANGAN Landscape Architecture, and Geology, D.P.C.

One North Broadway, Suite 910 White Plains, NY 10601

CAYUGA SOLAR **PROJECT** TAX MAP NO(S).

ALTA/NSPS LAND

TITLE SURVEY

190091601 **NOVEMBER 2, 2023** rawn By **KFC** Checked By

VL206

Drawing No.

Date Description Revisions

: 914.323.7400 F: 914.323.7401 www.langan.com

11.-1-3.212-3.212 & 3.23 **TOWN OF LANSING** TOMPKINS COUNTY **NEW YORK**

Date: 7/26/2024 Time: 12:56 User: mchudnow Style Table: Langan.stb Layout: VL206 Document Code: 190091601-0401-VL101-0201

Section 3 Site Plan and Elevations

CONCEPTUAL DESIGN

LAKE HAWKEYE

SHEET INDEX							
SHEET NUMBER	SHEET TITLE						
C0	EXISTING SITE PLAN						
C1	PROPOSED SITE PLAN						
C2	CONCEPTUAL UTILITY PLAN						
C3	ENLARGED PLAN 1						
C4	ENLARGED PLAN 2						
C5	ENLARGED PLAN 3						





TERAWULF, INC.

TOWN OF LANSING
TOMPKINS COUNTY, NEW YORK

PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 10/23/2025

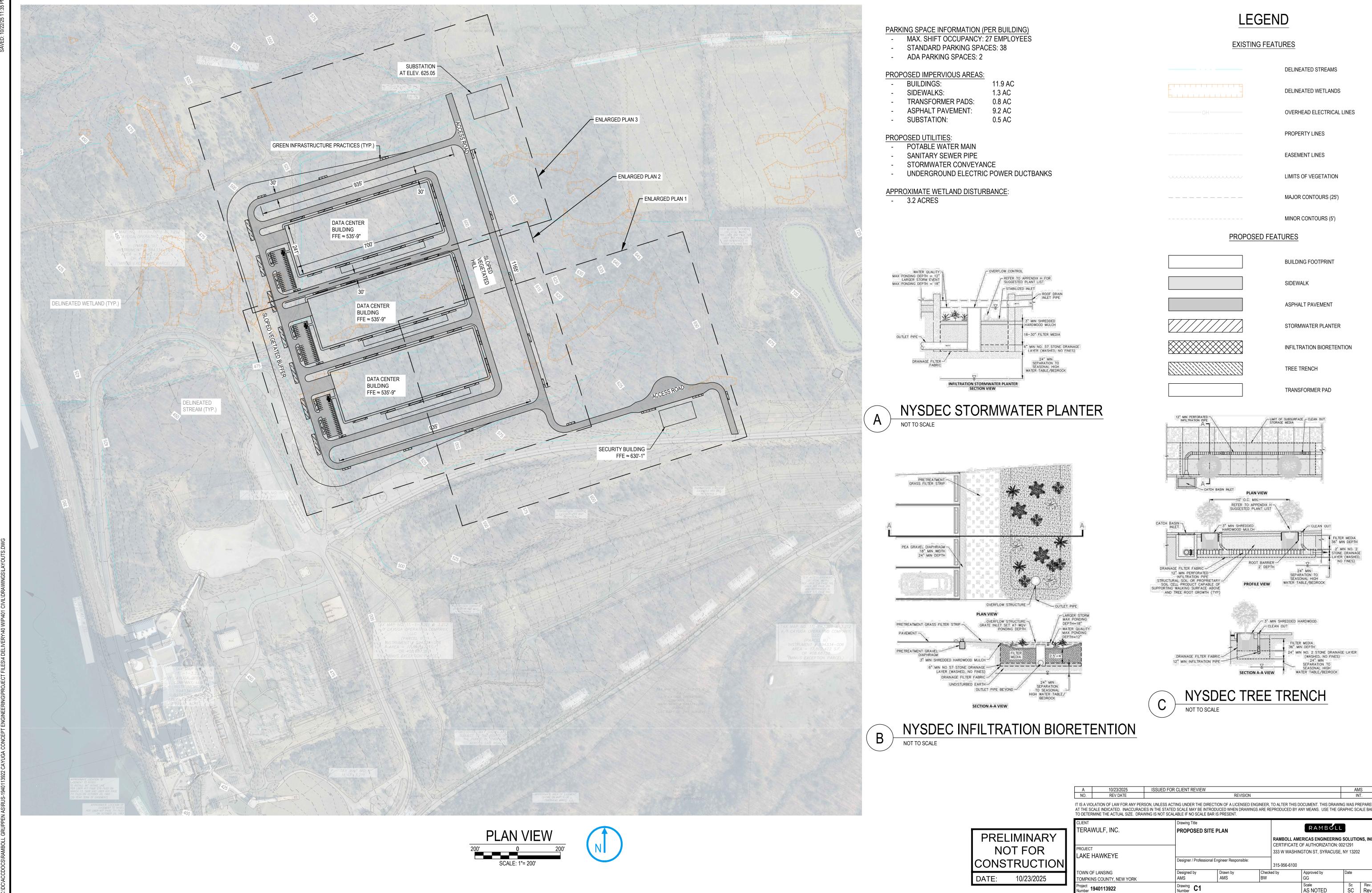


RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

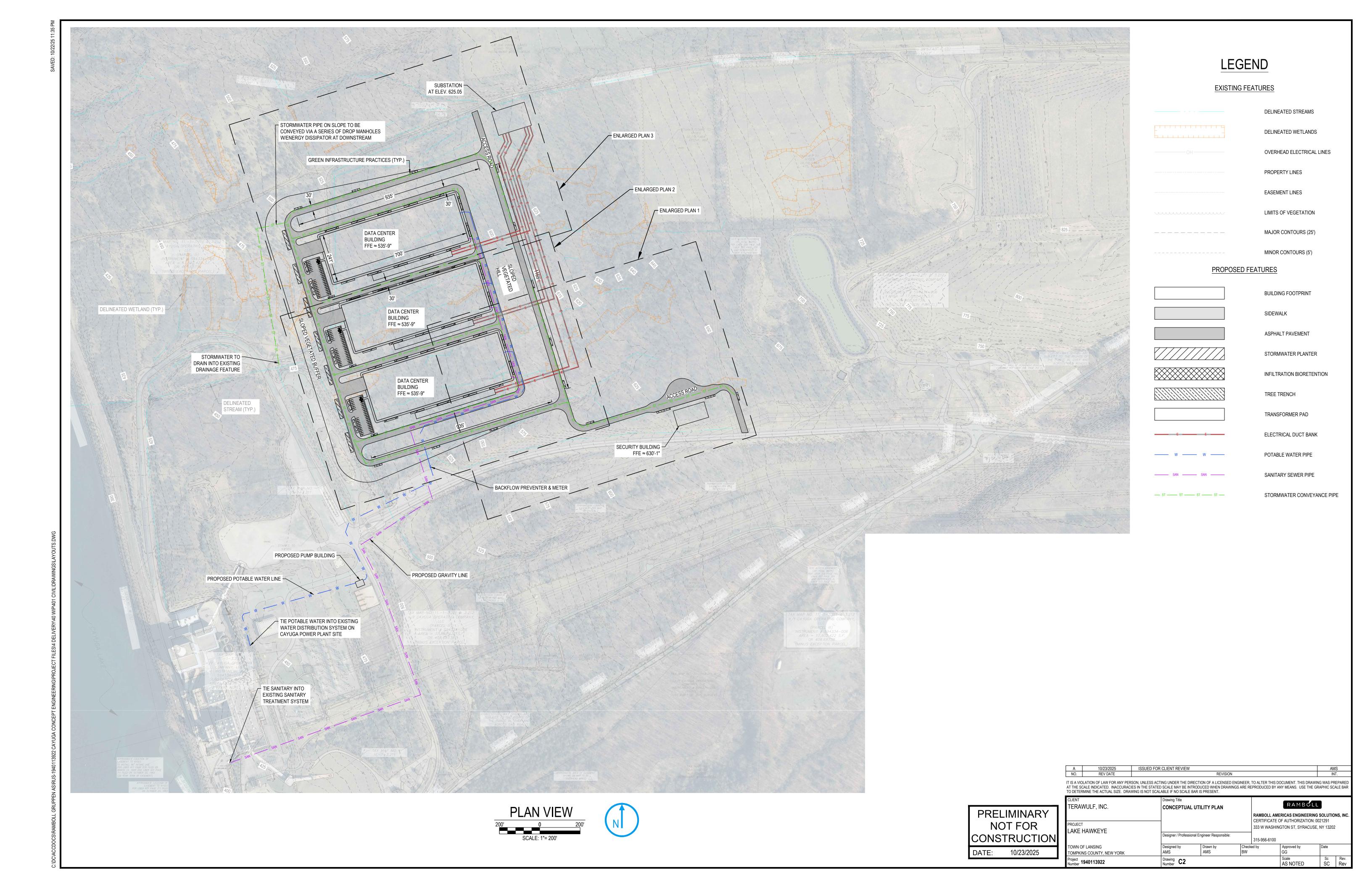
DELINEATED STREAMS DELINEATED WETLANDS OVERHEAD ELECTRICAL LINES LIMITS OF VEGETATION MAJOR CONTOURS (25')

10/23/2025

ETERMINE THE ACTUAL SIZE. DRAWING IS NOT SCALABLE IF NO SCALE DAY IS PRESENT.								
ent FRAWULF, INC.	Drawing Title EXISTING SITE PLAN			RAMBOLL				
					RICAS ENGINEERING S		IS, INC.	
OJECT KE HAWKEYE				333 W WASHINGTON ST, SYRACUSE, NY 13202				
INC HAVVICETE	Designer / Professional Engineer Responsible:			315-956-6100				
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RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC





A 10/23/2025 ISSUED FOR CLIENT REVIEW AMS

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CLIENT

Drawing Title

ENLARGED PLAN 1

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ULF, INC.				RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC. CERTIFICATE OF AUTHORIZATION: 0021291				
INE THE ACTUAL SIZE. DRAWING IS NOT SCALABLE IF NO SCALE BAR IS PRESENT.								

LEGEND

EXISTING FEATURES

PROPOSED FEATURES

____E___E___

_____ SAN _____ SAN ____

— ST — ST — ST —

DELINEATED STREAMS

DELINEATED WETLANDS

PROPERTY LINES

EASEMENT LINES

LIMITS OF VEGETATION

MAJOR CONTOURS (25')

MINOR CONTOURS (5')

BUILDING FOOTPRINT

ASPHALT PAVEMENT

STORMWATER PLANTER

TREE TRENCH

TRANSFORMER PAD

ELECTRICAL DUCT BANK

POTABLE WATER PIPE

SANITARY SEWER PIPE

STORMWATER CONVEYANCE PIPE

INFILTRATION BIORETENTION

SIDEWALK

OVERHEAD ELECTRICAL LINES

DATE:

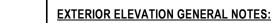
TOMPKINS COUNTY, NEW YORK

AS NOTED

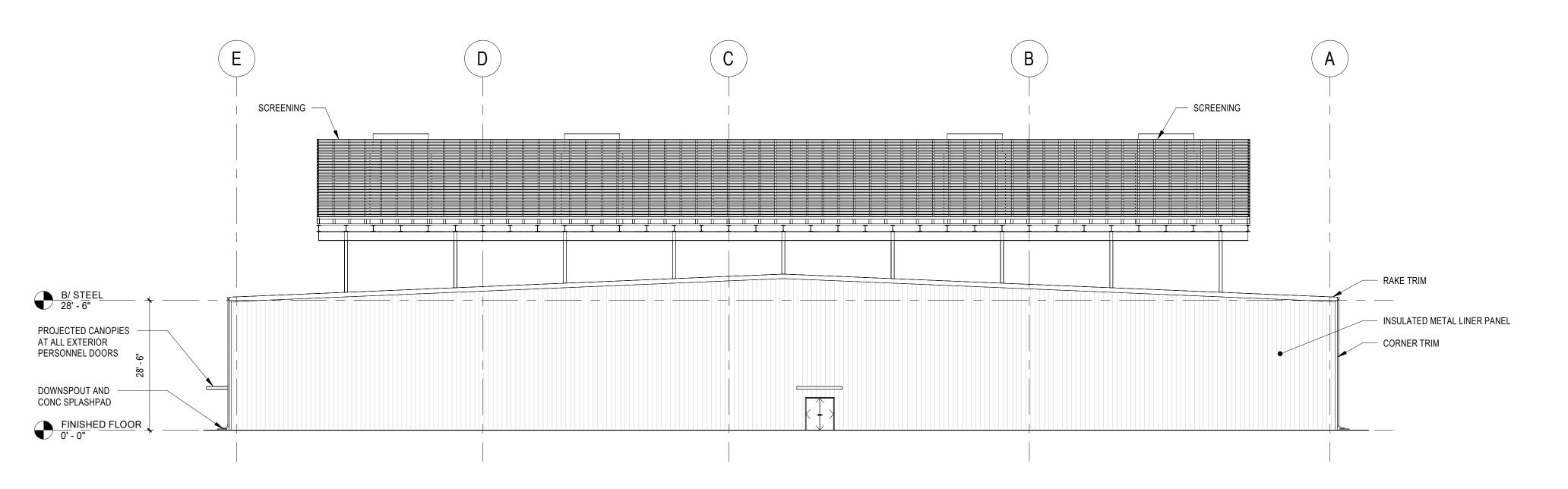
Project Number **1940113922**

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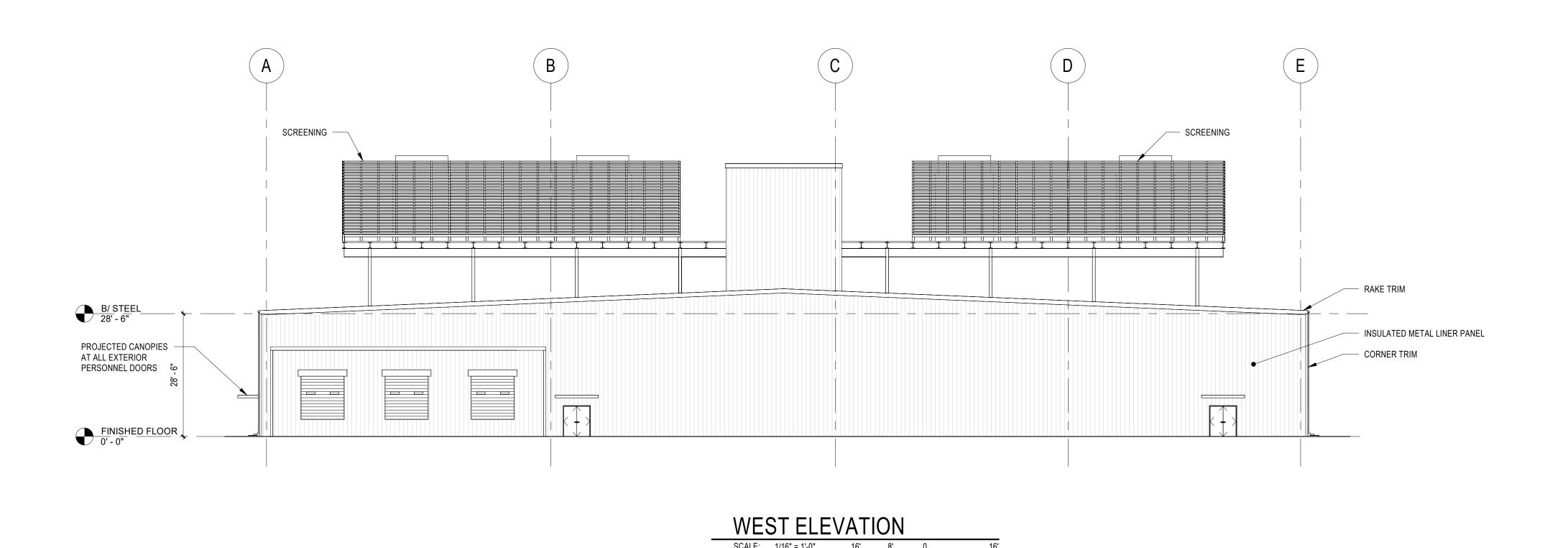
RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC 333 W WASHINGTON ST, SYRACUSE, NY 13202 Scale AS NOTED Drawing C5 Project Number **1940113922**

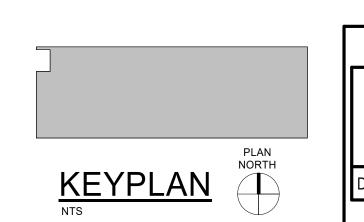


1. WALL ORIENTATION / DIRECTION IS BASED ON PLAN NORTH, REFER TO PLANS FOR FURTHER INFORMATION.

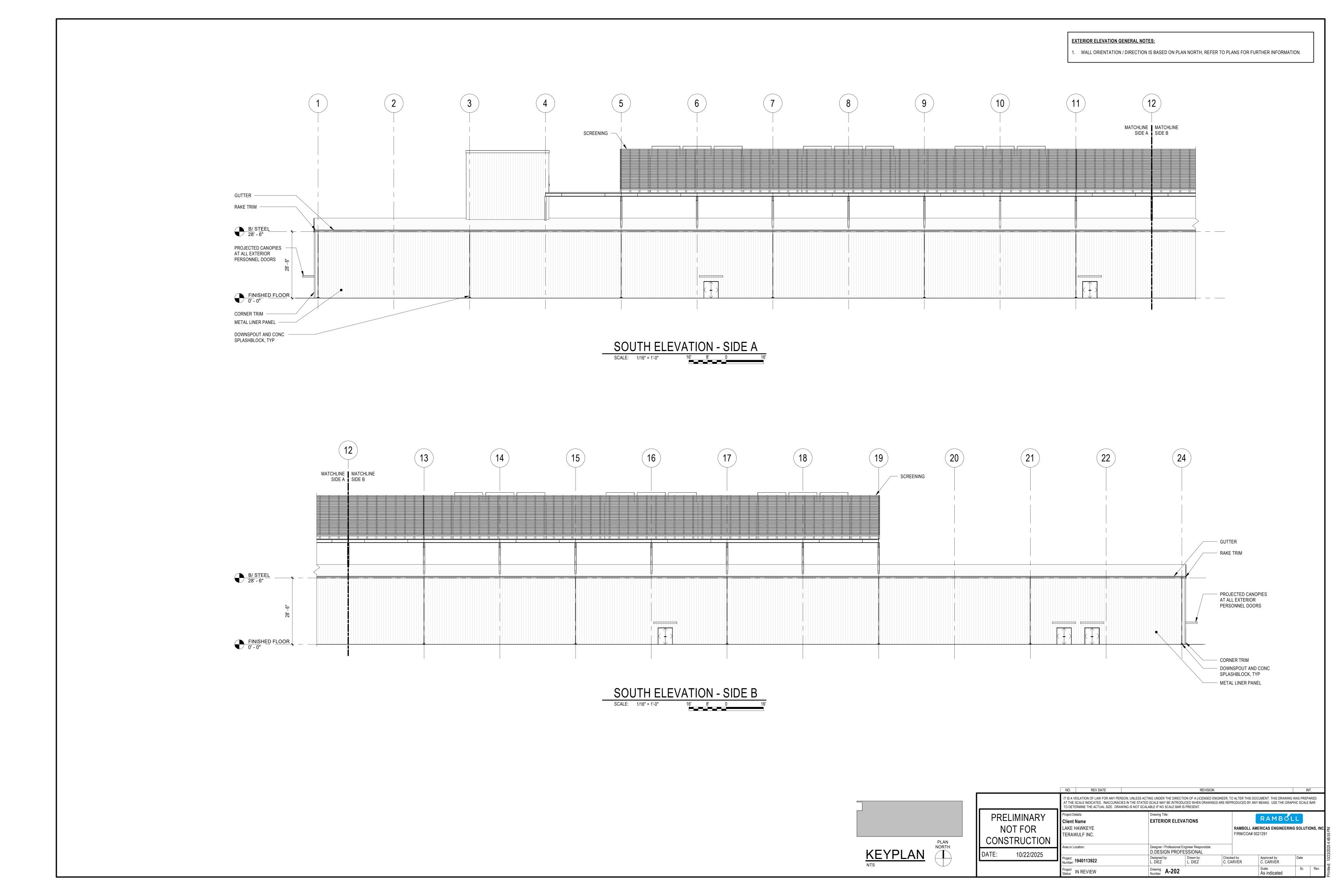


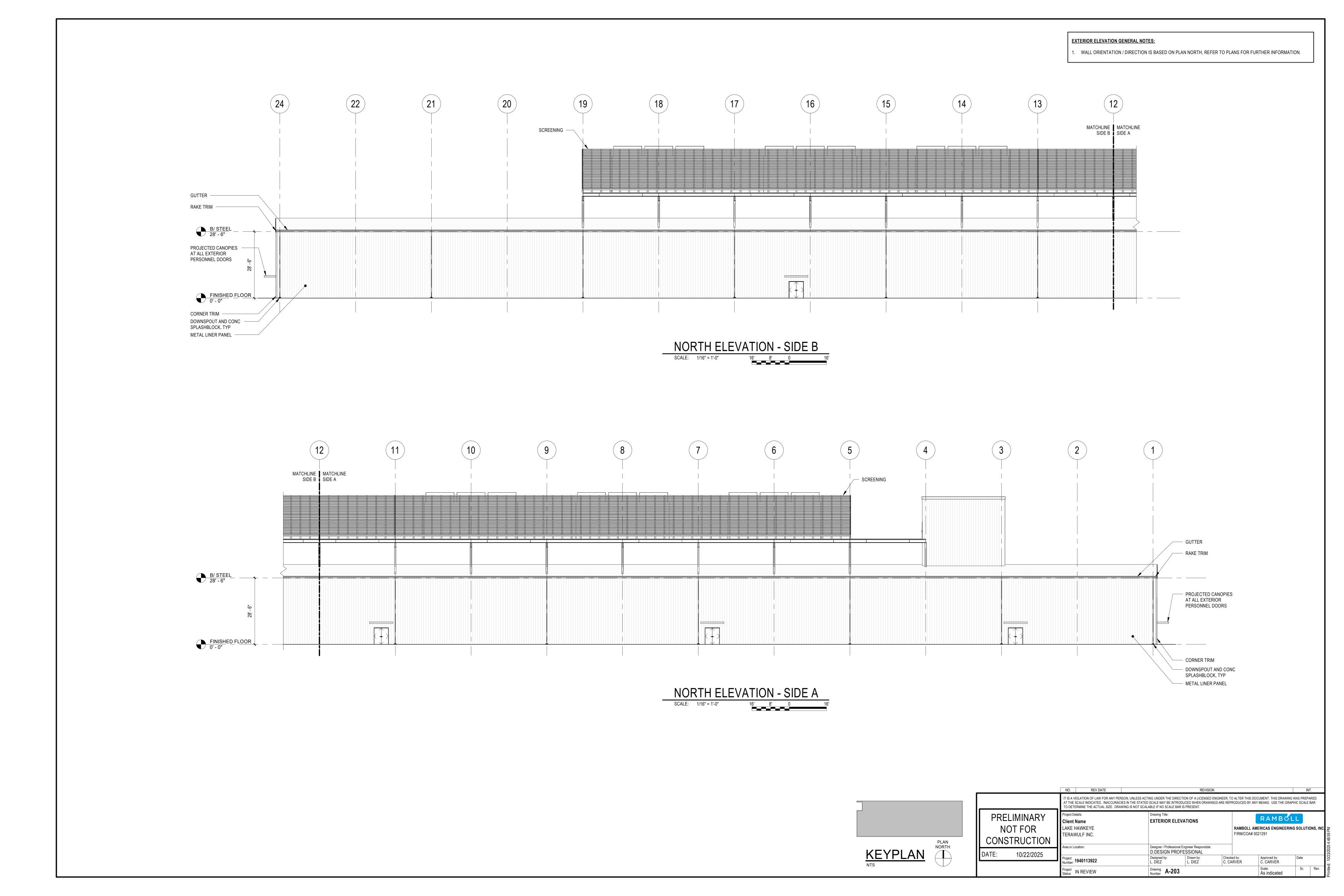
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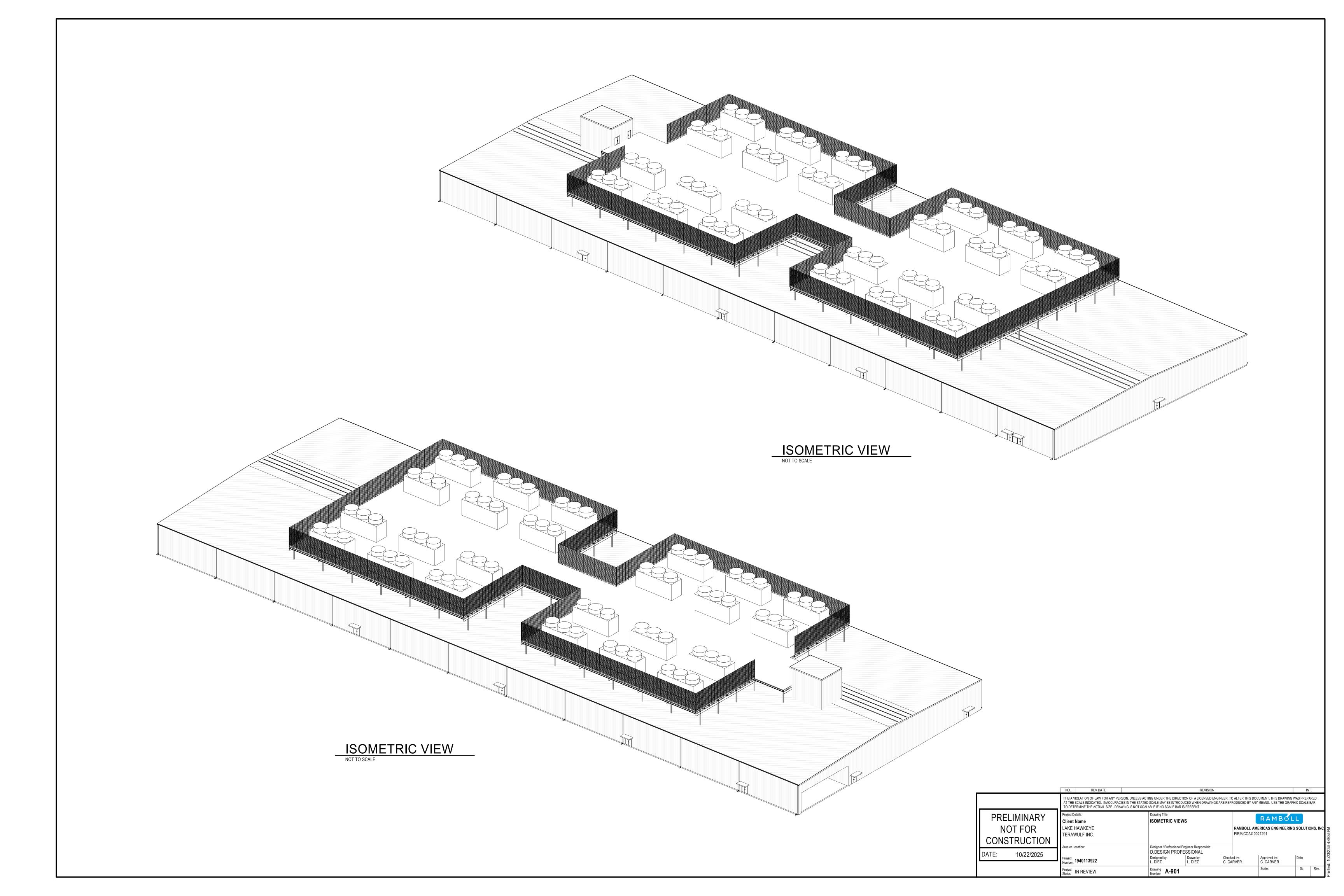


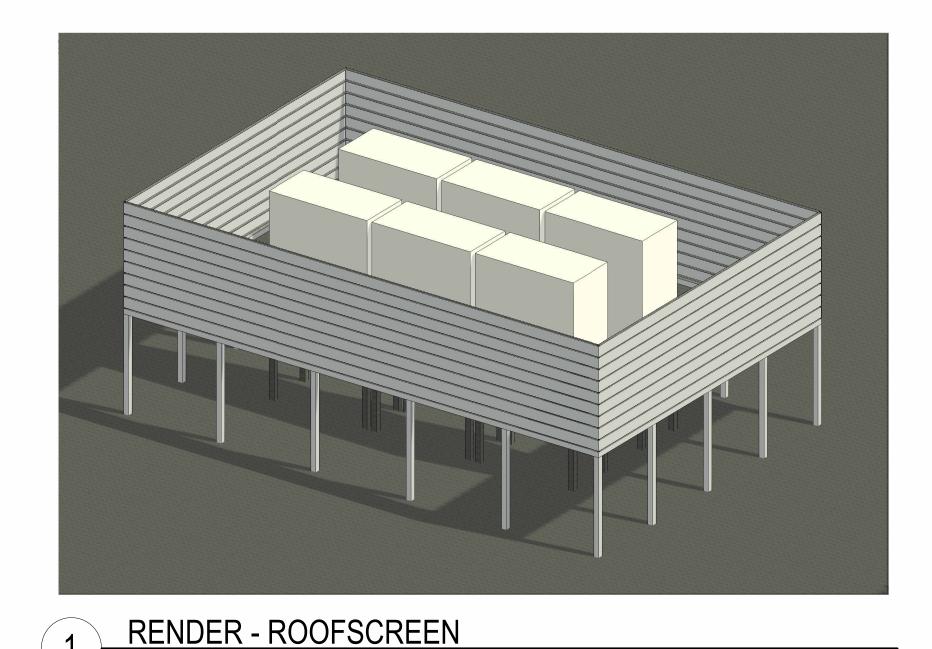


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PRELIMINARY NOT FOR CONSTRUCTION						RAMBOLL RAMBOLL AMERICAS ENGINEERING SOLUTIONS, IN FIRM/COA# 0021291		ONS, INC		
DATE: 10/22/2025	Area or Loo	r Location: Designer / Professional Engineer Responsible: D.DESIGN PROFESSIONAL								
Project Number: 194011		940113922		Designed by: L. DIEZ	Drawn by: L. DIEZ		ed by: ARVER	Approved by: C. CARVER	Date	
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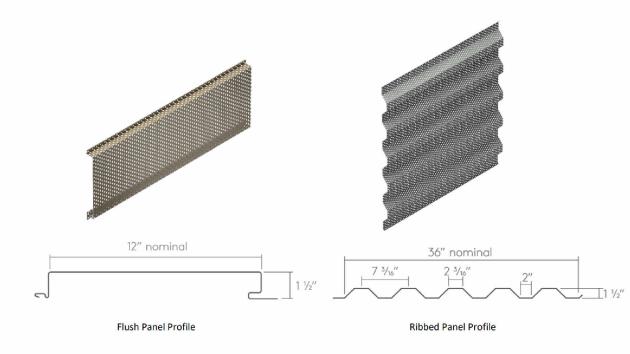


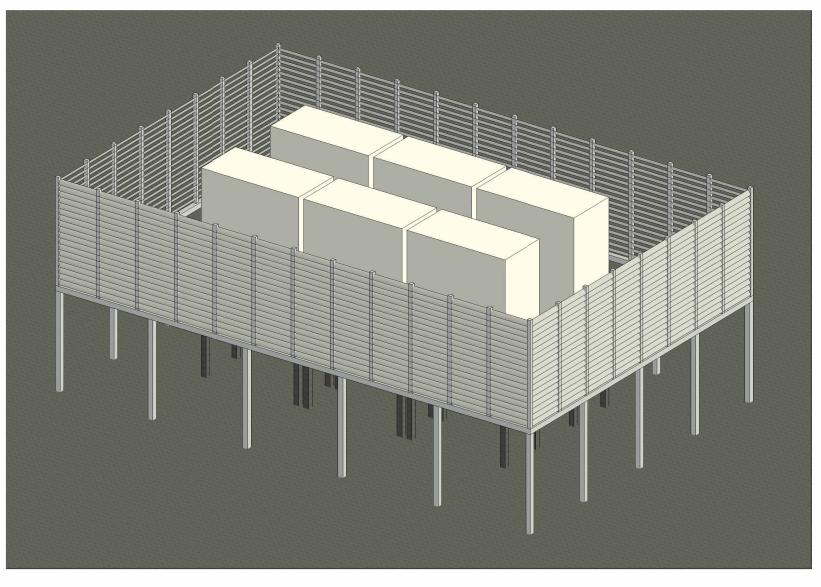




PRODUCT OVERVIEW:

- ADDS ELEMENTS OF TEXTURE AND DEPTH.
- PERFORATED PANELS SIMILAR TO 7.2 RIB AND FLUSH PANELS OFFERED BY ROOFSCREEN.
- THE 40% OPEN AREA PATTERN IS COMPRISED OF 1/8" HOLES @ 3/16" STAGGER.
- OTHER PATTERS AND PROFILES AVAILABLE UPON REQUEST.
- MATERIAL: .40 ALUMINUM STANDARD (OTHER GAUGES AVAILABLE UPON REQUEST).
- LENGTH: UP TO 30'.
- ATTACHMENT: EXPOSED FASTENERS.
- FINISH: PVDF (70% POLYVINLIDENE).
- COLORS: SEE COLOR CHART.
- WARRANTY: 20 YEARS.
- INSTALLATION: ORIENTED VERTICALLY OR HORIZONTALLY.



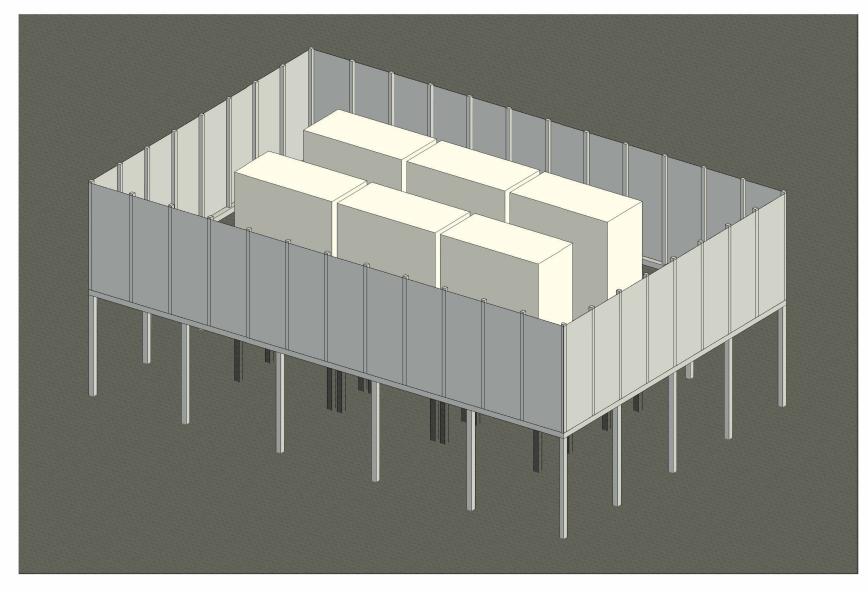


2 RENDER - SHARCHS SCALE:

PRODUCT OVERVIEW:

- OUTRIGGERS: 4" x .25" ALUMINUM FLATBAR (6063-T6 RECTANGULAR PROFILE BLOCKED NOSING
- INFILL: AIR FOIL
 6" x 1" x .080"
 EXTRUDED ALUMINUM (6063-T6)
- FINISH: ARCHITECTURAL POWDER COAT (RAL COLORS)
 (ANODIZED AND KYNAR FINISHES AVAILABLE)
- SITE SPECIFIC ENGINEERING: AVAILABLE UPON REQUEST
- ALL MATERIALS AND WORKMANSHIP ARE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF COMPLETION.
- LENGTH: 72" MAX BETWEEN SUPPORTS
- MAINTENANCE: NONE REQUIRED





3 RENDER - LAWRENCE FABRIC AND METAL STRUCTURES SCALE:

PRODUCT OVERVIEW:

- METAL OPTIONS: SOLID. CORRUGATED. PERFORATED.
- FABRIC OPTIONS: SOLID MESH FABRIC. MESH FABRIC.
- DURABLE MATERIALS INCLUDING STEEL, ALUMINUM, COPPER PAIRED WITH HIGH QUALITY COATINGS TO WITHSTAND HEAT, WIND AND CLIMATE FLUCTUATIONS.
- LONG TERM DURABILTY AND MINIMAL MAINTENANCE.
- IMPROVED AIRFLOW AND WIND RESISTANCE
- INCREASED NOISE REDUCTION.
- COMPLEMENT ARCHITECTURAL FACADE.
- LONG TERM WARRANTIES AND PROTECTION.



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Section 4 Wetland Delineation Assessment





MEMO

Project name Cayuga Concept Engineering (CCE) Wetland Delineation, Lansing, NY

Project no. **1940113922-001**

Client Cayuga Concept Engineering

Memo no. INTERNAL DRAFT

Version

To **File**

From Ron Chiarello, Christopher Nack
Copy to Hunter Alderman, Erik Lanahan

List of Figures

Figure 01 - Site Location

Figure 02 - Delineated Wetlands (Cowardin classification) and Streams

Date November 26, 2024

List of Attachments

Attachment 1 - Wetland Data Forms

Attachment 2 - Wetland Photograph Log

Attachment 3 – Soil Map

Attachment 4 - NYS Freshwater Wetlands and National Wetland Inventory

mapping

Attachment 5 - Floodplain Map

Ramboll

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Syracuse, NY 13202

USA

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Ramboll performed a wetland delineation in June 2025 for the Cayuga Operating Company facility at 228 Cayuga Dr, Lansing, NY 14882 (**Figure 01**). The Site is approximately 194.1± acres (See **Figure 01**) and consists of inactive agricultural land, industrial property, and undeveloped woodland. The Site was evaluated for the potential presence of wetlands and waters, as regulated by the U.S Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC). The delineation was conducted by Ramboll wetland biologists trained in wetlands identification and delineation, between June 5 and June 13, 2025.

Methodology

The USACE and U.S. Environmental Protection Agency (USEPA) jointly define wetlands as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions [33 Code of Federal Regulation (CFR) 328.3(b), 40 CFR 230.3(t)]. Environmental criteria for wetlands, as defined by the USACE, include:

the dominant vegetation is hydrophytic (water tolerant).

the soils present have been classified as hydric or possess reducing soil characteristics.

the area is either permanently or periodically inundated at mean water depths less than or equal to 6.6 feet, or the soil is permanently or periodically saturated to the surface during the growing season.

To make a positive wetland determination, a minimum of one wetland indicator from each criterion (vegetation, soil and hydrology) must be found. The Routine Determination Method outlined in USACE (1987) was used in conjunction with procedures outlined in the Regional Supplement to assess the presence/absence of wetlands at the proposed project location.

Routine determinations involve rapidly applied methods that result in sufficient qualitative data for identifying wetland and non-wetland areas. The Routine Determination Method consists of a combination of off-site data review and on-site investigation. Off-site activities included an evaluation of available information regarding environmental conditions at the proposed project location. On-site activities consisted of collecting the field data required to identify and delineate wetland boundaries. Field data were gathered at sampling points chosen in potential wetland areas as well as in upland

The wetlands survey efforts for this project included the following:

A desktop review of the Site using information obtained from the United States Fish and Wildlife Service (USFWS), United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey, Federal Emergency Management Agency (FEMA) and NYSDEC.

A site reconnaissance survey for the presence or absence of natural resources of concern (wetlands, waters of the United States, floodplains) and delineation of wetlands that meet the federal criteria outlined in USACE 1987 and 2012.

Desktop Review

Data and information obtained as part of the desktop review included the following:



National Wetland Inventory (NWI) Maps, as presented in the NWI Wetland Mapper.

https://www.fws.gov/wetlands/Data/Mapper.html (USFWS 2024)

New York State Freshwater Wetland (NYSFW) Maps and mapped streams, as presented in the NYSDEC Environmental Resource Mapper (ERM). http://www.dec.ny.gov/gis/erm/ (NYSDEC 2024)

Custom Web Soil Survey obtained from the U.S. Department of Agriculture National Resources Conservation Service (USDA-NRCS). http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (USDA-NRCS 2024).

FEMA Flood Rate Insurance Map (FIRM) for Clay, NY.

https://msc.fema.gov/portal/search#searchresultsanchor (FEMA 2024)

Historical Aerial Photograph Imagery obtained from United States Geological Survey (USGS) Earth Explorer (USGS 2024) https://eathexplorer.usgs.gov/.

Based on the review of the NWI Mapping for the Site (**Attachment 4**), one riverine habitat (R4SBC) is located on the northwest corner of the property. Based on the review of the NYSDEC ERM (**Attachment 4**), two streams were identified within the Site boundaries:

- Tributary of Cayuga Lake, Water Index Number Ont. 66-12-P 296 (Trib. 45), a NYS Class C stream. Trib. 45 corresponds with the NWI riverine habitat (R4SBC) noted above.
- Tributary of Cayuga Lake, Water Index Number Ont. 66-12-P 296 (Trib. 45a), a NYS Class C stream.

Based on the review of the NYSDEC ERM (**Attachment 4**), no previously mapped wetlands were located on the Site. However, the Informational Freshwater Wetland Mapping layer of the ERM indicates 31 informational wetlands on the Site. The Informational Freshwater Wetland Mapping layer is intended to be used for informational purposes in identifying the general location and extent of potential freshwater wetlands. As mapped, informational wetlands do not represent state of federally regulated wetlands. However, informational wetlands require further desktop and field investigation to determine jurisdictional standing

Based on the FEMA FIRM mapping for the Site (**Attachment 5**), the Site is not located within a 100- or 500-year mapped flood zone.

Review of mapped soil descriptions from the Web Soil Survey (USDA-NRCS 2024) indicated that soils within the Site were dominated by Hudson, Hudson-Cayuga and Ovid soils, which are non-hydric. See **Attachment 3** for a complete list of soils identified within the Site.

On-Site Investigation

Ramboll biologists performed the field activities associated with wetland presence/absence survey between June 5 and June 13, 2025. On-site activities included the evaluation of vegetative communities, the soil substrate, and hydrologic characteristics to identify the presence/absence of wetlands. Field data were gathered at several locations within the parcel boundaries (see **Figure 02**). Wetlands were identified based on the presence of each of the following three parameters pursuant to the USACE methodology: hydric soils; a vegetative community dominated by hydrophytes; and inundated or saturated soil conditions, and/or indicators of hydrologic patterns.



Vegetative, soil, and hydrologic conditions were recorded on Wetland Data Forms for the USACE-delineation methodology specified in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. These forms are included as **Attachment 1**. A description of the vegetative, soil and hydrologic conditions is provided in the following sections and photograph logs documenting field activities are included as **Attachment 2**.

Soils

Observed soil characteristics were compared to the mapped soil descriptions from the Web Soil Survey (USDA-NRCS 2024) and evaluated for hydric soil indicators as described in USACE (1987 and 2012). Soil physical characteristics were evaluated during the investigation by excavating to a depth needed to evaluate potential hydric soil indicators below ground surface (generally 18 inches, unless refusal occurred). Soil color was evaluated using Munsell Soil Color Charts (Munsell 2000). Soils that exhibit hydric soil characteristics, such as low chroma colors and/or evidence of reducing conditions (e.g., presence of redox concentrations/depletions or gleying), met the hydric soil criterion per USACE (1987 and 2012).

Site soils observed during excavations generally consisted of variable depths of loamy clay with and without gravel/shale. Soils from excavations within wetlands exhibited conditions consistent with depleted matrix criteria within their profiles. Characteristics observed at each sampling point are summarized on the Wetland Data Forms included as **Attachment 1**.

Vegetation

The criterion for wetland vegetation is a dominance of hydrophytic species. A species is considered hydrophytic per USACE (1987 and 2012) if it is classified per the National Wetland Plant List (USACE 2022) as obligate (OBL), facultative wet (FACW) or facultative (FAC). A dominance of hydrophytes requires that more than 50% of the vegetative species in an area are classified as hydrophytic.

In accordance with USACE (1987 and 2012), observations of vegetation focus on dominant vegetative species in four categories: trees (minimum 3-inch diameter at breast height), saplings/shrubs (less than 3-inch diameter and greater than 3.28 feet tall), herbs and woody vines. Observed vegetative species and their associated indicator statuses are listed in the Wetland Data Forms (**Attachment 1**). The Site wetland vegetation ranged from emergent species (grasses, wildflowers and sedges), shrub species (dogwoods, buckthorn and tree samplings) and trees (ash, elms and hickories).

Hydrology

The Site was examined for field indicators of wetland hydrology. According to USACE (1987 and 2012), wetland hydrology consists of permanent or periodic inundation, drainage patterns or soil saturation to the surface during the growing season. If these indicators were present within the sampling points, the hydrology criterion for wetlands was met.

Generally, the Site's wetlands receive hydrologic input from overland flow from adjacent upland areas. Hydrology moved generally from east to west, towards Cayuga Lake. The Site is not within a 100- or 500-year mapped flood zone. Hydrologic indicators observed within the sampling points were recorded on Wetland Data Forms (**Attachment 1**). As previously discussed, two tributaries to Cayuga Lake were identified during the desktop review, with flows generally to the west. Tributary 45 (CCE-PS1) was delineated at the northwest corner of the Site as shown in **Figure 02**. Tributary 45a is mapped within a previously disturbed area and no channel associated with the tributary was identified during the delineation efforts. Two perennial, 4 intermittent and 18 ephemeral streams were identified within the



site boundaries with flow generally to the west towards Cayuga Lake (Figure 02). In addition, 8 roadside ditches were identified. Total linear feet for each stream and ditch feature delineated are provided in **Table 1**.

Table 1. Total linear feet (If) for each stream delineation and total If for each stream type within the Site.

STREAM ID	EPHEMERAL LF	INTERMITTENT LF	PERENNIAL LF
CCE-EP1	532.89		
CCE-EP1A	11.61		
CCE-EP2	225.91		
CCE-EP3	296.92		
CCE-EP4	835.01		
CCE-EP5	859.64		
CCE-EP6	1,835.63		
CCE-EP7	439.68		
CCE-EP8	1,020.73		
CCE-EP9	279.82		
CCE-EP10	176.79		
CCE-EP11	873.69		
CCE-EP12	794.50		
CCE-EP13	1,728.08		
CCE-EP14	1,056.80		
CCE-EP15	654.78		
CCE-EP16	594.42		
CCE-EP17	294.16		
CCE-EP18	<mark>294</mark> .16		
CCE-IS1		729.98	
CCE-IS2		1,133.57	
CCE-IS2		1,042.44	
CCE-PS1			173.74
CCE-PS2			
TOTAL	12,511.05	2,905.99	173.74



Observed Wetlands

Sampling points were identified as wetland when all three wetland criteria (hydric soils, dominance of hydrophytes and wetland hydrology) were met in the area represented. The wetland boundary and sampling point locations were surveyed by Ramboll using a hand-held Global Positioning System (GPS) unit with points subsequently corrected to provide sub-meter accuracy. The delineated wetland boundaries were flagged in the field with flagging tape and recorded digitally using the sub-meter accurate GPS. Electronic files of these points are available for use during field verification.

Figure 01 illustrates the limits of wetland boundaries identified within the Site. 24 wetland habitats (palustrine forested, or PFO; palustrine scrub-shrub or PSS; palustrine emergent, or PEM) were identified (see Figure 02). The total acreage of wetland identified within the Site corridor is 9.83 acres (Table 2). In addition to the delineated wetlands, 4 wetland areas identified on the NYSDEC'S ERM information wetland layer were identified but not delineated. These wetlands are indicated in Figure 02.

Table 2. Total and cover type acreages for each wetland delineation and total wetland acreage withing the Site.

tne Site.				
WETLAND	ACREAGE	PEM	PSS ACREAGE	PFO
W1	0.03	ACREAGE 	ACKEAGE 	ACREAGE 0.03
W2	0.02			0.02
W3	0.05		0.05	
W4	0.05		0.05	
W5	1.06	0.70	0.36	
W6	0.02	0.02		
W7	0.05		0.05	
W8	0.03			0.03
W9	0.17		0.17	
W10	0.01		0.01	
W11	0.04		0.04	
W12	1.37		0.77	0.60
W13	0.36	0.36		
W14	0.18		0.18	
W15	0.03		0.03	
W16	0.06		0.06	
W17	0.10		0.10	
W18	0.07		0.07	
W19	0.71	0.04	0.67	
W20	0.18		0.18	
W21	0.45		0.45	
W22	0.12	0.12		
W23	1.32	1.32		
W30	3.36	1.64	1.71	



TOTAL	9.83	4.20	4.95	0.68

The following is a brief description of the species and general hydrologic conditions associated with each wetland habitat delineated within the Site:

W1–W1 (**Figure 02**) is 0.03 acres and is located on the northeast corner of the Site, north of CCE-EP1. W1 consists of PFO habitat (**Figure 02**). Hydrologic flow of W1 is generally to the south towards CCE-EP1, which ultimately flows to Cayuga Lake. Species associated with W1 habitats include (soil boring – SB-CCE-01):

Rhamnus cathartica - European Buckthorn - FAC
Tilia americana - American Basswood - FACU
Carya ovata - Shag-Bark Hickory - FACU
Impatiens capensis - Spotted Touch-Me-Not - FACW

W2 – W2 (**Figure 02**) is 0.02 acres and is located northeast portion of the Site, south of CCE-EP1. W2 consists of PFO habitat (**Figure 02**). Hydrologic flow of W2 is generally to the north towards CCE-EP1, which ultimately flows to Cayuga Lake. Species associated with W2 habitats include (soil boring – SB-CCE-02):

Rhamnus cathartica - European Buckthorn - FAC Carya ovata - Shag-Bark Hickory - FACU Equisetum arvense - Field Horsetail - FAC

W3 – W3 (**Figure 02**) is 0.05 acres and is a linear wetland located in the northern portion of the Site. W3 consists of PSS habitats (**Figure 02**) and is located in the downstream portion of Ditch 2. Hydrologic flow of W3 is generally to the west, though the wetland appears to be isolated. Species associated with W3 habitats include (soil boring – SB-CCE-04):

Acer rubrum - Red Maple - FAC Quercus rubra - Northern Red Oak - FACU Rhamnus cathartica - European Buckthorn - FAC

W4 – W4 (**Figure 02**) is 0.05 acres and is a linear wetland located in the northern portion of the Site. W4 consists of PSS habitats (**Figure 02**) and is located at the west end of Ditch 3. Hydrologic flow of W4 is generally to the west, though the wetland appears to be isolated. Species associated with W4 habitats include (soil boring – SB-CCE-05):

Juglans nigra - Black Walnut - FACU
Rhamnus cathartica - European Buckthorn - FAC
Teucrium canadense - American Germander - FACW

W5 – W5 (**Figure 02**) is 1.06 acres and is located in the western portion of the Site. W5 consists of 0.70 acres of PEM and 0.36 acres of PSS habitats (**Figure 02**). Hydrologic flow of W5 is generally to the west, discharging to CCE-EP5. Species associated with W5 habitats include (soil boring – SB-CCE-11):

Agrostis gigantea - Black Bent - FACW



Scirpus atrovirens - Dark-Green Bulrush - OBL

W6 – W6 (**Figure 02**) is 0.02 acres and is located in the western portion of the Site downstream of W5 on CCE-EP5. W6 consists of 0.02 acres of PEM habitat (**Figure 02**). Hydrologic flow of W6 is generally to the west, discharging to CCE-EP5. Species associated with W6 habitats include (soil boring – SB-CCE-07):

Impatiens capensis - Spotted Touch-Me-Not - FACW
Lycopus americanus - Cut-Leaf Water-Horehound - OBL
Lemna minor - Common Duckweed - OBL
Rhamnus cathartica - European Buckthorn - FAC

W7 – W7 (**Figure 02**) is 0.02 acres and is located in the western portion of the Site downstream of W5 on the edge of CCE-EP5. W7 consists of 0.05 acres of PSS habitat (**Figure 02**). Hydrologic flow of W7 is generally to the north, discharging to CCE-EP5. Wetland area appears to be impacted from previous activities. Species associated with W7 habitats include (soil boring – SB-CCE-08):

Rhamnus cathartica - European Buckthorn - FAC Bidens frondosa - Devil's-Pitchfork - FACW Solidago rugosa - Wrinkle-Leaf Goldenrod - FAC

W8 – W8 (**Figure 02**) is 0.03 acres and is located in the western portion of the Site north of CCE-EP5. W8 consists of 0.02 acres of PFO habitat (**Figure 02**). Hydrologic flow of W8 is generally to the west. W8 is positioned at the base of a berm and appears to be isolated. Species associated with W8 habitats include (soil boring – SB-CCE-09):

Salix nigra - Black Willow - OBL Rhamnus cathartica - European Buckthorn - FAC

W9 – W9 (**Figure 02**) is 0.17 acres and is located in the southeastern portion of the Site and consists of PSS habitat (**Figure 02**). Hydrologic flow of W9 is generally to the west where it flows into CCE-EP6. Species associated with W9 habitats include (soil boring – SB-CCE-13):

Fraxinus pennsylvanica - Green Ash - FACW Rhamnus cathartica - European Buckthorn - FAC Onoclea sensibilis - Sensitive Fern - FACW Equisetum arvense - Field Horsetail - FAC

W10 & W11 – W10 (**Figure 02**) is 0.01 acres and W11 is 0.04 acres. These wetlands are located along CCE-EP8. Both wetlands consist of PSS habitat (**Figure 02**). Hydrologic flow of these wetlands is generally to the west to CCE-EP8. Species associated with these wetland habitats include (soil boring – SB-CCE-14 & SB-CCE-15):

Fraxinus pennsylvanica - Green Ash - FACW Rhamnus cathartica - European Buckthorn - FAC Onoclea sensibilis - Sensitive Fern - FACW



W12 – W12 (**Figure 02**) is 1.37 acres and is located in the eastern portion of the Site at the upstream end of CCE-EP8 and consists of 0.77 acres of PSS and 0.60 acres of PFO habitat (**Figure 02**). Hydrologic flow of W12 is generally to the west where it flows into CCE-EP8. Species associated with W12 habitats include (soil boring – SB-CCE-16):

Fraxinus pennsylvanica - Green Ash - FACW Rhamnus cathartica - European Buckthorn - FAC Onoclea sensibilis - Sensitive Fern - FACW Equisetum arvense - Field Horsetail - FAC

W13 – W13 (**Figure 02**) is 0.36 acres and is located in the central portion of the Site downhill of the terminal end of CCE-EP10 and consists of PEM habitat (**Figure 02**). Hydrologic flow of W13 is generally to the west towards CCE-IS4. Species associated with W13 habitats include (soil boring – SB-CCE-17):

Eleocharis palustris - Common Spike-Rush - OBL Rhamnus cathartica - European Buckthorn - FAC Carex vulpinoidea - Common Fox Sedge - OBL Agrostis gigantea - Black Bent - FACW

W14 & W15– W14 (**Figure 02**) is 0.18 acres and W15 is 0.03 acres. These wetlands are adjacent to CCE-EP11. Both wetlands consist of PSS habitat (**Figure 02**). Hydrologic flow of these wetlands is generally to the south towards CCE-EP11. Species associated with these wetland habitats include (soil boring – SB-CCE-19):

Fraxinus pennsylvanica - Green Ash - FACW Rhamnus cathartica - European Buckthorn - FAC Onoclea sensibilis - Sensitive Fern - FACW

W16 & W17 – W16 (**Figure 02**) is 0.06 acres and W17 is 0.10 acres. W16 is located along CCE-EP12 and W17 is downhill of the terminal point of CCE-EP12. Both wetlands consist of PSS habitat (**Figure 02**). Hydrologic flow of these wetlands is generally to the west towards CCE-IS4. Species associated with these wetland habitats include (soil boring – SB-CCE-20 & SB-CCE-21):

Eleocharis acicularis - Needle Spike-Rush - OBL Rhamnus cathartica - European Buckthorn - FAC Agrostis gigantea - Black Bent - FACW Onoclea sensibilis - Sensitive Fern - FACW

W18 & W19– W18 (**Figure 02**) is 0.07 acres and W19 is 0.71 acres. These wetlands are located along CCE-EP13. W18 consists of only PSS habitat (**Figure 02**), while W19 consists of 0.04 acres of PEM and 0.67 acres of PSS habitat. Hydrologic flow of these wetlands is generally to the west along CCE-EP13. Species associated with these wetland habitats include (soil boring – SB-CCE-23 & SB-CCE-33):

Matteuccia struthiopteris - Ostrich Fern - FAC Rhamnus cathartica - European Buckthorn - FAC Epilobium coloratum- Purple-Leaf Willowherb - OBL



W20 & W21 – W20 (**Figure 02**) is 0.18 acres and W21 is 0.45 acres. These wetlands are located upstream of CCE-EP14. Both wetlands consist of PSS habitat (**Figure 02**). Hydrologic flow of these wetlands is generally to the west along CCE-EP14. W21 flows directly into CCE-EP14, while W20 appears to flow towards W21. Species associated with these wetland habitats include (soil boring – SB-CCE-24 & SB-CCE-25):

Eleocharis palustris - Common Spike-Rush - OBL Rhamnus cathartica - European Buckthorn - FAC Carex vulpinoidea - Common Fox Sedge - OBL

W22 & W23– W22 (**Figure 02**) is 0.12 acres and W23 is 1.32 acres. These wetlands are located in an inactive agricultural field located on the northeastern portion of the Site. Both wetlands consist of PEM habitat (**Figure 02**). Hydrologic flow of these wetlands is generally to the west and down gradient with discharge from these wetlands occurring as overland flow. Both of these wetlands are in a portion of the agricultural field that appears to have been scraped of topsoil based on the soil characteristics observed (very gravelly); changes in topography along the edges of the field and wetlands; grounds scars observed that are consistent with apparent use of construction equipment; and evidence of ground scarring on aerial photographs. Species associated with these wetland habitats include (soil boring – SB-CCE-24 & SB-CCE-25):

Juncus tenuis – Path rush – FAC

Phalaris arundinacea – Reed canary grass – FACW

Carex vulpinoidea - Common Fox Sedge – OBL

W30 – W30 (**Figure 02**) is 3.36 acres and is located in the western portion of the Site uphill of CCE-EP17 and consists of 1.64 acres of PEM and 1.71 acres of PSS habitat (**Figure 02**). Hydrologic flow of W30 is generally to the west where it flows into CCE-EP17. The area appears to be previously disturbed and soil in some areas appeared to be scrapped. Species associated with W30 habitats include (soil boring – SB-CCE-41):

Eleocharis tenuis - Slender Spike-Rush - FACW Rhamnus cathartica - European Buckthorn - FAC Euthamia graminifolia - Flat-Top Goldentop - FAC Fraxinus pennsylvanica - Green Ash - FACW

Summary

Ramboll biologists performed a wetlands presence/absence survey between June 5 and June 13, 2024 within the approximately 194.1 acre Site associated with the Cayuga Operating Company facility at 228 Cayuga Dr, Lansing, NY 14882 (**Figure 01**). **Figure 02** of this memorandum illustrates the limits of habitats delineated within the Site. Twenty-four (24) wetland habitats totaling 9.83 acres were identified within the Site. The Cowardin cover types of each wetland identified during the wetland delineation and consisted of palustrine forested (0.68 acres), palustrine scrub-shrub (4.95 acres) and palustrine emergent (4.20 acres) habitats. In addition, approximately 12,511 linear feet (If) of ephermeral, 2,906 If of intermittent and 174 If of perennial stream habitat was delineated.

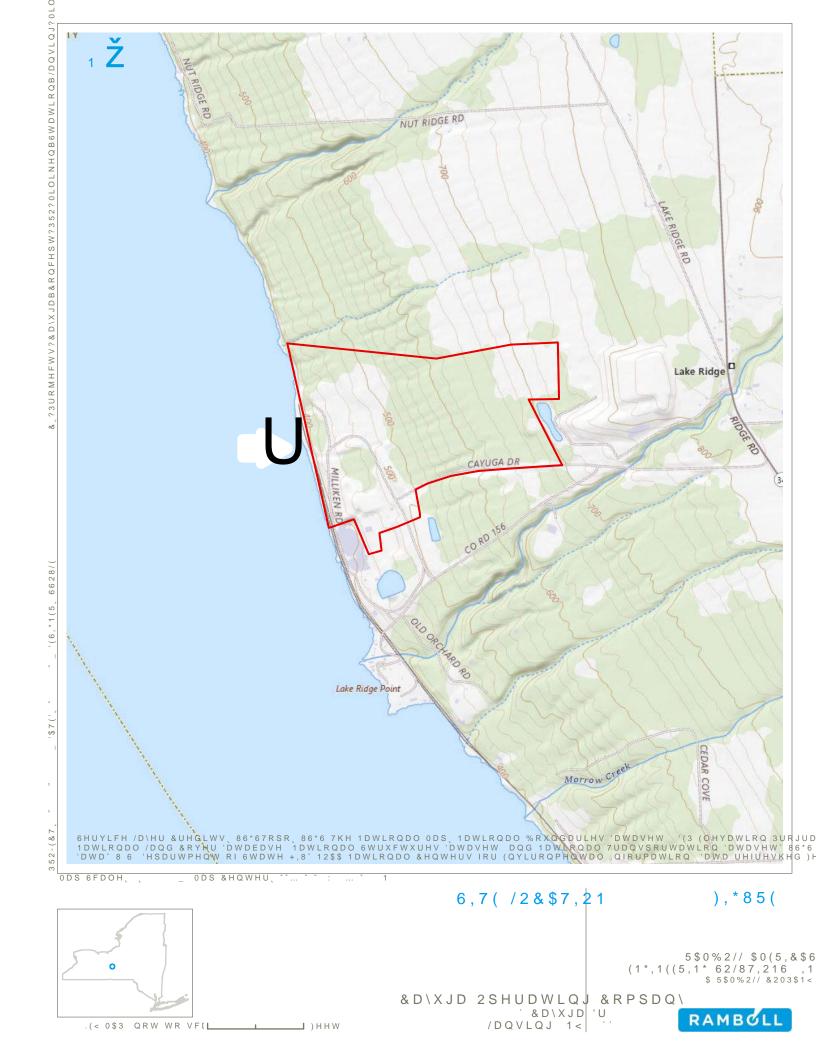


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FIGURES



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6HUYLFH /BHU &UHGLWV, %LQ, ODSV +\EULG, % OLFURVRIW &RUSRUDWLRQ % ■ &XOYHUW — (SKHPHUDO 6WU'HHDDPLQHDWHG: HWODQG & F US R7WSHQWLDO: HWODQG '(/,1(\$7(':(7/\$1'6| \$1'675(\$06),*85(▲ 6RLO %RULQJ ,QWHUPLWWHQV WULQH (PHUJHQ W 8 LOWH %RXQGDU\ 'HOLQHDWHG 6WUHBRUHQQLDO 6W BDOXVWULQH)RUHVWHG 3)2 5 \$ 0 % 2 // \$ 0 (5, & \$6 (1*,1((5,1*62/87,216,1 \$ 5\$0%2// & 203\$1 < 'LWFK 3DOXVWULQH 6KUXE 6FUXE 366

3RWHQWLDO ZHWODQGV ZHUH REVHUYHG LQ WKH ILHOG EXW QRW GHOLQHDWHG

___) HHW

RAMBOLL



ATTACHMENT 1
WETLAND DATA FORMS

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering		City/County: Lansing	g/Tompkins	Sampling Date: 6/4/2025
Applicant/Owner: Beowulf		**************************************	State: NY	Sampling Point: CCE-SB-01
Investigator(s): Nathan Turk Christopher N		Section, To	wnship, Range:	
Landform (hillside, terrace, etc.): Upper hil		elief (concave, conve		Slope %: 3
Subregion (LRR or MLRA): LRR L, MLRA		445	-76.63815644	Datum: NAD 83
		Long.	-	NA
Soil Map Unit Name: Hudson-Cayuga silt I		V What Sprand	NWI classification:	*
Are climatic / hydrologic conditions on the sit	e typical for this time of year?	Yes	No X (If no,	explain in Remarks.)
Are Vegetation N, Soil N, or Hydr	ology N significantly disturb	ed? Are "Norm	nal Circumstances" prese	ent? Yes X No
Are Vegetation N, Soil N, or Hydr	ology N naturally problemat	tic? (If needed	d, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attacl	site map showing sam	oling point loca	tions, transects, in	portant features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled A	rea	
Hydric Soil Present?	Yes X No	within a Wetland		No
Wetland Hydrology Present?	Yes X No	If yes, optional We		
Remarks: (Explain alternative procedures				
Wetter than usual Spring season.	ioro or in a coparato reporti,			
Wet boring for CCE-W1. Upper slope positi	on saturated area upstream of cl	hannelized feature ru	unning downslope into Ca	ayuga Lake.
				,
HYDROLOGY				_
Wetland Hydrology Indicators:			Secondary Indicators (r	minimum of two required)
Primary Indicators (minimum of one is requ	ired; check all that apply)		Surface Soil Cracks	
X Surface Water (A1)	Water-Stained Leaves (B	9)	X Drainage Patterns	(B10)
X High Water Table (A2)	Aquatic Fauna (B13)	*	Moss Trim Lines (B	D
X Saturation (A3)	Marl Deposits (B15)		Dry-Season Water	DESTA COMPANY
Water Marks (B1)	Hydrogen Sulfide Odor (C	C1)	Crayfish Burrows (0	
Sediment Deposits (B2)	Oxidized Rhizospheres of	n Living Roots (C3)	Saturation Visible of	on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron	n (C4)	Stunted or Stressed	d Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic Position	on (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (I	03)
Inundation Visible on Aerial Imagery (B	7) Other (Explain in Remark	s)	X Microtopographic R	Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present? Yes _X_	No Depth (inches):	1.5		
Water Table Present? Yes X	No Depth (inches):	1		
Saturation Present? Yes X	No Depth (inches): _	1 Wetlan	d Hydrology Present?	Yes _ X _ No
(includes capillary fringe)	271 AD 921			48 U.S. 100 E.S.
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, prev	vious inspections), if	available:	
Remarks:				

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

EGETATION – Use scientific names of pla	Absolute	Dominant	Indicator	Sampling Point: CCE-SB-01
Free Stratum (Plot size:30)	% Cover	Species?	Status	Dominance Test worksheet:
Rhamnus cathartica	30	<u>Yes</u>	FAC_	Number of Dominant Species
. Tilia americana	15	Yes	FACU_	That Are OBL, FACW, or FAC:3(A)
. Carya ovata	10	No	FACU_	Total Number of Dominant
	7	- —		Species Across All Strata:5 (B)
5	-			Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: 60.0% (A/B)
				Prevalence Index worksheet:
	55	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
. Rhamnus cathartica	10	Yes	FAC	FACW species 47 x 2 = 94
2. Carya ovata	5	Yes	FACU_	FAC species 57 x 3 = 171
3. Quercus rubra	1	No	FACU	FACU species35 x 4 =140
i				UPL species 20 x 5 = 100
5	<u> </u>	= 7 <u></u>		Column Totals: 159 (A) 505 (B
3.	100	S 88		Prevalence Index = B/A = 3.18
	700			Hydrophytic Vegetation Indicators:
	16	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		-:		X 2 - Dominance Test is >50%
Impatiens capensis	45	Yes	FACW	3 - Prevalence Index is ≤3.0 ¹
2. Melissa officinalis	10	No	UPL	4 - Morphological Adaptations ¹ (Provide supporting
3. Carex grisea	10	No	FAC	data in Remarks or on a separate sheet)
Tridens flavus	10	No No	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Ranunculus acris	3	No	FAC	
3. Rhamnus cathartica	2	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
. Alliaria petiolata	2	No	FACU	Definitions of Vegetation Strata:
3. Solidago lepida	2	No No	FACU	
). Rumex crispus	2	No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
0. Carex intumescens		No	FACW	
11	-			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
2.	99	* * 	E	and greater than or equal to 5.20 it (1 iii) tall.
	88	=Total Cover	-	Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Monda Vine Stratum (Diet sine) 20		- Total Cover		of size, and woody plants less than 5.26 it tall.
Noody Vine Stratum (Plot size: 30)	0	NI-	E4011	Woody vines – All woody vines greater than 3.28 ft in
. Vitis labrusca	2	No	FACU_	height.
2				Hydrophytic
3.		- —		Vegetation
l				Present?
	2	=Total Cover		1

SOIL Sampling Point CCE-SB-01

Profile Descr Depth	iption: (Describe to Matrix	the de		ument the x Feature		ator or co	onfirm the absence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 5	10YR 4/1	0			-7F-		Loamy/Clayey	
5 - 12	10YR 4/2	98	10YR 4/6				Loamy/Clayey	71.
			10YR 4/6					
12 - 18	10YR 4/1	95	1018 4/6		<u> </u>	<u>M</u>	Loamy/Clayey	
			<u> </u>					
	<u></u>		· · · · · · · · · · · · · · · · · · ·					
	. 				-	11		
-			ie d			$\overline{}$		
		—						
								411
¹ Type: C=Co	ncentration, D=Deple	etion, RM	M=Reduced Matrix, M	MS=Mas	ked San	d Grains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Ir			*				Indicators for Problematic Hydric Soils	s ³ :
Histosol (1/2		Dark Surface (9 880			2 cm Muck (A10) (LRR K, L, MLRA	149B)
	pedon (A2)		Polyvalue Belo		ce (S8) (LRR R,	Coast Prairie Redox (A16) (LRR K, L	SS 30
— Black His	44 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		MLRA 149B	i nesamo	// DD D		5 cm Mucky Peat or Peat (S3) (LRR	
	Sulfide (A4)		Thin Dark Surfa					K, L)
	Layers (A5) Below Dark Surface	(A11)	High Chroma S Loamy Mucky I				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR	KIR)
	k Surface (A12)	(111)	Loamy Gleyed			(II, L)	Piedmont Floodplain Soils (F19) (ML	
The same of the same	odic (A17)		X Depleted Matrix	o 2000-000 85			Red Parent Material (F21) (outside I	
(MLRA	144A, 145, 149B)		Redox Dark Su		6)		Very Shallow Dark Surface (F22)	***************************************
Sandy Mu	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (Explain in Remarks)	
	eyed Matrix (S4)		Redox Depress		8)			0.000
— Sandy Re			Marl (F10) (LR		_		³ Indicators of hydrophytic vegetation	The state of the s
— Stripped I	Matrix (S6)		Red Parent Ma	iterial (F	21) (MLF	RA 145)	wetland hydrology must be presen	t,
Restrictive L	ayer (if observed):						unless disturbed or problematic.	
Type:	5 5							
	ches):						Hydric Soil Present? Yes X No	<u></u> .
Remarks:	5-5							
A CONTRACTOR AND CONTRACTOR								

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: Lansing/Tompkins. Sampling Date: 6/4/2025
Applicant/Owner: Beowulf	State: NY Sampling Point: SB-CCE-02
Investigator(s): Nathan Turk Christopher Nack	Section, Township, Range:
	cal relief (concave, convex, none): concave Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 42.61076873	Long: -76.6367922 Datum: NAD 83
Soil Map Unit Name: Hudson-Cayuga silt loams, 2 to 6 percent slopes	
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation N, Soil N, or Hydrology N significantly dis	sturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ }$, or Hydrology $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
THE RESIDENCE OF THE PROPERTY OF THE PROPERTY OF THE RESIDENCE OF THE PROPERTY	
Wet boring for CCE-W2. Wet area upslope of EP1.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained Leave	The state of the s
X High Water Table (A2) Aquatic Fauna (B13)	4
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Oc	
	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
	on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)Thin Muck Surface (
Inundation Visible on Aerial Imagery (B7)Other (Explain in Re	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inche	
Water Table Present? Yes X No Depth (inche	TOTAL TOTAL PROPERTY PLANTAGE OF THE STATE O
Saturation Present? Yes X No Depth (inche	es):0 Wetland Hydrology Present? Yes _X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	nerviews increasions) if availables
Describe Recorded Data (stream gauge, monitoring well, aerial priotos,	, previous inspections), ii available:
Remarks:	

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

% Cover 60 5	Yes No	FAC FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:(A)				
5	. <u>No</u>	FACU_	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:(A/6				
į.			Prevalence Index worksheet:				
65	=Total Cover		Total % Cover of: Multiply by:				
			OBL species 0 x 1 = 0				
15	Yes	FAC	FACW species 25 x 2 = 50				
	F 1		FAC species 100 x 3 = 300				
			FACU species 20 x 4 = 80				
4			UPL species 0 x 5 = 0				
ę.	= 7		Column Totals: 145 (A) 430 (I				
i			Prevalence Index = B/A = 2.97				
			Hydrophytic Vegetation Indicators:				
15	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
			X 2 - Dominance Test is >50%				
20	Yes	FAC	X 3 - Prevalence Index is ≤3.01				
15	Yes	FACU	4 - Morphological Adaptations ¹ (Provide support				
10	No No	FACW	data in Remarks or on a separate sheet)				
10	No No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)				
5	No	FAC					
5	No No	FACW	¹ Indicators of hydric soil and wetland hydrology mu be present, unless disturbed or problematic.				
	* 8		Definitions of Vegetation Strata:				
			Tree Woody plants 2 in (7.6 cm) or more in				
	\$ \ 		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of heigh				
			Continued by Monday plants loss than 2 in DDI				
			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, regardle				
65	=Total Cover		of size, and woody plants less than 3.28 ft tall.				
			Woody vines – All woody vines greater than 3.28 ft				
			height.				
		5					
=			Hydrophytic				
			Vegetation Present? Yes X No				
	=Total Cover						
	15 15 20 15 10 10 5 5	15 Yes 15 Total Cover 15 Yes 15 Total Cover 20 Yes 15 Yes 10 No 10 No 5 No 5 No	15				

SOIL Sampling Point SB-CCE-02

Profile Descr Depth	iption: (Describe to Matrix	o the de		ıment th x Featur		ator or co	onfirm the absence of	indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 4	10YR 4/1	100					Loamy/Clayey	VA (2017) 10 10 10 10 10 10 10 10 10 10 10 10 10	
4 - 18	10YR 4/2	95	10YR 5/6	5			Loamy/Clayey		H-
	101111112		10111070						
			**						
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	20								
			-						
-			-	—					
. 71	-								নীঃ
1Tuner C=Cor		——	M=Reduced Matrix, N			——	2l acation: DI	=Doro Lining M=Motrix	-
Hydric Soil Ir		Buon, Riv	vi-Reduced Matrix, N	15-Ivias	keu Sand	d Grains.		=Pore Lining, M=Matrix. r Problematic Hydric Soi	ls ³ ·
Histosol (Dark Surface (S7)				k (A10) (LRR K, L, MLRA	
	pedon (A2)		Polyvalue Belo	9 880	ce (S8) (LRR R,	H 	airie Redox (A16) (LRR K,	
Black His			MLRA 149B)			5 cm Muc	ky Peat or Peat (S3) (LRF	R K, L, R)
Hydrogen	Sulfide (A4)		Thin Dark Surfa	ace (S9)	(LRR R	, MLRA	149B) Polyvalue	Below Surface (S8) (LRR	K, L)
Stratified	Layers (A5)		High Chroma S	Sands (S	311) (LRI	R K, L)	Thin Dark	Surface (S9) (LRR K, L)	
	Below Dark Surface	(A11)	Loamy Mucky I			RK, L)		ganese Masses (F12) (LR I	
The same of the same	k Surface (A12)		Loamy Gleyed	- 200-cm 55	F2)		The second secon	Floodplain Soils (F19) (M	
	odic (A17)		X Depleted Matri		.0.			nt Material (F21) (outside	MLRA 145)
	144A, 145, 149B)		Redox Dark Su					low Dark Surface (F22)	
O	ucky Mineral (S1) eyed Matrix (S4)		— Depleted Dark Redox Depress				— Other (Ex	plain in Remarks)	
Sandy Re			Marl (F10) (LR		5)		3Indicator	s of hydrophytic vegetation	and
	Matrix (S6)		Red Parent Ma		21) (ML F	RA 145)		hydrology must be presen	Secretary Color
	naun (co)			itoriai (i	_ · / (···· <u>_</u> ·	u,		disturbed or problematic.	
Restrictive L	ayer (if observed):								*
Type:	50 M NOW								
Depth (inc	ches):						Hydric Soil Present	t? Yes_X N	°
Remarks:									

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: L	_ansing/Cayuga	Sampling Date: 6/4/2025
Applicant/Owner:		State: NY	Sampling Point: SB-CCE-03
Investigator(s): Nathan Turk Christopher Nack Alan Gorsl	ki Adam Go Secti	ion, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relief (concave	, convex, none): none	Slope %: 2
Subregion (LRR or MLRA): Lat:		Long:	Datum:
Soil Map Unit Name:		NWI classification:	
Are climatic / hydrologic conditions on the site typical for the	is time of year? Yes	s_X No (If no,	explain in Remarks.)
Are Vegetation N , Soil N , or Hydrology N s	significantly disturbed? Are	e "Normal Circumstances" prese	ent? Yes X No
Are Vegetation N , Soil N , or Hydrology N r	naturally problematic? (If	needed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map			100 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes Yes	No X Is the Sample No X within a Wealth No X If yes, option		No <u>X</u>
Remarks: (Explain alternative procedures here or in a se	parate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (n	ninimum of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil Cracks	
	Stained Leaves (B9)	Drainage Patterns (3. 3
	c Fauna (B13)	Moss Trim Lines (B	- 10
[- 	eposits (B15)	Dry-Season Water	TOTAL COMPANIE
	gen Sulfide Odor (C1)	Crayfish Burrows (C	A CONTRACTOR OF THE CONTRACTOR
	ed Rhizospheres on Living Roots	s (C3) Saturation Visible o	n Aerial Imagery (C9)
	ice of Reduced Iron (C4)	Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4) Recent	t Iron Reduction in Tilled Soils (C	Geomorphic Positio	n (D2)
	uck Surface (C7)	Shallow Aquitard (D	100 MARINE 1 10 MAIN 1 10
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic R	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (I	
Field Observations:			- VS
Surface Water Present? Yes No X	Depth (inches):		
Water Table Present? Yes No X	Depth (inches):		
Saturation Present? Yes No X		Wetland Hydrology Present?	Yes NoX_
(includes capillary fringe)	÷ 5		a
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspection	ons), if available:	
Remarks:			1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:				
1. Acer saccharum	70	Yes	FACU	N - 1 - 12 - 1 - 12 - 1				
2. Pinus strobus	30	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)				
3. Juniperus virginiana	10	No No	FACU	T-t-INt(Dit				
4.				Total Number of Dominant Species Across All Strata: 8(B)				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 12.5% (A/B)				
7.				Prevalence Index worksheet:				
	110	=Total Cover		Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0				
1. Acer saccharum	10	Yes	FACU	FACW species 0 x 2 = 0				
2. Quercus alba	5	Yes	FACU	FAC species 5 x 3 = 15				
3. Rhamnus cathartica	3	No	FAC	FACU species 132 x 4 = 528				
4.	00			UPL species 0 x 5 = 0				
5.				Column Totals: 137 (A) 543 (B)				
6.				Prevalence Index = B/A = 3.96				
7.		- 1		Hydrophytic Vegetation Indicators:				
	18	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
Herb Stratum (Plot size: 5)		•		2 - Dominance Test is >50%				
1. Fragaria virginiana	3	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹				
2. Ilex opaca	2	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting				
3. Quercus alba	2	Yes	FACU	data in Remarks or on a separate sheet)				
4. Rhamnus cathartica	2	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)				
5				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
7.				Definitions of Vegetation Strata:				
0		2 II II						
9.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
11.	27			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.				
12.		* t 						
	9	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
Woody Vine Stratum (Plot size:)				Woody vines – All woody vines greater than 3.28 ft in				
1				height.				
2.				Hydrophytic				
3	ALL CONTRACTOR OF THE PROPERTY			Vegetation				
4.	-			Present?				
		=Total Cover						
Remarks: (Include photo numbers here or on a separ				Present? TesNoX				

Sampling Point: SB-CCE-03

SOIL Sampling Point SB-CCE-03

		o the de				ator or co	onfirm the absence o	f indicato	rs.)		
Depth (inches)	Color (moist)	%	Color (moist)	x Featur %	Type ¹	Loc ²	Texture		Remark	re.	
0 - 4	10YR 4/4	100	Color (moist)		Туре		Loamy/Clayey		Kemark		
	S	$\overline{}$		—						-	
4 - 18	10YR 5/4	100				· <u> </u>	Loamy/Clayey				
	1										
	i . 3		<u></u>								
					-						
	-										
			-			10					
		—	***************************************	_							
			-								
	18 18				-					- AS	
¹Type: C=Co	ncentration, D=Deple		A=Reduced Matrix N		word Sand		² Location: P	I =Pore I i	ning M=Mat	riv	
Hydric Soil I		suon, ran	//-Reduced Matrix, N	io-iviasi	keu Sant	d Grains.	Indicators fo				
Histosol			Dark Surface (S7)					LRR K, L, M		
	ipedon (A2)		Polyvalue Belo	9 880	ce (S8) (I	LRR R.			ox (A16) (LR		
Black His			MLRA 149B		(/(,			12 07070	(LRR K, L, R)	
	n Sulfide (A4)		Thin Dark Surfa	i nesamo	(LRR R	, MLRA			Surface (S8) (
	Layers (A5)		High Chroma S						(S9) (LRR K		
	Below Dark Surface	(A11)	Loamy Mucky				Iron-Mar	nganese N	Masses (F12)	(LRR K, L, R)	
Thick Da	rk Surface (A12)		Loamy Gleyed	Matrix (F2)		Piedmor	t Floodpla	ain Soils (F19) (MLRA 149B)	
Mesic Sp	odic (A17)		Depleted Matri	x (F3)			Red Par	ent Materi	al (F21) (out	side MLRA 145)	
(MLR	A 144A, 145, 149B)		Redox Dark Su	ırface (F	6)		Very Sha	allow Dark	Surface (F2	2)	
2	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (E	xplain in F	Remarks)		
	leyed Matrix (S4)		Redox Depress		3)						
	edox (S5)		Marl (F10) (LR					All the state of t	ophytic vege		
Stripped	Matrix (S6)		Red Parent Material (F21) (MLRA 145)				wetland hydrology must be present, unless disturbed or problematic.				
Donatel atting 1	/if -b						unless	disturbed	or problema	itic.	
Type:	ayer (if observed):										
15.0									1446	٧	
Depth (in	cnes):		-				Hydric Soil Presei	nt?	Yes	No X	
Remarks:											

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engine	ering	City/County: Lansing	J	Sampling Date: 6/5/2025
Applicant/Owner:			State: NY	Sampling Point: SB-CCE-04
Investigator(s): Nathan Turk Christoph	er Nack	Section, To	wnship, Range:	
Landform (hillside, terrace, etc.): Lake		elief (concave, conve		Slope %: 5
Subregion (LRR or MLRA): LRR L, M			-76.63288698	Datum: NAD 83
Soil Map Unit Name: Hudson-Cayuga			NWI classification:	
*				*
Are climatic / hydrologic conditions on the	(50)	Yes X	· · · · · · · · · · · · · · · · · · ·	explain in Remarks.)
Are Vegetation N, Soil N, or	Hydrology N significantly disturb	ed? Are "Norn	nal Circumstances" pres	ent? Yes X No
Are Vegetation N, Soil N, or	Hydrology N naturally problemate	tic? (If needed	d, explain any answers ir	n Remarks.)
SUMMARY OF FINDINGS – At	tach site map showing sam	pling point loca	tions, transects, in	nportant features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled A	rea	
Hydric Soil Present?	Yes X No	within a Wetland		No
Wetland Hydrology Present?	Yes X No	If yes, optional We	to the second se	
Remarks: (Explain alternative procedu	ures here or in a separate report.)	2000 1000 1000 1000 1000 1000 1000 1000	-	
Wet boring for CCE-W3.				
HYDROLOGY				120
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is	required; check all that apply)		Surface Soil Crack	s (B6)
X Surface Water (A1)	X Water-Stained Leaves (B	9)	X Drainage Patterns	(B10)
X High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (E	316)
X Saturation (A3)	Marl Deposits (B15)		Dry-Season Water	
— Water Marks (B1)	Hydrogen Sulfide Odor (C		Crayfish Burrows (
Sediment Deposits (B2)	Oxidized Rhizospheres o			on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iro		Stunted or Stresse	pro-server (CTC) 514
Algal Mat or Crust (B4)	Recent Iron Reduction in	filled Soils (C6)	X Geomorphic Position	
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (I	110.00-4/11
Inundation Visible on Aerial Image Sparsely Vegetated Concave Surf		(8)	Microtopographic F X FAC-Neutral Test (8 8
	ace (Bo)	T	X FAC-Neutral Test ((03)
Field Observations: Surface Water Present? Yes X	No Donth (inches):	0.5		
Surface Water Present? Yes X Water Table Present? Yes X				
Saturation Present? Yes X		The second secon	d Hydrology Present?	Yes X No
(includes capillary fringe)			,	<u></u>
Describe Recorded Data (stream gaug	e, monitoring well, aerial photos, pre-	vious inspections), if	available:	The state of the s
Remarks:				

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<u> </u>	10	Yes	FAC	- 100 Address Committee Co
Acer rubrum Quercus rubra	10	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
3. Juglans nigra		Yes	FACU	
4				Total Number of Dominant Species Across All Strata:(B)
5			-	Percent of Dominant Species
6				That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
	50	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Rhamnus cathartica	10	Yes	FAC	FACW species 15 x 2 = 30
2. Fraxinus pennsylvanica	5	Yes	FACW_	FAC species 20 x 3 = 60
3.	2	· ·	-	FACU species15 x 4 =60
4	<u> </u>			UPL species 0 x 5 = 0
5	4			Column Totals: 50 (A) 150 (B)
6				Prevalence Index = B/A =3.00
7				Hydrophytic Vegetation Indicators:
	30	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size:5				X 2 - Dominance Test is >50%
1. Solidago gigantea	5	Yes	FACW_	x 3 - Prevalence Index is ≤3.01
2. <u>Eupatorium perfoliatum</u>	5	Yes	FACW_	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. 4.		. 0.———————————————————————————————————		Problematic Hydrophytic Vegetation ¹ (Explain)
5.	.50			
6.		s ())		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.			-	Definitions of Vegetation Strata:
8.		2 3.	-	Tree Weeds plants 2 in /7.6 cm) or more in
9.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10	9			Sapling/shrub – Woody plants less than 3 in. DBH
11	99	• 1 2 - 12 00	-	and greater than or equal to 3.28 ft (1 m) tall.
12	20	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woods Vine Stratum (Plot sizes 20)		- Total Cover		The control of the co
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1.				height.
2. 3.				Hydrophytic
				Vegetation Present? Yes X No
4		=Total Cover		Present?
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

Sampling Point: SB-CCE-04

SOIL Sampling Point SB-CCE-04

Profile Descripe	ription: (Describe to Matrix	the de		ıment th x Feature		tor or co	onfirm the absence o	f indicato	rs.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0 - 16	10YR 3/1	100			1900		Muck	ā.	romanc	
16 - 18	1011(0/1		55 50 80 80	—	2		Widok	i.		
10 - 10	8						-			
		—								
	26 38 1		<u> </u>							
	-					—		<u> </u>		
	Pi		2							
	1 									
-								-		
	-									
2.00) 				-	-				A16
¹Type: C=Co	ncentration, D=Deple	tion RM	======================================	MS=Masi	ked Sand	Grains	² Location: F	PL=Pore Li	ning, M=Matri	x.
Hydric Soil I			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						natic Hydric	
Histosol (Dark Surface (S	S7)					LRR K, L, MI	
Histic Epi	ipedon (A2)		Polyvalue Belo	w Surfac	ce (S8) (I	_RR R,	Coast P	rairie Redo	ox (A16) (LRR	K, L, R)
X Black His	tic (A3)		MLRA 149B))			5 cm Mi	icky Peat	or Peat (S3) (I	LRR K, L, R)
Hydroger	n Sulfide (A4)		Thin Dark Surfa	ace (S9)	(LRR R	MLRA 1	149B)Polyvalu	e Below S	urface (S8) (L	_RR K, L)
Stratified	Layers (A5)		High Chroma S	ands (S	11) (LRF	R K, L)	Thin Da	rk Surface	(S9) (LRR K,	, L)
Depleted	Below Dark Surface	(A11)	Loamy Mucky N	Mineral ((F1) (LR F	R K, L)	Iron-Ma	nganese M	lasses (F12)	(LRR K, L, R)
Thick Da	rk Surface (A12)		Loamy Gleyed	Matrix (F	F2)		Piedmo	nt Floodpla	in Soils (F19)	(MLRA 149B)
Mesic Sp	odic (A17)		Depleted Matrix	Committee of the commit						ide MLRA 145)
	A 144A, 145, 149B)		Redox Dark Su	rface (F	6)		Very Sh	allow Dark	Surface (F22	2)
	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (E	explain in F	Remarks)	
	eyed Matrix (S4)		Redox Depress		3)		•			
	edox (S5)		Marl (F10) (LRI						ophytic vegeta	
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (MLF	RA 145)			gy must be pr l or problemat	
Restrictive L	ayer (if observed):						unics	3 distarbee	or problemat	10.
Type: _										
Depth (in	ches):						Hydric Soil Prese	nt?	Yes_X	No
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/Cou	nty: Lansing / Tomple	kins	Sampling Date: 6/5/2025
Applicant/Owner: Beowulf			State: NY	Sampling Point: SB-CCE-05
Investigator(s): Nathan Turk		Section, Township, F	Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relief (con	cave, convex, none):	1.0 35747 mile	Slope %: 2
8 0 0 -	at: 42.6096105	Long: -76.633		Datum: NAD 83
Soil Map Unit Name: Hudson silty clay loam, 2 to 6			/I classification:	NA NA
*	· · · · · · · · · · · · · · · · · · ·			
Are climatic / hydrologic conditions on the site typical	(5)	Yes X No		explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology	significantly disturbed?	Are "Normal Circui	mstances" preser	nt? Yes X No
Are Vegetation N, Soil N, or Hydrology	naturally problematic?	(If needed, explain	any answers in f	Remarks.)
SUMMARY OF FINDINGS – Attach site n	nap showing sampling p	oint locations, t	ransects, imp	portant features, etc.
Hydrophytic Vegetation Present? Yes	No X Is the	Sampled Area		
Hydric Soil Present? Yes		a Wetland?	Yes X	No
Wetland Hydrology Present? Yes	The second secon	optional Wetland Site		
Remarks: (Explain alternative procedures here or in	a separate report.)			
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
Wet boring for W4				
HYDROLOGY				
Wetland Hydrology Indicators:		Second	ary Indicators (m	inimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)	-	face Soil Cracks	
	ater-Stained Leaves (B9)		inage Patterns (E	5 6
	quatic Fauna (B13)	10 	ss Trim Lines (B1	19
Saturation (A3)	arl Deposits (B15)	— Dry	-Season Water T	able (C2)
Water Marks (B1)	ydrogen Sulfide Odor (C1)	Cra	yfish Burrows (Ca	8)
Sediment Deposits (B2)	xidized Rhizospheres on Living	Roots (C3) Sat	uration Visible on	Aerial Imagery (C9)
Drift Deposits (B3)	resence of Reduced Iron (C4)	Stu	nted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	ecent Iron Reduction in Tilled Se	oils (C6) X Geo	omorphic Position	ı (D2)
Iron Deposits (B5)	nin Muck Surface (C7)	Sha	allow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7)O	ther (Explain in Remarks)	Mic	rotopographic Re	lief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC	C-Neutral Test (D	5)
Field Observations:				
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes No				SOUTH REPORT
Saturation Present? Yes No	Depth (inches):	Wetland Hydro	logy Present?	Yes _ X _ No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous ins	pections), if available	£I.	
Domarko				-
Remarks:				

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
 Juglans nigra 	15	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
3				Total Number of Dominant Species Across All Strata:(B)
5 6.		-		Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9% (A/B)
7.		. ——		Prevalence Index worksheet:
	15	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Rhamnus cathartica	15	Yes	FAC	FACW species 60 x 2 = 120
2. Fraxinus pennsylvanica	5	Yes	FACW	FAC species 20 x 3 = 60
3.	2	<u> </u>		FACU species 48 x 4 = 192
4.				UPL species 0 x 5 = 0
5.				Column Totals: 128 (A) 372 (B)
6.		· 1		Prevalence Index = B/A = 2.91
7.	N.	• (f		Hydrophytic Vegetation Indicators:
· · · · · · · · · · · · · · · · · · ·	20	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		-		2 - Dominance Test is >50%
Parthenocissus quinquefolia	30	Yes	FACU	X 3 - Prevalence Index is ≤3.0 ¹
Teucrium canadense	30	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting
Phalaris arundinacea	10	No	FACW	data in Remarks or on a separate sheet)
4. Bidens frondosa	10	No No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Solidago gigantea	5	No No	FACW	
6. Geum canadense	5	No No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. Alliaria petiolata	3	No	FACU	Definitions of Vegetation Strata:
8.		2 i 1		T W
9.	,			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.				
11.	-		-	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.	-		-	
	93	=Total Cover	e <u>1</u> 5	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)		- 101411 00101		
Toxicodendron radicans	10	Yes	FAC	Woody vines – All woody vines greater than 3.28 ft in height.
Vitis labrusca	5	Yes	FACU	noight.
3		163	1700	Hydrophytic
				Vegetation No. Veg. Veg. Veg. Veg. Veg. Veg. Veg. Veg
4		- 		Present? Yes X No X
CO 80 000 00 90 100 10 W	15	=Total Cover		
Remarks: (Include photo numbers here or on a separ	32 020 1000			I

Sampling Point: SB-CCE-05

SOIL INDICATORS FLAGGED FOR QAQC

SOIL Sampling Point SB-CCE-05

Profile Desc	ription: (Describe t	o the de	oth needed to docu	ıment t	he indica	ator or co	confirm the absence of indicators.)	
Depth	Matrix		Redox	k Featur				
(inches)	Color (moist)	_ %	Color (moist)	_%_	Type ¹	Loc ²	Texture Remarks	_
0 - 3	10YR 4/1	100					Loamy/Clayey	
3 - 10	10YR 4/1	_97_	10YR 5/6	_3_	<u></u>	PL	Loamy/Clayey	_
10 - 18	10YR 4/2	100					Loamy/Clayey Gravelly shale present	_
								-
	-							_
-	-	-	-			-		-
	-					:		-
	-					_		_
								_,
								_
	oncentration, D=Deple	etion, RM	I=Reduced Matrix, N	1S=Mas	ked San	d Grains.		
Hydric Soil I			D-10-6	27)			Indicators for Problematic Hydric Soils ³ :	
Histosol			Dark Surface (3 Polyvalue Belo	1 1850	00 (58) (I DD D	2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)	
Black His	ipedon (A2) stic (A3)		MLRA 149B		ce (30) (LKK K,	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Thin Dark Surfa		(LRR R	, MLRA		68
	Layers (A5)		High Chroma S				Thin Dark Surface (S9) (LRR K, L)	
Depleted	Below Dark Surface	(A11)	Loamy Mucky	Mineral	(F1) (LRI	RK, L)	Iron-Manganese Masses (F12) (LRR K, L, R)
Thick Da	rk Surface (A12)		Loamy Gleyed	Matrix ((F2)		Piedmont Floodplain Soils (F19) (MLRA 149	B)
Mesic Sp	oodic (A17)		X Depleted Matri				Red Parent Material (F21) (outside MLRA 1	45)
	A 144A, 145, 149B)		Redox Dark Su				Very Shallow Dark Surface (F22)	
	ucky Mineral (S1)		Depleted Dark				Other (Explain in Remarks)	
	leyed Matrix (S4)		Redox Depress		8)		31. 41. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	
	edox (S5) Matrix (S6)		Marl (F10) (LR		:04\ /MI E	DA 44E\	³ Indicators of hydrophytic vegetation and	
— Suripped	Matrix (S6)		Red Parent Ma	iteriai (F	21) (IVILI	KA 145)	wetland hydrology must be present, unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Type:	94 M 19594							
Depth (in	nches):						Hydric Soil Present? Yes X No	
Remarks:								

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	Cit	ty/County: Lansing	Sampling Date: 6/5/2025
Applicant/Owner:		State: NY	Sampling Point: SB-CCE-06
Investigator(s): Nathan Turk Christopher Nac	 ck	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain		ef (concave, convex, none): none	Slope %: 2
Subregion (LRR or MLRA):			Datum:
Soil Map Unit Name:		NWI classification:	Batum.
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes X No (If no,	explain in Remarks.)
Are Vegetation N , Soil N , or Hydro	(50)		
Are Vegetation N , Soil N , or Hydro			
	5057.1 57.11		100 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
SUMMARY OF FINDINGS – Attach	site map snowing sampli	ing point locations, transects, im	portant features, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area	
Hydric Soil Present?		within a Wetland? Yes	No X
Wetland Hydrology Present?	Yes No _X I	If yes, optional Wetland Site ID:	<u></u>
Remarks: (Explain alternative procedures he	ere or in a separate report.)		
UPL boring for wetlands 3 and 4			
			-0
HYDROLOGY			=
Wetland Hydrology Indicators:		Secondary Indicators (n	ninimum of two required)
Primary Indicators (minimum of one is requir	ed; check all that apply)	Surface Soil Cracks	s (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		0.00
Sediment Deposits (B2)	Oxidized Rhizospheres on L	· · · · · · · · · · · · · · · · · · ·	n Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron ((C4) Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Til		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D	
Inundation Visible on Aerial Imagery (B7		. :::::::::::::::::::::::::::::::::	
Sparsely Vegetated Concave Surface (B	(8)	FAC-Neutral Test (I	D5)
Field Observations:			
Surface Water Present? Yes	No X Depth (inches):		
Water Table Present? Yes	No X Depth (inches):	The property of the tent of the	1000
Saturation Present? Yes	No X Depth (inches):	Wetland Hydrology Present?	Yes No _X_
(includes capillary fringe)			-
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previo	ous inspections), if available:	
Remarks:			

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
· · · · · · · · · · · · · · · · · · ·		•		Dominance rest worksneet.
1. Carya ovata	30	Yes	<u>FACU</u>	Number of Dominant Species
2. Quercus rubra	10	Yes	FACU	That Are OBL, FACW, or FAC:(A)
3. Quercus alba	5	No	FACU FACU	Total Number of Dominant
4. Juniperus virginiana	5	No	FACU_	Species Across All Strata:8(B)
5.	p .			Percent of Dominant Species
6.	-			That Are OBL, FACW, or FAC: 25.0% (A/B)
7				Prevalence Index worksheet:
	50	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Rhamnus cathartica	10	Yes	FAC	FACW species 5 x 2 = 10
2.	-		<u> </u>	FAC species13 x 3 =39
3.	2		-	FACU species 87 x 4 = 348
4				UPL species 0 x 5 = 0
5	4	· 1———		Column Totals: 105 (A) 397 (B)
6	.			Prevalence Index = B/A =3.78
7				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5				2 - Dominance Test is >50%
1. Fragaria virginiana	20	Yes	FACU_	3 - Prevalence Index is ≤3.0 ¹
2. Parthenocissus quinquefolia	5	Yes	FACU_	4 - Morphological Adaptations (Provide supporting
3. Fraxinus pennsylvanica	5	Yes	FACW_	data in Remarks or on a separate sheet)
4. Rosa multiflora	5	Yes	FACU_	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Solidago altissima	5	Yes	FACU_	¹ Indicators of hydric soil and wetland hydrology must
6. Rubus occidentalis	3	No	ubus	be present, unless disturbed or problematic.
7Solidago rugosa		- No-	occidentalis —FAC	Definitions of Vegetation Strata:
8. Carex cephalophora		—No—	—FACU—	Tree – Woody plants 3 in. (7.6 cm) or more in
9. Oxalis stricta		- No	—FACU—	diameter at breast height (DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH
11.	-			and greater than or equal to 3.28 ft (1 m) tall.
12.	7.			Herb – All herbaceous (non-woody) plants, regardless
·	48	=Total Cover	# #	of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Washing Allowed wines medal than 2.20 ft in
1.				Woody vines – All woody vines greater than 3.28 ft in height.
2.				
3.	3			Hydrophytic
4.				Vegetation
136		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			
The manual (manual printer name of or or a cope.	a.c ccc,			

Sampling Point: SB-CCE-06

SOIL Sampling Point SB-CCE-06

		o the de				tor or co	onfirm the absence of	indicators	5.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	Type ¹	Loc ²	Texture		Remarks	•
0 - 3	10YR 4/3	100	Color (moist)		Туре		Loamy/Clayey		Kemark	5
-	-	$\overline{}$								-
3 - 10	10YR 4/6	100	-				Loamy/Clayey			
10 - 18	10YR 6/3	100	-				Sandy	Sha	ale gravel pr	resent
	22		79							-241
-	ē — — — — — — — — — — — — — — — — — — —		*		8	4	ā (a			
	P									
	()					 -				
l 	-									
9			·		-					
-										
*	1-				-					
1							2, 5.			2
Hydric Soil I	ncentration, D=Deple	etion, RN	#=Reduced Matrix, N	IS=Masi	ked Sand	Grains.	² Location: PL Indicators fo			
Histosol			Dark Surface (S	S7)					.RR K, L, MI	
	ipedon (A2)		Polyvalue Belo	9 850	ce (S8) (I	LRR R,	4 		x (A16) (LRF	
Black His	stic (A3)		MLRA 149B)			5 cm Mud	ky Peat or	Peat (S3) ((LRR K, L, R)
	n Sulfide (A4)		Thin Dark Surfa						ırface (S8) (I	Gentleman Charles De Roy
	Layers (A5)	****	High Chroma S						S9) (LRR K	
	Below Dark Surface	(A11)	Loamy Mucky I			R K, L)		A language of the second		(LRR K, L, R)
	rk Surface (A12)		Loamy Gleyed	0 240-0-00 85	F2)		The same of the sa	and the same of) (MLRA 149B)
	odic (A17) A 144A, 145, 149B)		Depleted Matrix Redox Dark Su		6)				Surface (F22	side MLRA 145)
	ucky Mineral (S1)		Depleted Dark					plain in Re		-7
2	leyed Matrix (S4)		Redox Depress							
	edox (S5)		Marl (F10) (LR		1050		³ Indicator	s of hydror	phytic veget	ation and
Stripped	Matrix (S6)		Red Parent Ma	iterial (F:	21) (MLF	RA 145)	wetland	l hydrology	y must be pr	resent,
			D = 5				unless	disturbed o	or problema	tic.
	ayer (if observed):									
Type:	L . \							10		٧
Depth (in	icnes):						Hydric Soil Presen	17	Yes	No <u>X</u>
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept E	Engineering	City/County: Lansing	Sampling Date: 6/5/2025
Applicant/Owner: Beowulf		State: NY	Sampling Point: CCE-SB-07
Investigator(s): Christopher Nac	 ck Nathan Turk	Section, Township, Range:	
Landform (hillside, terrace, etc.):		lief (concave, convex, none): concave	Slope %: 2
Subregion (LRR or MLRA): LR		Long: -76.63591804	Datum: NAD 83
		NWI classification:	NA
Soil Map Unit Name: Rock outo			¥
T) (47)	ns on the site typical for this time of year?		explain in Remarks.)
Are Vegetation N, Soil N	I, or HydrologyN significantly disturbe	ed? Are "Normal Circumstances" pres	ent? Yes X No
Are Vegetation N, Soil N	, or Hydrology N naturally problemati	ic? (If needed, explain any answers in	n Remarks.)
SUMMARY OF FINDINGS	S – Attach site map showing samp	oling point locations, transects, in	nportant features, etc.
Hydrophytic Vegetation Present	t? Yes X No	Is the Sampled Area	
Hydric Soil Present?	Yes X No	within a Wetland? Yes X	No
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative p	procedures here or in a separate report.)	9-20-30-30-30-30-30-30-30-30-30-30-30-30-30	-
Se at 10 Mar March Means to be to			
Wet boring for W6			
			-
HYDROLOGY			
Wetland Hydrology Indicators	s:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required; check all that apply)	Surface Soil Crack	s (B6)
X Surface Water (A1)	Water-Stained Leaves (BS	9) X Drainage Patterns	(B10)
X High Water Table (A2)	X Aquatic Fauna (B13)	Moss Trim Lines (E	316)
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C		0.000 F
Sediment Deposits (B2)	Oxidized Rhizospheres or	, and the second	on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron		participant (CC) 1574
Algal Mat or Crust (B4)	Recent Iron Reduction in		
— Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (115.55.4711
Inundation Visible on Aerial			
Sparsely Vegetated Concav	ve Surface (B8)	X FAC-Neutral Test ((D5)
Field Observations:			
	es X No Depth (inches):		
	es X No Depth (inches):	AND	Vee V Ne
	es X No Depth (inches):	0 Wetland Hydrology Present?	Yes _ X _ No
(includes capillary fringe) Describe Recorded Data (stream	m gauge, monitoring well, aerial photos, prev	vious inspections) if available:	4
Docoribo ricocraca Data (oricar	m gaage, memoring wen, across proces, prov	nodo moposiono), n avanabio.	
Remarks:			

T-0-1	Absolute	Dominant	Indicator	5 1 7 1 1 1 1
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1		1		Number of Dominant Species
2.		()		That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4	-	. ——		Species Across All Strata: 2 (B)
5		. ——		Percent of Dominant Species
6.		. ——		That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:15)				OBL species45 x 1 =45
1. Rhamnus cathartica	40	Yes	FAC_	FACW species
2. Fraxinus pennsylvanica	10	No No	FACW_	FAC species40 x 3 =120
3. Juniperus virginiana	5	No	FACU	FACU species15 x 4 =60
4. Rosa multiflora	5	No	FACU_	UPL species 5 x 5 = 25
5	*	: :		Column Totals: 130 (A) 300 (B)
6.		- 10 		Prevalence Index = B/A = 2.31
7				Hydrophytic Vegetation Indicators:
	60	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1. Lemna minor	35	Yes	OBL	_X_3 - Prevalence Index is ≤3.0 ¹
2. Lycopus americanus	10	No	OBL	4 - Morphological Adaptations (Provide supporting
3. Impatiens capensis	10	No	FACW	data in Remarks or on a separate sheet)
4. Bidens frondosa	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Solidago altissima	5	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
6. Bromus inermis	5	No	UPL	be present, unless disturbed or problematic.
7.		2 () ().	-	Definitions of Vegetation Strata:
8.		2 1) 21		Tree – Woody plants 3 in. (7.6 cm) or more in
9.		<u> </u>		diameter at breast height (DBH), regardless of height.
10.				Continue (about 1 and 1
11.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.	50		-	
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	70	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				The modern property of the pro
				Woody vines – All woody vines greater than 3.28 ft in height.
1				
				Hydrophytic
· · · · · · · · · · · · · · · · · · ·				Vegetation Present? Yes X No
4.		=Total Cover		
Remarks: (Include photo numbers here or on a separate or	rate sheet.)			

Sampling Point: CCE-SB-07

SOIL Sampling Point CCE-SB-07

	ription: (Describe to Matrix	o the de		ıment th x Featur		ator or co	onfirm the absence of	indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	% reatur	Type ¹	Loc ²	Texture	Remarks	
0 - 6	10YR 4/1	95	10YR 5/6	5	С	M	Loamy/Clayey	Remarks	_
6 - 18	10YR 5/4	100	10111070	<u> </u>			Loamy/Clayey		_
0 10	10111.0/4		-						_
	-					:			_
-	ā. 		-	·		2 .			-
	-	—	}						-
	P P	-	<u> </u>						_
	1.5								_
	-								_
3						-			
	12	-			-				- 1
¹Type: C=Co	encentration, D=Deple	etion. RN	/=Reduced Matrix. N	MS=Mas	ked San	Grains.	² Location: PL	=Pore Lining, M=Matrix.	_
Hydric Soil I			,					Problematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface (S7)			2 cm Muc	k (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		Polyvalue Belo		ce (S8) (LRR R,		irie Redox (A16) (LRR K, L, R)	
— Black His	**************************************		MLRA 149B					ky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		— Thin Dark Surf					Below Surface (S8) (LRR K, L)	
	Layers (A5)	/A / 4\	High Chroma S					Surface (S9) (LRR K, L)	
	Below Dark Surface	(A11)	Loamy Mucky			RK,L)		anese Masses (F12) (LRR K, L, R)	
	rk Surface (A12)		Loamy Gleyed	. 2000000000000000000000000000000000000	F2)			Floodplain Soils (F19) (MLRA 149)	2555
	odic (A17) A 144A, 145, 149B)		X Depleted Matri Redox Dark Su		·6)			nt Material (F21) (outside MLRA 1 4 low Dark Surface (F22)	ıo)
	ucky Mineral (S1)		Depleted Dark					plain in Remarks)	
2	leyed Matrix (S4)		Redox Depress				— Other (Ex	Siair in Normarks)	
	edox (S5)		Marl (F10) (LR		٥,		3Indicators	of hydrophytic vegetation and	
	Matrix (S6)		Red Parent Ma		21) (MLF	RA 145)		hydrology must be present,	
					/ (disturbed or problematic.	
	.ayer (if observed):								
Type:	-k\.						Hadda Call Bassan	2 V Y N-	
Depth (in	cnes):		4"				Hydric Soil Present	? Yes X No	_
Remarks:									

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: Lansing / Tompkins	Sampling Date: 6/5/2025
Applicant/Owner: Beowulf	State: NY	Sampling Point: CCE-SB-08
Investigator(s): Christopher Nack Nathan Turk	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain Local	relief (concave, convex, none): concave	Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 101	Long: -76.63611337	Datum: NAD 83
Soil Map Unit Name: Hudson-Cayuga silt loams, 2 to 6 percent slopes	NWI classification:	NA
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, e	explain in Remarks.)
Are Vegetation N , Soil N , or Hydrology N significantly distu	rbed? Are "Normal Circumstances" prese	nt? Yes X No
Are Vegetation N , Soil N , or Hydrology N naturally problem		
SUMMARY OF FINDINGS – Attach site map showing san		10
Hydrophytic Vegetation Present? Yes X No Yes X N	Is the Sampled Area within a Wetland? Yes X	No
Hydric Soil Present? Yes X No	within a Wetland? Yes X If yes, optional Wetland Site ID:	No
Remarks: (Explain alternative procedures here or in a separate report.)	ii yes, optional victiana olici ib.	
remarks. (Explain alternative procedures here of in a separate report.)		
Wetland boring for W7		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (m	ninimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks	(B6)
X Surface Water (A1) Water-Stained Leaves	(B9) X Drainage Patterns (B10)
X High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B	16)
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water	Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor	1	
Sediment Deposits (B2) Oxidized Rhizospheres	E 12 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced II	or and the Manager are are also and the second of the seco	100 1516 1516
Algal Mat or Crust (B4)Recent Iron Reduction		4.11.20 · · · · · · · · · · · · · · · · · · ·
Iron Deposits (B5) Thin Muck Surface (C7		55-40A
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rema		
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D)
Field Observations: Surface Water Present? Yes X No Depth (inches)		
	201	
Water Table Present? Yes X No Depth (inches) Saturation Present? Yes X No Depth (inches)	The state of the later than the state of the	Yes X No
(includes capillary fringe)	Wedana Hydrology Frederic	\(\times_\times_\times_\)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:	<i>8</i>
		is a second seco
Remarks:		-1

Number of Dominant Species That Are OBL, FACW, or FAC: 7
That Are OBL, FACW, or FAC:
Total Number of Dominant Species Across All Strata: 7 (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 AC FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
Species Across All Strata: 7 (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 AC FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
That Are OBL, FACW, or FAC:
Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5 AC FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
Total % Cover of: Multiply by: OBL species 5 x 1 = 5 FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
OBL species 5 x 1 = 5 FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
AC FACW species 16 x 2 = 32 FAC species 90 x 3 = 270
FAC species 90 x 3 = 270
1 Tribe openies U
UPL species 0 x 5 = 0
Column Totals: 111 (A) 307 (B)
Prevalence Index = B/A = 2.77
Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
CW X 3 - Prevalence Index is ≤3.0 ¹
AC 4 - Morphological Adaptations (Provide supporting
CW data in Remarks or on a separate sheet)
CW Problematic Hydrophytic Vegetation (Explain)
BL 1Indicators of hydric soil and wetland hydrology must
BL be present, unless disturbed or problematic.
Definitions of Vegetation Strata:
Tree – Woody plants 3 in. (7.6 cm) or more in
diameter at breast height (DBH), regardless of height.
Sapling/shrub – Woody plants less than 3 in. DBH
and greater than or equal to 3.28 ft (1 m) tall.
and greater than or equal to 3.28 ft (1 m) tall.
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.
and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
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.
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
and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic

Sampling Point: CCE-SB-08

SOIL Sampling Point CCE-SB-08

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Eng	gineering	City/County: Lansing / Tom	pkins	Sampling Date: 6/5/2025			
Applicant/Owner: Beowulf		0.43149.0000.000.0000	State: NY	Sampling Point: CCE-SB-08			
Investigator(s): Nathan Turk Chris	stopher Nack	Section, Township	, Range:	<u> </u>			
Landform (hillside, terrace, etc.):		lief (concave, convex, none	10 C 350000	Slope %: 2			
Subregion (LRR or MLRA): LRR I		Long: -76.63	- 20-	Datum: NAD 83			
			IWI classification:	NA			
Soil Map Unit Name: Rock outcro		Value Screen		W			
D (07)	on the site typical for this time of year?	9 		xplain in Remarks.)			
Are Vegetation N, Soil N	, or Hydrology N significantly disturbe	ed? Are "Normal Circ	cumstances" preser	nt? Yes X No			
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area					
Hydric Soil Present?	Yes X No	within a Wetland?	Yes X	No			
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland S					
Remarks: (Explain alternative pro	ocedures here or in a separate report.)		-				
wet boring for W8							
				4			
HYDROLOGY				100			
Wetland Hydrology Indicators:		Secon	ndary Indicators (mi	inimum of two required)			
Primary Indicators (minimum of on	ne is required; check all that apply)	s	urface Soil Cracks	(B6)			
X Surface Water (A1)	Water-Stained Leaves (BS	9) <u>X</u> D	rainage Patterns (B	310)			
X High Water Table (A2)	Aquatic Fauna (B13)	M	loss Trim Lines (B1	6)			
X Saturation (A3)	Marl Deposits (B15)	D	ry-Season Water Ta	able (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C	(1)C	rayfish Burrows (C8	3)			
Sediment Deposits (B2)	Oxidized Rhizospheres or	Living Roots (C3)S	aturation Visible on	Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced Iron	n (C4)S	tunted or Stressed	Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6) G	Seomorphic Position	ı (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	s	hallow Aquitard (D3	3)			
Inundation Visible on Aerial In		s)M	licrotopographic Re	lief (D4)			
Sparsely Vegetated Concave Surface (B8) X FAC-Neutral Test (D5)							
Field Observations:							
	X No Depth (inches):						
	_X No Depth (inches): _			5000			
	X No Depth (inches):	0 Wetland Hydr	rology Present?	Yes _ X _ No			
(includes capillary fringe)			e and e				
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, prev	rious inspections), if availab	ole:				
Remarks:				-			
Normano.							

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Rhamnus cathartica	60	Yes	FAC	Number of Dominant Species
2. Salix nigra	10	No	OBL	That Are OBL, FACW, or FAC:(A)
3. 4.				Total Number of Dominant Species Across All Strata: (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC:(66.7%(A/B)
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15)	70	=Total Cover		Total % Cover of: Multiply by: OBL species 10 x 1 = 10
Rhamnus cathartica	40	Yes	FAC	FACW species 5 x 2 = 10
		-	2	FAC species 110 x 3 = 330
3.		• ——		FACU species 5 x 4 = 20
		-	-	UPL species 0 x 5 = 0
-		- 19		Column Totals: 130 (A) 370 (B)
6	-0	· (Prevalence Index = B/A = 2.85
	•	- (-	Hydrophytic Vegetation Indicators:
<i>1.</i>	40	=Total Cover		
Horb Stratum (Plat size: 5	40	- Total Cover		1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5	20	V	:	X 3 - Prevalence Index is ≤3.0¹
1. Vincetoxicum rossicum	30	Yes	rossicum	4 - Morphological Adaptations ¹ (Provide supporting
2Agrostis gigantea	5 -	- No	-FACW-	data in Remarks or on a separate sheet)
3. Rosa multiflora	5	- No	-FACU	
4. Geum canadense	5	- No	—FAC—	Problematic Hydrophytic Vegetation ¹ (Explain)
5. —Toxicodendron radicans 6.	- 5	- No-	—FAC—	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.		z (Definitions of Vegetation Strata:
8.	,			Tree – Woody plants 3 in. (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
11.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.				Herb – All herbaceous (non-woody) plants, regardless
	50	=Total Cover	2.1	of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft in
1.				height.
2		. ——	-	Hydrophytic
3				Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)	lk		

Sampling Point: CCE-SB-08

SOIL Sampling Point CCE-SB-08

		o the de				ator or co	confirm the absence of indicators.)
Depth (inches)	Matrix	%		k Feature		Loc ²	Texture Remarks
(inches)	Color (moist)	0	Color (moist)		Type ¹	LOC	5 d
0 - 6	10YR 4/1	100		—			Loamy/Clayey
6 - 12	10YR 6/2	95	10YR 5/6	5	<u>C</u>	_M_	Loamy/Clayey
12 - 18	10YR 6/3	60_	10YR 5/6	10	<u></u>	<u>M</u>	Loamy/Clayey
	10YR 4/2	30					
· <u></u>	2						
		(1)				19	
		-	-			-	
		—					
	1						
	19						
19		7,	9		2	10	
¹ Type: C=Co	ncentration, D=Deple	etion, RN	M=Reduced Matrix, M	IS=Masi	ked San	d Grains.	Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils ³ :
Histosol (1 15		Dark Surface (S	1 850			2 cm Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		Polyvalue Belov		ce (S8) (LRR R,	Coast Prairie Redox (A16) (LRR K, L, R)
— Black His	**************************************		MLRA 149B)	100000000			5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Thin Dark Surfa		A TOP THE PARTY OF		
	Layers (A5)	(444)	High Chroma S				Thin Dark Surface (S9) (LRR K, L)
	Below Dark Surface	(A11)	Loamy Mucky N			RK,L)	Iron-Manganese Masses (F12) (LRR K, L, R)
The same of the same	rk Surface (A12) odic (A17)		Loamy Gleyed X Depleted Matrix	. 200-200-20	F2)		Piedmont Floodplain Soils (F19) (MLRA 149) Red Parent Material (F21) (outside MLRA 14
	A 144A, 145, 149B)		X Depleted Matrix		6)		Very Shallow Dark Surface (F22)
	ucky Mineral (S1)		Depleted Dark				Other (Explain in Remarks)
2	eyed Matrix (S4)		Redox Depress				
	edox (S5)		Marl (F10) (LRI				³ Indicators of hydrophytic vegetation and
	Matrix (S6)		Red Parent Ma		21) (MLF	RA 145)	다면 모르게 되면 얼마면 된다. 말라면 전에 바로 보면 보고 하는 것은 모든 네트리트 보고 보는 것이다.
	energian produce en estre consentar.			10000000000000000000000000000000000000		***************************************	unless disturbed or problematic.
	ayer (if observed):						
Type: _	-b\;						Under Sell Bresset2
Depth (in	cnes):						Hydric Soil Present? Yes X No
Remarks:							

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineerin	ng	City/County: Lansing		Sam	pling Date: 6/5/2025		
Applicant/Owner:		State:	NY Sa	mpling Point: SB-CCE-10			
Investigator(s): Nathan Turk Christopher	Nack	Section, Tov	vnship, Range:	- 16 mm			
Landform (hillside, terrace, etc.): Lake p		elief (concave, conve			Slope %: 3		
Subregion (LRR or MLRA):		Long:	500		Datum:		
Soil Map Unit Name:			NWI classific	cation:			
Are climatic / hydrologic conditions on the	site typical for this time of year?	Yes_X	No	(If no, explai	n in Remarks.)		
Are Vegetation N , Soil N , or Hy	5/6/	ped? Are "Norm			Yes X No		
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
	******		ALAN SIGN	pa.			
Hydrophytic Vegetation Present?	Yes X No No	Is the Sampled Ar		No			
Hydric Soil Present? Wetland Hydrology Present?	Yes No X	within a Wetland? If yes, optional Wet		No	_X		
I DECORA SULA NESI NESI E	Yes No X	Il yes, optional vvec	land Site ib.				
Remarks: (Explain alternative procedure	s here or in a separate report.)						
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indic	ators (minimu	um of two required)		
Primary Indicators (minimum of one is red	quired; check all that apply)	<u>_</u>	Surface Soil	Cracks (B6)			
Surface Water (A1)	Water-Stained Leaves (B	39)	Drainage Pa	atterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)				
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (0	C1)	Crayfish Bur	rrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres o				ial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iro	on (C4)	Stunted or S	Stressed Plan	ts (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6)					
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery	S S 	ks)		aphic Relief (D4)		
Sparsely Vegetated Concave Surface	e (B8)		FAC-Neutral	I Test (D5)			
Field Observations:							
Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes					260 0 <u>000</u> 0		
Saturation Present? Yes	No X Depth (inches):	Wetland	d Hydrology Pre	sent?	Yes No _X_		
(includes capillary fringe)							
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre-	vious inspections), it a	available:				
Remarks:					-		
Nonano.							

Torra Startura (Bl. 1 i and a	Absolute	Dominant	Indicator	Bardina Tartandakat
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1. <u>Juglans nigra</u>	20	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2. Rhamnus cathartica	10	Yes	FAC_	That Are OBL, FACW, or FAC:3 (A)
3.				Total Number of Dominant
4				Species Across All Strata:5 (B)
5	ñ			Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 60.0% (A/B)
7				Prevalence Index worksheet:
	30	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species0 x 1 =0
1. Rhamnus cathartica	70	Yes	FAC	FACW species 10 x 2 = 20
2.		- W		FAC species 80 x 3 = 240
3.				FACU species 33 x 4 = 132
4.				UPL species 0 x 5 = 0
				Column Totals: 123 (A) 392 (B)
6		: ii—————		Prevalence Index = B/A = 3.19
7.		- 1		Hydrophytic Vegetation Indicators:
	70	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Hosh Stratum (Diet size: 5		- Total Cover		X 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5	40	V	E4 0)4/	——————————————————————————————————————
Fraxinus pennsylvanica	10	Yes	FACW	3 - Prevalence Index is ≤3.01
2. Lonicera morrowii		Yes	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Rosa multiflora	3	No	FACU_	
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5)			¹ Indicators of hydric soil and wetland hydrology must
6	,	. I.		be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8.		- 12 <u> </u>		Tree – Woody plants 3 in. (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12	2		EF 81	Herb – All herbaceous (non-woody) plants, regardless
*	23	=Total Cover	D N	of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)		5		Was devided Allowed to dear sector than 2.20 ft in
1.				Woody vines – All woody vines greater than 3.28 ft in height.
2.				
3.				Hydrophytic
				Vegetation Present? Yes X No
4.		=Total Cover		
Remarks: (Include photo numbers here or on a separ	-444\			
Remarks: (include prioto numbers here or on a separ	ate sneet.)			

Sampling Point: SB-CCE-10

SOIL Sampling Point SB-CCE-10

Profile Desc Depth	ription: (Describe to Matrix	the de		ument the x Feature		tor or co	onfirm the absence o	of indicate	ors.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Texture		Remark	S
0 - 10	10YR 4/4	100			-71-		Loamy/Clayey	Refusal	at 10". Shale	and gravel at
									10".	
		—		—						
3										
		—				—				
	P							-		
-				—				i.		
-										
-										
· · · · · · · · · · · · · · · · · · ·	1 2 - 25 1		*		-					
	<u> </u>						4			
	ncentration, D=Deple	tion, RM	=Reduced Matrix, M	IS=Masl	ked Sand	d Grains.			ining, M=Mat	
Hydric Soil I									matic Hydric	
Histosol	107		Dark Surface (S	9 850			+		(LRR K, L, M	
	pedon (A2)		Polyvalue Belo		ce (S8) (I	LRR R,			lox (A16) (LR	22 22 37
— Black His			MLRA 149B)	i newsener	/I DD D	MIDA				(LRR K, L, R)
	n Sulfide (A4) Layers (A5)		Thin Dark Surfa High Chroma S						Surface (S8) (e (S9) (LRR K	to the control of the
	Below Dark Surface	(A11)	Loamy Mucky I							(LRR K, L, R)
	rk Surface (A12)	(,,,,	Loamy Gleyed			, _/) (MLRA 149B)
The same of the same	odic (A17)		Depleted Matrix	0 240-0-00 85			The second secon			side MLRA 145)
	A 144A, 145, 149B)		Redox Dark Su		6)				k Surface (F2	
Sandy M	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (E	Explain in	Remarks)	
Sandy G	eyed Matrix (S4)		Redox Depress	sions (F8	B)					
	edox (S5)		Marl (F10) (LR				³ Indicate	ors of hydi	rophytic vege	tation and
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (MLF	RA 145)			gy must be p	
							unles	s disturbe	d or problema	itic.
	ayer (if observed):									
Type: _	Olganocowa CO								New York (1979)	
Depth (in	ches):						Hydric Soil Prese	nt?	Yes	No X
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: Lansing / Tompkins Sampling Date: 6/5/2025
Applicant/Owner: Beowulf	State: NY Sampling Point: SB-CCE-11
Investigator(s): Nathan Turk Christopher Nack	Section, Township, Range:
Landform (hillside, terrace, etc.): Lake plain Local	relief (concave, convex, none): concave Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 101	Long: -76.63467229 Datum: NAD 83
Soil Map Unit Name: Hudson-Cayuga silt loams, 2 to 6 percent slopes	NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
E (65)	
Are Vegetation N, Soil N, or Hydrology N significantly disturbed by Soil N, or Hydrology N significantly disturbed by Soil N, or Hydrology N, significant by Soil N, significant by Soil N, or Hydrology N, or Hydro	
Are Vegetation N, Soil N, or Hydrology N naturally problem	
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
ust having for WE	
wet boring for W5	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained Leaves ((B9) Drainage Patterns (B10)
X High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor	(C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced In	ron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)Recent Iron Reduction i	
Iron Deposits (B5) Thin Muck Surface (C7)	Section and action acti
Inundation Visible on Aerial Imagery (B7)Other (Explain in Rema	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches)	
Water Table Present? Yes X No Depth (inches)	
Saturation Present? Yes X No Depth (inches)	:0 Wetland Hydrology Present? Yes _X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections) if available:
Describe Necorded Data (stream gauge, monitoring well, acrial priotos, pr	evious inspections), if available.
Remarks:	

Sapling/Shrub Stratum (Plot size:	Total Cover Yes Yes Yes Yes Yes Yes	FACW OBL FAC	Number of Dominant Species That Are OBL, FACW, or FAC:
4.	Yes Yes Yes Yes Yes Yes	OBL FAC	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 27 x 1 = 27 FACW species 60 x 2 = 120 FAC species 10 x 3 = 30 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
6.	Yes Yes Yes Yes Yes Yes	OBL FAC	That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 27 x 1 = 27 FACW species 60 x 2 = 120 FAC species 10 x 3 = 30 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size:	Yes Yes Yes Yes Yes Yes	OBL FAC	Total % Cover of: Multiply by: OBL species 27 x 1 = 27 FACW species 60 x 2 = 120 FAC species 10 x 3 = 30 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation x 2 - Dominance Test is >50% x 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Sapling/Shrub Stratum (Plot size:	Yes Yes Yes Yes Yes Yes	OBL FAC	OBL species 27 $\times 1 = 27$ FACW species 60 $\times 2 = 120$ FAC species 10 $\times 3 = 30$ FACU species 0 $\times 4 = 0$ UPL species 0 $\times 5 = 0$ Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation $\times 2$ - Dominance Test is >50% $\times 3$ - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1.	Total Cover Yes Yes Yes Yes Yes Yes	OBL FAC	FACW species 60 x 2 = 120 FAC species 10 x 3 = 30 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation x 2 - Dominance Test is >50% x 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2.	Total Cover Yes Yes Yes Yes Yes Yes	OBL FAC	FAC species 10 x 3 = 30 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation x 2 - Dominance Test is >50% x 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
3.	Total Cover Yes Yes Yes Yes Yes Yes	OBL FAC	FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
4.	Total Cover Yes Yes Yes Yes Yes Yes	OBL FAC	UPL species 0 x 5 = 0 Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5	Yes Yes Yes Yes	OBL FAC	Column Totals: 97 (A) 177 (B) Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
6.	Yes Yes Yes Yes	OBL FAC	Prevalence Index = B/A = 1.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7	Yes Yes Yes Yes	OBL FAC	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)	Yes Yes Yes Yes	OBL FAC	1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5) 1. Agrostis gigantea 50 2. Scirpus atrovirens 20 3. Solidago rugosa 10 4. Fraxinus pennsylvanica 10 5. Eleocharis acicularis 5	Yes Yes Yes Yes	OBL FAC	 X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1. Agrostis gigantea 50 2. Scirpus atrovirens 20 3. Solidago rugosa 10 4. Fraxinus pennsylvanica 10 5. Eleocharis acicularis 5	Yes Yes Yes	OBL FAC	x 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1.Agrostis gigantea502.Scirpus atrovirens203.Solidago rugosa104.Fraxinus pennsylvanica105.Eleocharis acicularis5	Yes Yes Yes	OBL FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Scirpus atrovirens 20 3. Solidago rugosa 10 4. Fraxinus pennsylvanica 10 5. Eleocharis acicularis 5	Yes Yes Yes	OBL FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Solidago rugosa 10 4. Fraxinus pennsylvanica 10 5. Eleocharis acicularis 5	Yes Yes	FAC	data in Remarks or on a separate sheet)
4.Fraxinus pennsylvanica105.Eleocharis acicularis5	Yes		Drahlamatia Undershutia Vasatatian 1 (Evalain)
5. Eleocharis acicularis 5	<u></u>	FACW	Problematic Hydrophytic Vedetation (Explain)
	Yes	OBL	
0. Carex Dellila	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.	·	-	Definitions of Vegetation Strata:
-	-		
9.			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.	<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	Total Cover	E2 E2	of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)			Woody vines – All woody vines greater than 3.28 ft in
1			height.
2.	See See		
3.			Hydrophytic
4.			Vegetation Present? Yes X No
	Total Cover		<u>x</u>
Remarks: (Include photo numbers here or on a separate sheet.)	TOTAL COVE		

Sampling Point: SB-CCE-11

SOIL Sampling Point SB-CCE-11

Profile Descr Depth	iption: (Describe to Matrix	o the de		iment the Keature		ator or co	onfirm the absence	of indicato	rs.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	.
0 - 6	10YR 4/2	100			-71		Loamy/Clayey	(a)		-
0.40	40)/D 4/0		10)/D 5/0				· · · · · · · · · · · · · · · · · · ·	01 1 /		
6 - 18	10YR 4/3	95	10YR 5/6		<u> </u>	<u>M</u>	Loamy/Clayey	Shale/gra	avel in second	I soil horizon
								:0-		
								35		
-	- 32							1		
								7		
				(1		
										
										-73
		_		—				8		
· · · · · · · · · · · · · · · · · · ·			# ************************************		-	(1.		.सी.
			2		-			<u> </u>	92 000-11110-1710-	
		etion, RN	/I=Reduced Matrix, N	1S=Mas	ked San	d Grains.			ning, M=Matrix	
Hydric Soil Ir									matic Hydric	The state of the s
Histosol (10		Dark Surface (S	9 850			H 		LRR K, L, ML	
	pedon (A2)		Polyvalue Belo		ce (S8) (LRR R,			ox (A16) (LRR	22 22 37
— Black Hist	TO SHIP OF THE STREET		MLRA 149B	i newserier					or Peat (S3) (L	
	Sulfide (A4)		Thin Dark Surfa		A INC. THE LEWIS CO.				Surface (S8) (L	
	Layers (A5)	****	High Chroma S						(S9) (LRR K,	
	Below Dark Surface	(A11)	Loamy Mucky I			RK,L)				(LRR K, L, R)
The same of the same	k Surface (A12)		Loamy Gleyed	o 200000000 55	F2)		A CONTRACTOR OF THE PROPERTY O	The second second		(MLRA 149B)
	odic (A17)		Depleted Matrix		·c)					side MLRA 145)
	144A, 145, 149B) ucky Mineral (S1)		X Redox Dark Su Depleted Dark					Explain in R	Surface (F22	J
	eyed Matrix (S4)		Redox Depress				Other (Expiaiii iii n	terriarks)	
Sandy Re			Marl (F10) (LR		3)		³ Indica	tors of hydro	ophytic vegeta	ation and
	Matrix (S6)				21) (MI F	RΔ 145)				
	viatrix (00)		Red Parent Material (F21) (MLRA 145)				wetland hydrology must be present, unless disturbed or problematic.			
Restrictive La	ayer (if observed):						I drillot	oo alotarboa	от ртовіотнас	10.
Type:	D 81 124									
- · · · · · -	ches):						Hydric Soil Prese	ant?	Yes X	No
N 896							Tryunc 3011 Frest	ont:		МО
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept E	Engineering	City/County: Lansing	Sampling Date: 6/5/2025						
Applicant/Owner:		State:	Sampling Point: SB-CCE-12						
Investigator(s): Christopher Nac	ck Nathan Turk	Section, Township, Range:							
Landform (hillside, terrace, etc.):		elief (concave, convex, none): none	Slope %: 2						
Subregion (LRR or MLRA):		Long:	Datum:						
Soil Map Unit Name:		NWI classificat							
	ns on the site typical for this time of year?	Yes X No (I	f no, explain in Remarks.)						
25 (6.2)	, or Hydrology N significantly disturb								
1005									
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
	Ī								
Hydrophytic Vegetation Present		Is the Sampled Area	N- V						
Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X	within a Wetland? Yes If yes, optional Wetland Site ID:	No_X_						
LICENTA AND ANTAL ASSET	procedures here or in a separate report.)	II yes, optional Wetland Site ID.							
Remains. (Explain alternative p	Total transfer of in a separate report,								
Upland boring outside W5									
HYDROLOGY		200 - 200 - 200 - 80 - 80 - 80 - 80 - 80	79 - Country 874-0 (8) 4800 (1)						
Wetland Hydrology Indicators			ors (minimum of two required)						
	one is required; check all that apply)	Surface Soil C							
— Surface Water (A1)	Water-Stained Leaves (B	1 							
— High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)							
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)							
Water Marks (B1)	Hydrogen Sulfide Odor (C								
Sediment Deposits (B2)	Oxidized Rhizospheres o		ble on Aerial Imagery (C9)						
— Drift Deposits (B3)	Presence of Reduced Iron	and the American recovers the second	essed Plants (D1)						
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction in Thin Muck Surface (C7)								
Inundation Visible on Aerial									
Sparsely Vegetated Concav		FAC-Neutral T							
Field Observations:	e duriace (Bb)		631 (50)						
PRESENTATION OF THE PROPERTY O	es No X Depth (inches):								
	es No X Depth (inches):								
	es No X Depth (inches):		nt? Yes No X						
(includes capillary fringe)	, , , , , , , , , , , , , , , , , , ,		<u></u>						
	m gauge, monitoring well, aerial photos, prev	vious inspections), if available:							
Ø5.	973 TC 97 - 1797 30 20 20 500200	51 050							
Remarks:									

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Juniperus virginiana	20	Yes	FACU	
Juglans nigra	5	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
3.	#; =3			Total Niverbas of Dancinson
4.				Total Number of Dominant Species Across All Strata: (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
	25	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:15)				OBL species 3 x 1 = 3
1. Juniperus virginiana	10	Yes	FACU	FACW species 30 x 2 = 60
2.			20 20	FAC species 0 x 3 = 0
3.				FACU species 60 x 4 = 240
4.				UPL species 0 x 5 = 0
5.				Column Totals: 93 (A) 303 (B)
6		· ·		Prevalence Index = B/A = 3.26
7.	<u> </u>	· 8 		Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				2 - Dominance Test is >50%
1. Agrostis gigantea	30	Yes	FACW	3 - Prevalence Index is ≤3.0 ¹
		Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
2 Carey nellita	3	No	OBL	data in Remarks or on a separate sheet)
		• 0	UPL	Drahlamatia III Idraabatia Volastatian 1 (Evalgia)
4. Vicia caroliniana	3	No	— UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
5.				¹ Indicators of hydric soil and wetland hydrology must
6.			-	be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8		. 13	,	Tree – Woody plants 3 in. (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11	9		-	and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	58	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2.		<u> </u>		
3.				Hydrophytic Vegetation
4.				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			
, , , , , , , , , , , , , , , , , , , ,				

Sampling Point: SB-CCE-12

SOIL Sampling Point SB-CCE-12

Profile Desc Depth	ription: (Describe to Matrix	o the de		iment th x Featur		ator or co	onfirm the absence of	f indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remar	ks	
0 - 10	10YR 4/3	100			Туро		Loamy/Clayey	roma	NO .	
	S				* -					
10 - 18	10YR 4/3	98	10YR 5/6		<u> </u>	_M_	Loamy/Clayey			
					-	·	 			
	i						:			
	· · · · · · · · · · · · · · · · · · ·									
	P 		7						-	
3.	17	10.	- Ti	\$7			3 3			
				—	_					
· · · · · · · · · · · · · · · · · · ·	19-				-		 	;	र्गीः	
					-					
¹ Type: C=Co	ncentration, D=Deple	etion, RN	M=Reduced Matrix, M	1S=Mas	ked San	d Grains.	² Location: Pl	L=Pore Lining, M=Ma	trix.	
Hydric Soil I	ndicators:							or Problematic Hydri		
Histosol	1 1/2		Dark Surface (\$	9 880			H 	ick (A10) (LRR K, L, I		
	ipedon (A2)		Polyvalue Belo		ce (S8) (LRR R,		rairie Redox (A16) (LR		
— Black His			MLRA 149B)	i nesamo		- particolar		cky Peat or Peat (S3)		
	n Sulfide (A4)		Thin Dark Surfa					e Below Surface (S8)		
	Layers (A5)		High Chroma S					k Surface (S9) (LRR I		
	Below Dark Surface	(A11)	Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2)				Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)			
	rk Surface (A12)			o 200-0-00 85	F2)		A CONTRACTOR OF THE PARTY OF TH			
	odic (A17)		Depleted Matrix Redox Dark Su	ACCEPT COMP.	·6)			ent Material (F21) (ou allow Dark Surface (F2		
	A 144A, 145, 149B) ucky Mineral (S1)		Depleted Dark					xplain in Remarks)	22)	
2	leyed Matrix (S4)		Redox Depress				Outer (E.	Apiairi ir remarks)		
	edox (S5)		Marl (F10) (LR		5)		3Indicato	rs of hydrophytic vege	etation and	
	Matrix (S6)		Red Parent Ma		21) (MLF	RA 145)		d hydrology must be		
—	()							disturbed or problem		
Restrictive L	ayer (if observed):									
Type:	. ,									
Depth (in	ches):						Hydric Soil Preser	nt? Yes	No X	
Remarks:							ints			
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City	y/County:	Sampling Date: 6/6/2025
Applicant/Owner:		State: NY	Sampling Point: CCE-SB-13
Investigator(s): Nathan Turk		Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relie	of (concave, convex, none): concave	Slope %: 2
Subregion (LRR or MLRA):		W 10 10 10 10 10 10 10 10 10 10 10 10 10	Datum:
Soil Map Unit Name:	Lat.	NWI classification:	
Are climatic / hydrologic conditions on the site	tunical for this time of year?		avalain in Damarke \
	• •		explain in Remarks.)
Are Vegetation N, Soil N, or Hydro			
Are Vegetation N, Soil N, or Hydro	logy N naturally problematic?	(If needed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing sampling	ng point locations, transects, in	portant features, etc.
Hydrophytic Vegetation Present?	Yes X No Is	s the Sampled Area	
Hydric Soil Present?		within a Wetland? Yes X	No
Wetland Hydrology Present?	Yes X No If	f yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures he	ere or in a separate report.)		
9 At 10 MW 25 to 100m to 10 to	3 57 Al 36 500 Seminores 65,000 m20		
			4
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (r	ninimum of two required)
Primary Indicators (minimum of one is require	ed; check all that apply)	Surface Soil Cracks	s (B6)
X Surface Water (A1)	Water-Stained Leaves (B9)	X Drainage Patterns	10
X High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (E	DOMES COMPANIE
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	7. 50 C C C C C C C C C C C C C C C C C C
— Water Marks (B1)	Hydrogen Sulfide Odor (C1)		
Sediment Deposits (B2)	Oxidized Rhizospheres on L		on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C		100 C
Algal Mat or Crust (B4)	Recent Iron Reduction in Till		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (I	N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Inundation Visible on Aerial Imagery (B7		Microtopographic F	
Sparsely Vegetated Concave Surface (B	18)	X FAC-Neutral Test (D5)
Field Observations:	N		
Surface Water Present? Yes X	No Depth (inches): _0.		
Water Table Present? Yes X Saturation Present? Yes X	No Depth (inches):	AND	Voc. v. No.
Saturation Present? Yes X (includes capillary fringe)	No Depth (inches):(wettand nydrology Fresent:	YesX_ No
Describe Recorded Data (stream gauge, mor	nitoring well aerial photos, previou	us inspections) if available:	1
Describe Noted Sala (S. Sala Sala Sala Sala Sala Sala Sala Sa	miloting from aorian priotos, pro-	da lilapooliolia, il dianable.	
Remarks:			

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

A I I 4 -	D!	In diameter	T
Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
10	Yes	FACW	Number of Dominant Species
5	Yes	FACU	That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata: 6 (B)
			Percent of Dominant Species
2			That Are OBL, FACW, or FAC: 83.3% (A/E
			Prevalence Index worksheet:
15	=Total Cover		Total % Cover of: Multiply by:
			OBL species 0 x 1 = 0
40	Yes	FAC	FACW species 85 x 2 = 170
15	Yes	FACW	FAC species 83 x 3 = 249
5	No	FACU	FACU species 25 x 4 = 100
5	No	FACU	UPL species 0 x 5 = 0
	. 1		Column Totals: 193 (A) 519 (E
	: (Prevalence Index = B/A = 2.69
			Hydrophytic Vegetation Indicators:
65	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
-			X 2 - Dominance Test is >50%
45	Yes	FACW	x 3 - Prevalence Index is ≤3.0 ¹
			4 - Morphological Adaptations ¹ (Provide supporti
			data in Remarks or on a separate sheet)
	• 0		Problematic Hydrophytic Vegetation ¹ (Explain)
	4 (
0.	5 ()		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
,,			Definitions of Vegetation Strata:
	- 140	170	Definitions of Vegetation Strata.
,	-		Tree – Woody plants 3 in. (7.6 cm) or more in
	• (diameter at breast height (DBH), regardless of heigh
			Sapling/shrub – Woody plants less than 3 in. DBH
9		-	and greater than or equal to 3.28 ft (1 m) tall.
113	=Total Cover	-	Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft
×			height.
			Hydrophytic
			Vegetation Present? Yes X No
			I Flesellti les A NO
	10 5 15 40 15 5 5 5 65 45 30 15 10 5 5 3	10 Yes 5 Yes 15 =Total Cover 40 Yes 15 Yes 5 No 5 No 65 =Total Cover 45 Yes 30 Yes 15 No 10 No 5 No 5 No 5 No	10

SOIL INDICATORS FLAGGED FOR QAQC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	c Featur	es					
(inches)	Color (moist)	_ %_	Color (moist)	_%_	Type ¹	Loc ²	Texture Remarks			
0 - 3	10YR 4/1	100					Loamy/Clayey			
3 - 10	10YR 4/2	95	10YR 5/6	_5	<u></u>	_ <u>M</u>	Loamy/Clayey			
10 - 18	10YR 4/3	90	10YR 5/6		<u>C</u>	<u>M</u>	Loamy/Clayey			
			-							
	-					-				
		5 	· ·			8 				
	10 A			0		13 13 15 15 15 15 15 15 15 15 15 15 15 15 15				
	-			_						
		-				-				
) 				-	-				
¹Type: C=Cc	oncentration, D=Deple	etion RM	=Reduced Matrix M	 IS=Mas	ked San		² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil I		Cuon, raiv	-reduced Wattix, W	io-ivias	keu oan	d Oranis.	Indicators for Problematic Hydric Soils ³ :			
Histosol			Dark Surface (S	S7)			2 cm Muck (A10) (LRR K, L, MLRA 149B)			
No. 10	ipedon (A2)		Polyvalue Belo	1 185.0	ce (S8) (LRR R,	Coast Prairie Redox (A16) (LRR K, L, R)			
Black His			MLRA 149B				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
I − • All Commonweal College Colleg						149B) Polyvalue Below Surface (S8) (LRR K, L)				
Stratified	Layers (A5)		High Chroma S	ands (S	611) (LRI	R K, L)	Thin Dark Surface (S9) (LRR K, L)			
	Below Dark Surface	(A11)	Loamy Mucky I	Mineral	(F1) (LR	RK, L)	Iron-Manganese Masses (F12) (LRR K, L, R)			
	rk Surface (A12)		Loamy Gleyed		F2)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
	oodic (A17)		Depleted Matri				Red Parent Material (F21) (outside MLRA 14			
	A 144A, 145, 149B)		Redox Dark Su				Very Shallow Dark Surface (F22)			
O	ucky Mineral (S1)		X Depleted Dark				Other (Explain in Remarks)			
	leyed Matrix (S4)		Redox Depress		8)		31			
	edox (S5) Matrix (S6)		Marl (F10) (LR		24) /841 6	DA 44E\	³ Indicators of hydrophytic vegetation and			
Stripped	Matrix (S6)		Red Parent Ma	teriai (F	21) (WILI	KA 145)	wetland hydrology must be present, unless disturbed or problematic.			
	ayer (if observed):									
Type: _										
Depth (in	nches):						Hydric Soil Present? Yes X No			
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: Lan	sing/Tompkins	Sampling Date: 6/9/2025
Applicant/Owner: Beowulf		State: NY	Sampling Point: CCE-SB-14
Investigator(s): Nathan Turk Christopher Nack	Section,	Township, Range: Lansing	
Landform (hillside, terrace, etc.): Hillside	Local relief (concave, co	onvex, none): concave	Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 101		ng: -76.62953	Datum: NAD 83
Soil Map Unit Name: Hudson-Cayuga silt loam 6 t	-	NWI classification:	NA
Are climatic / hydrologic conditions on the site typical	al for this time of year? Yes _	X No (If no, e	explain in Remarks.)
Are Vegetation N , Soil N , or Hydrology	N significantly disturbed? Are "N	Normal Circumstances" prese	nt? Yes X No
Are Vegetation N , Soil N , or Hydrology		eded, explain any answers in	
SUMMARY OF FINDINGS – Attach site		1/1 1/1 1/2	10
	V No In the Comple		
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes			Ma
Wetland Hydrology Present? Yes	C weeks to the contract the con	wetland Site ID:	No
Remarks: (Explain alternative procedures here or		Wording One 12.	
Remarks: (Explain alternative procedures here of	in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (m	inimum of two required)
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil Cracks	(B6)
X Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
X High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C	8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C	C3) Saturation Visible or	n Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed	Plants (D1)
	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Positio	n (D2)
	Thin Muck Surface (C7)	Shallow Aquitard (D	13.47.0
	Other (Explain in Remarks)	Microtopographic Re	
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (E	05)
Field Observations:			
Surface Water Present? Yes X No			
	Depth (inches): 10		5060 MM60
Saturation Present? Yes X No	Depth (inches): 0 We	tland Hydrology Present?	Yes No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspections	s), if available:	
Domodra			
Remarks:			

Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Acer rubrum	10	Yes	FAC	Number of Dominant Species
2	-			That Are OBL, FACW, or FAC:3(A)
3.				Total Number of Dominant
4	,			Species Across All Strata:3(B)
5				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC:(A/B)
7		. 1 <u> </u>		Prevalence Index worksheet:
	10	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species40 x 1 =40
1. Acer rubrum	10	Yes	FAC	FACW species 10 x 2 = 20
2.				FAC species25 x 3 =75
3.	2	-		FACU species0 x 4 =0
4.	-			UPL species0 x 5 =0
5.		÷ (i————————————————————————————————————		Column Totals: 75 (A) 135 (B)
6.	-			Prevalence Index = B/A = 1.80
7				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5				X 2 - Dominance Test is >50%
1. Carex vulpinoidea	30	Yes	OBL_	x 3 - Prevalence Index is ≤3.0¹
2. Bidens frondosa	10	No	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Scirpus atrovirens		No No	OBL	
4. Solidago rugosa	5	No No	FAC_	Problematic Hydrophytic Vegetation ¹ (Explain)
5.				¹Indicators of hydric soil and wetland hydrology must
6.			-	be present, unless disturbed or problematic.
7.	-	-		Definitions of Vegetation Strata:
8.	y 			Tree – Woody plants 3 in. (7.6 cm) or more in
9.	-	-		diameter at breast height (DBH), regardless of height.
10.	-			Sapling/shrub – Woody plants less than 3 in. DBH
11	-	-		and greater than or equal to 3.28 ft (1 m) tall.
12	55	=Total Cover	-	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)		- Total Cover		of size, and woody plants less than 3.20 it tall.
				Woody vines – All woody vines greater than 3.28 ft in height.
2.	-			neight.
-	-	· ——		Hydrophytic
4.				Vegetation Present? Yes X No No
7'		=Total Cover		105 <u>X</u> 10
Remarks: (Include photo numbers here or on a separ	rate sheet \			
Remarks. (include prioto numbers here of on a separ	ate sneet.)			

CCE-SB-14

Sampling Point:

Depth	Matrix	, the dep		reatur		ator or C	confirm the absence of indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Texture Remarks			
0 - 3	10YR 4/1	95	10YR 5/6		С	M	Mucky Loam/Clay			
3 - 10	10YR 4/2	90	10YR 5/6	10	С	M	Loamy/Clayey	- 10		
10 - 18	10YR 4/3	85	10YR 5/6	15	С	M	Loamy/Clayey			
								_		
	18 38									
	2 1	— -		—	-			_		
	P=									
	15 33 1	A 10								
				—						
	: 	—				_		_		
	1	— -			-			-		
	g									
	ncentration, D=Deple	tion, RM	Reduced Matrix, M	IS=Mas	ked San	d Grains				
Hydric Soil I			Dark Surface (6	27)			Indicators for Problematic Hydric Soils ³ :			
Histosol	ipedon (A2)		Dark Surface (S Polyvalue Belov	1 3850	ce (S8) (I DD D	2 cm Muck (A10) (LRR K, L, MLRA 1498 Coast Prairie Redox (A16) (LRR K, L, R))		
Black His		-	MLRA 149B)		JC (00) (I	LICIX IX,	5 cm Mucky Peat or Peat (S3) (LRR K, L,	R)		
	n Sulfide (A4)		Thin Dark Surfa		(LRR R	, MLRA		/		
	Layers (A5)	-	— High Chroma S				Thin Dark Surface (S9) (LRR K, L)			
	Below Dark Surface	(A11)	Loamy Mucky N				Iron-Manganese Masses (F12) (LRR K, L	, R)		
Thick Da	rk Surface (A12)		Loamy Gleyed				Piedmont Floodplain Soils (F19) (MLRA 1			
Mesic Sp	odic (A17)	_	X Depleted Matrix	c (F3)			Red Parent Material (F21) (outside MLR/	145)		
(MLR	A 144A, 145, 149B)		Redox Dark Su	rface (F	6)		Very Shallow Dark Surface (F22)			
	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (Explain in Remarks)			
	leyed Matrix (S4)		Redox Depress		3)					
	edox (S5)		Marl (F10) (LRF				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
Stripped	Matrix (S6)	-	Red Parent Ma	terial (F	21) (MLF	RA 145)				
Restrictive I	.ayer (if observed):						unless disturbed or problematic.			
Type:	ayer (ii observed).									
Depth (in	ches):						Hydric Soil Present? Yes X No	_		
Remarks:	V-1									

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engine	eering	City/County: Lansing,	/Topkins	Sampling Date: 6/9/2025			
Applicant/Owner: Beowulf			State: NY	Sampling Point: CCE-SB-15			
Investigator(s): Nathan Turk Christop	ner Nack	Section, Tow	vnship, Range:Lansing				
Landform (hillside, terrace, etc.): Hill:		elief (concave, conve		Slope %: 2			
Subregion (LRR or MLRA): LRR L, M		670	-76.62884	Datum: NAD 83			
Soil Map Unit Name: Hudson-Cayuga		Long.	NWI classification:	NA NA			
*		V V		¥			
Are climatic / hydrologic conditions on	(5)	Yes X		explain in Remarks.)			
Are Vegetation N, Soil N, o	Hydrology N significantly disturb	ed? Are "Norm	al Circumstances" prese	ent? Yes X No			
Are Vegetation N, Soil N, o	Hydrology N naturally problemat	tic? (If needed	, explain any answers in	Remarks.)			
SUMMARY OF FINDINGS – A	ttach site map showing sam	pling point locat	ions, transects, im	portant features, etc.			
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Ar	ea				
Hydric Soil Present?	Yes X No	within a Wetland?		No			
Wetland Hydrology Present?	Yes X No	If yes, optional Wet	and a second of the second sec				
Remarks: (Explain alternative proced	ures here or in a separate report.)						
Sec. 11 27 350 Gently Between No. 10 10 10 10 10							
Wet boring for W11							
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indicators (n	ninimum of two required)			
Primary Indicators (minimum of one is	required; check all that apply)		Surface Soil Cracks	s (B6)			
X Surface Water (A1)	Water-Stained Leaves (B	9)	Drainage Patterns ((B10)			
X High Water Table (A2)	Aquatic Fauna (B13)	20	Moss Trim Lines (B	16)			
X Saturation (A3)	Marl Deposits (B15)		Dry-Season Water	A STATE OF THE STA			
— Water Marks (B1)	Hydrogen Sulfide Odor (C	33	Crayfish Burrows (C				
Sediment Deposits (B2)	Oxidized Rhizospheres o			n Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced Iro	and the Management and the Control of the Control o	Stunted or Stressed	parameter (CCC) 170			
Algal Mat or Crust (B4)	Recent Iron Reduction in						
Iron Deposits (B5) Inundation Visible on Aerial Imag	Thin Muck Surface (C7)						
Sparsely Vegetated Concave Sur		(5)	X FAC-Neutral Test (I	8 8			
	lace (Bb)	1	X 170-Neutral Test (I	53)			
Field Observations: Surface Water Present? Yes X	No. Donth (inches):	.					
Surface Water Present? Yes X Water Table Present? Yes X							
Saturation Present? Yes X			d Hydrology Present?	Yes X No			
(includes capillary fringe)			,	<u>~</u>			
	ge, monitoring well, aerial photos, pre-	vious inspections), if a	available:				
Remarks:							

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC:(A)
3. 4.				Total Number of Dominant Species Across All Strata:4(B)
5	6	. —		Percent of Dominant Species
6				That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)		.,		OBL species x 1 = 15
1. Rhamnus cathartica	25	Yes	FAC_	FACW species 40 x 2 = 80
2.				FAC species 25 x 3 = 75
3.	-	-	-	FACU species x 4 = 80
4.	-			UPL species 0 x 5 = 0
5				Column Totals: 100 (A) 250 (B)
6.	<u> </u>			Prevalence Index = B/A = 2.50
7		-		Hydrophytic Vegetation Indicators:
	25	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1. Parthenocissus inserta	20	Yes	<u>FACU</u>	x 3 - Prevalence Index is ≤3.01
2. Onoclea sensibilis	20	Yes	FACW_	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Carex vulpinoidea	15	Yes	OBL_	
4. Bidens frondosa	10	<u>No</u>	FACW_	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Impatiens capensis	10	No	FACW_	¹ Indicators of hydric soil and wetland hydrology must
6.		-	-	be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8	,			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.				
11.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.	9		- 4	Mark All harbonous (non woods) plants regardless
	75	=Total Cover	e k	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)	A.	6		Washings Allowards sizes are too the 2.20 ft in
1.				Woody vines – All woody vines greater than 3.28 ft in height.
2.				
3.				Hydrophytic
4.		-		Vegetation Present? Yes X No
¹³² = = = = = = = = = = = = = = = = = = =		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet)			1
Tromano. (modae priote nambore nore er en a separ	ato oncot.)			

Sampling Point: CCE-SB-15

Profile Desc Depth	ription: (Describe to Matrix	the de		iment the Keature		ator or c	onfirm the absence of i	ndicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 3	10YR 4/1	95	10YR 5/6	5	C	M	Mucky Loam/Clay	Romano
3 - 10	10YR 4/2	90	10YR 5/6	10	C		Loamy/Clayey	
	-							
10 - 18	10YR 4/3	85	10YR 5/6		<u> </u>	<u>M</u>	Loamy/Clayey	
-	3.							
	*			—		$\overline{}$		
	n		-					
			t e = =			-		
	8 	—	·					
	3		 	-	-			
	ncentration, D=Deple	tion, RN	/I=Reduced Matrix, M	IS=Mas	ked San	d Grains.		Pore Lining, M=Matrix.
Hydric Soil I								Problematic Hydric Soils ³ :
Histosol	1		Dark Surface (S	9 889	(00) (+	(A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		— Polyvalue Belo		ce (58) (LKK K,		rie Redox (A16) (LRR K, L, R)
Black His	n Sulfide (A4)		Thin Dark Surfa	i mesanin	/I PP P	MIRA		ty Peat or Peat (S3) (LRR K, L, R) Below Surface (S8) (LRR K, L)
	Layers (A5)		High Chroma S		A TOP THE PARTY OF			Surface (S9) (LRR K, L)
	Below Dark Surface	(A11)	Loamy Mucky I					anese Masses (F12) (LRR K, L, R)
	rk Surface (A12)	, ,	Loamy Gleyed			, _,		Floodplain Soils (F19) (MLRA 149B
Mesic Sp	odic (A17)		X Depleted Matrix	x (F3)			Red Paren	t Material (F21) (outside MLRA 14
(MLR	A 144A, 145, 149B)		Redox Dark Su	rface (F	6)		Very Shallo	ow Dark Surface (F22)
2	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (Exp	lain in Remarks)
	eyed Matrix (S4)		Redox Depress		B)		3	
	edox (S5)		Marl (F10) (LRI		04) (88) 8			of hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (MLI	RA 145)		hydrology must be present,
Postrictive I	ayer (if observed):						uniess d	isturbed or problematic.
Type:	ayer (ii observed).							
Depth (in	chae).						Hydric Soil Present	? Yes ^X No
107 8890							nyunc son Fresent	res / No
Remarks:								

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	(City/County: Lansing	Sampling Date: 6/9/2025
Applicant/Owner:		State:	NY Sampling Point: CCE-SB-16
Investigator(s): Nathan Turk Christopher Nac	ck	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local re	elief (concave, convex, none): concav	e Slope %: 2
Subregion (LRR or MLRA):		Long:	Datum:
Soil Map Unit Name:		NWI classific	
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes No	(If no, explain in Remarks.)
Are Vegetation N , Soil N , or Hydro	(5)	· · · · · · · · · · · · · · · · · · ·	
Are Vegetation N , Soil N , or Hydro			
SUMMARY OF FINDINGS – Attach	57.500 - 1 .0 55.00		10
Undrankytia Vagatatian Progent2	Van V. Na	In the Complete Area	
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No No	Is the Sampled Area within a Wetland? Yes	_X No
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures he			
HYDROLOGY			
		Canada da da	-t (i-if ti d)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required)	rad: chack all that apply)		ators (minimum of two required) Cracks (B6)
X Surface Water (A1)	Water-Stained Leaves (B		8
X High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim L	7
X Saturation (A3)	Marl Deposits (B15)		Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C		
Sediment Deposits (B2)	Oxidized Rhizospheres or		isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6) Geomorphic	Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	itard (D3)
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remark	s)Microtopogra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B	38)	X FAC-Neutra	Test (D5)
Field Observations:			
Surface Water Present? Yes X	No Depth (inches): _		
Water Table Present? Yes X	No Depth (inches): _	The second secon	
Saturation Present? Yes X	No Depth (inches): _	0 Wetland Hydrology Pre	sent? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well serial photos prev	vious inspections) if available:	
Describe Necorded Data (Stream gauge, mo	filloring well, aeriai priotos, prev	rious inspections), ii available.	
Remarks:			

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1	9.			Number of Dominant Species
2.			-	That Are OBL, FACW, or FAC:6 (A)
3				Total Number of Dominant
4			-	Species Across All Strata: 7 (B)
5				Percent of Dominant Species
6.	-		-	That Are OBL, FACW, or FAC: 85.7% (A/B)
7	iii o			Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:15)				OBL species x 1 = 10
1. Fraxinus pennsylvanica	5	Yes	FACW_	FACW species 25 x 2 = 50
2. Rhamnus cathartica	5	Yes	FAC	FAC species15 x 3 =45
3				FACU species10 x 4 =40
4	0			UPL species0 x 5 =0
5		F (2		Column Totals: 60 (A) 145 (B)
6.				Prevalence Index = B/A = 2.42
7.				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
Bidens frondosa	10	Yes	FACW	X 3 - Prevalence Index is ≤3.0 ¹
2. Onoclea sensibilis	10	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting
3. Parthenocissus quinquefolia	10	Yes	FACU	data in Remarks or on a separate sheet)
4. Solidago rugosa	10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Scirpus atrovirens	10	Yes	OBL	
6.	-10	100		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	35 - 2	: 0 		Definitions of Vegetation Strata:
8.				Definitions of Vegetation Strata.
9.	-			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
· · · · · · · · · · · · · · · · · · ·				diameter at breast neight (DBH), regardless of neight.
10.				Sapling/shrub – Woody plants less than 3 in. DBH
11	-97	-	-	and greater than or equal to 3.28 ft (1 m) tall.
12			-	Herb – All herbaceous (non-woody) plants, regardless
	50	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:30)				Woody vines - All woody vines greater than 3.28 ft in
1.				height.
2.				Hydrophytic
				Vegetation
3.				
				Present?

Sampling Point: CCE-SB-16

SOIL INDICATORS FLAGGED FOR QAQC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	Featur	es					
(inches)	Color (moist)	%	Color (moist)	_%_	Type ¹	Loc ²	Texture Remarks			
0 - 3	10YR 4/1	95	10YR 5/6	_5_	<u></u>	<u>M</u>	Mucky Loam/Clay			
3 - 10	10YR 4/2	90	10YR 5/6	_10_	<u>C</u>	<u>M</u>	Loamy/Clayey			
10 - 18	10YR 4/3	<u>85</u>	10YR 5/6	_15_	<u>C</u>	<u>M</u>	Loamy/Clayey			
						-				
	1			()		9 				
1						·				
	18 XX		F							
	-									
	1= ====================================							- 10		
¹Type: C=Co	oncentration, D=Deple			 IS=Mas	ked San	d Grains	s. ² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil I		don, rav	i-reduced Matrix, W	IO-IVIGS	Neu Gari	u Orams.	Indicators for Problematic Hydric Soils ³ :			
Histosol			Dark Surface (S	S7)			2 cm Muck (A10) (LRR K, L, MLRA 149	в)		
· · · · · · · · · · · · · · · · · · ·	ipedon (A2)		Polyvalue Belov	1 135.0	ce (S8) (LRR R,		25		
Black His			MLRA 149B)		1871 1171		5 cm Mucky Peat or Peat (S3) (LRR K, I			
Hydrogei	n Sulfide (A4)		Thin Dark Surfa	ace (S9)	(LRR R	, MLRA	149B) Polyvalue Below Surface (S8) (LRR K, L)		
Stratified	Layers (A5)		High Chroma S	ands (S	11) (LRI	R K, L)	Thin Dark Surface (S9) (LRR K, L)			
	Below Dark Surface	(A11)	Loamy Mucky N	Mineral ((F1) (LR	R K, L)	Iron-Manganese Masses (F12) (LRR K,	L, R)		
	rk Surface (A12)		Loamy Gleyed		F2)		Piedmont Floodplain Soils (F19) (MLRA	the Control		
	oodic (A17)		X Depleted Matrix				Red Parent Material (F21) (outside MLF	A 145)		
	A 144A, 145, 149B)		Redox Dark Su				Very Shallow Dark Surface (F22)			
O	ucky Mineral (S1)		Depleted Dark				Other (Explain in Remarks)			
	leyed Matrix (S4)		Redox Depress	orano Sil	3)		31			
	edox (S5)		Marl (F10) (LRI		24\ /MI E	DA 44E\	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,			
— Stripped	Matrix (S6)		Red Parent Ma	teriai (F	21) (IVILI	KA 145)	unless disturbed or problematic.			
11 1 1 1 1	ayer (if observed):									
Type: _										
Depth (in	iches):						Hydric Soil Present? Yes X No			
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	c	City/County: Lansing	Sampling Date: 6/9/2025				
Applicant/Owner:	State: NY Sampling Point: CCE-SB-117						
Investigator(s): Nathan Turk		Section, Township, Range:					
Landform (hillside, terrace, etc.): Lake plain	Local reli	ief (concave, convex, none): concave	Slope %: 2				
Subregion (LRR or MLRA):		Long:	Datum:				
Soil Map Unit Name:		NWI classification:	7				
Are climatic / hydrologic conditions on the site	e typical for this time of year?	Yes X No (If no,	explain in Remarks.)				
Are Vegetation N , Soil N , or Hydro	(50)						
Are Vegetation N , Soil N , or Hydro							
(68)	\$7,575. 1 \$576.1		10				
SUMMARY OF FINDINGS – Attach	Site map snowing sample	IING POINT IOCATIONS, transects, iiii	portant reatures, etc.				
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area					
Hydric Soil Present?		within a Wetland? Yes X	No				
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID:	-				
Remarks: (Explain alternative procedures h	ere or in a separate report.)						
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indicators (n	ninimum of two required)				
Primary Indicators (minimum of one is require	red; check all that apply)	Surface Soil Cracks	(B6)				
X Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)				
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)				
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1						
Sediment Deposits (B2)	Oxidized Rhizospheres on		n Aerial Imagery (C9)				
Drift Deposits (B3)	Presence of Reduced Iron	(C4) Stunted or Stressed	Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in T	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~					
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D					
Inundation Visible on Aerial Imagery (B7			8 8				
Sparsely Vegetated Concave Surface (E	38)	FAC-Neutral Test (I	05)				
Field Observations:	11 Tab 5 CONTEST (\$45 - 11 CONTEST (\$15 - 11 CON						
Surface Water Present? Yes X	No Depth (inches):						
Water Table Present? Yes	No X Depth (inches): Depth (inches):	The properties regulate of the tent that	200 7200				
Saturation Present? Yes X	No Depth (inches):	0 Wetland Hydrology Present?	YesX_ No				
(includes capillary fringe)	Walter Warriel Shoton provide	· · · · · · · · · · · · · · · · · · ·					
Describe Recorded Data (stream gauge, mo	nitoring well, aerial priotos, previ	ous inspections), if available:					
Remarks:			-				

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

	Absolute	Daminant	Indiantas	
ree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<u> </u>				Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
	-			Species Across All Strata: 8 (B)
				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 62.5% (A/E
				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size:)				OBL species 30 x 1 = 30
Rhamnus cathartica	10	Yes	FAC	FACW species 10 x 2 = 20
-				FAC species x 3 = 60
				FACU species30 x 4 =120
				UPL species10 x 5 =50
				Column Totals: 100 (A) 280 (E
				Prevalence Index = B/A = 2.80
				Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size:5)	100			X 2 - Dominance Test is >50%
Eleocharis palustris	20	Yes	OBL	X_3 - Prevalence Index is ≤3.01
Solidago altissima	20	Yes	FACU	4 - Morphological Adaptations ¹ (Provide support
Equisetum arvense	10	Yes	FAC	data in Remarks or on a separate sheet)
Galium mollugo	10	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Vicia caroliniana	10	Yes	UPL	¹ Indicators of hydric soil and wetland hydrology must
Carex vulpinoidea	10	Yes	OBL	be present, unless disturbed or problematic.
Agrostis gigantea	10	Yes	FACW	Definitions of Vegetation Strata:
		No	-	Tree – Woody plants 3 in. (7.6 cm) or more in
				diameter at breast height (DBH), regardless of heigh
)				Sapling/shrub – Woody plants less than 3 in. DBH
L.				and greater than or equal to 3.28 ft (1 m) tall.
2.	2			Herb – All herbaceous (non-woody) plants, regardles
- To the state of	90	=Total Cover	E	of size, and woody plants less than 3.28 ft tall.
/oody Vine Stratum (Plot size:30)	<u>(4)</u>	E		Woody vines – All woody vines greater than 3.28 ft
				height.
- 10 miles	8			
				Hydrophytic Vegetation
				Present? Yes X No
		=Total Cover		

SOIL INDICATORS FLAGGED FOR QAQC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	c Featur	es					
(inches)	Color (moist)	%	Color (moist)	_%_	Type ¹	Loc ²	Texture	Remarks		
0 - 6	10YR 4/2	_98_	10YR 5/6	_2_	<u></u>	_M_	Loamy/Clayey			
6 - 15	10YR 4/3	90	10YR 5/6	10	<u>C</u>	<u>M</u>	Loamy/Clayey			
15 - 18	10YR 4/3	85	10YR 5/6		<u> </u>	<u>M</u>	Loamy/Clayey	Pieces of shale within this horizon		
	\$	_								
		_		_						
		—		—		—	-			
				—						
	1			_	_					
1- 0.0										
	ncentration, D=Deple	etion, RM	i=Reduced Matrix, N	iS=Mas	ked San	Grains.		PL=Pore Lining, M=Matrix.		
Hydric Soil I			Dork Surface (S	27)				or Problematic Hydric Soils ³ :		
Histosol	ipedon (A2)		Polyvalue Belo	1 (85.0)	ce (S8) (DD D		uck (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R)		
Black His			MLRA 149B)		(50) (LIXIX IX,		ucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Thin Dark Surfa		(I RR R	MIRA		ue Below Surface (S8) (LRR K, L)		
	Layers (A5)		High Chroma S					rk Surface (S9) (LRR K, L)		
	Below Dark Surface	(A11)	Loamy Mucky I				Iron-Manganese Masses (F12) (LRR K, L, R)			
	rk Surface (A12)	(, ,	Loamy Gleyed			, -,		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	oodic (A17)		Depleted Matrix		-,		the second secon	rent Material (F21) (outside MLRA 145)		
	A 144A, 145, 149B)		X Redox Dark Su	A COUNTY OF THE PARTY OF THE PA	6)			allow Dark Surface (F22)		
	ucky Mineral (S1)		Depleted Dark				Other (Explain in Remarks)			
O	leyed Matrix (S4)		Redox Depress							
	edox (S5)		Marl (F10) (LR	- S	1000		³ Indicators of hydrophytic vegetation and			
	Matrix (S6)		Red Parent Ma		21) (MLF	RA 145)	wetland hydrology must be present,			
	.ayer (if observed):				, ,	*********** *		s disturbed or problematic.		
Type:	.ayer (ii observed):									
Depth (in	iches):						Hydric Soil Prese	nt? Yes_X_ No		
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineer	ring	City/County: Lansing		Samp	oling Date: 6/9/2025		
Applicant/Owner:			State:	NY Sar	npling Point: CCE-SB-18		
Investigator(s): Nathan Turk Christophe	r Nack	Section, Towns		32 sinterven	·*************************************		
Landform (hillside, terrace, etc.): Lake		elief (concave, convex, r	: 484 C 5500		Slope %: 2		
Subregion (LRR or MLRA):		Long:	6:0-		Datum:		
Soil Map Unit Name:			NWI classific	cation:			
Are climatic / hydrologic conditions on the	e site typical for this time of year?	Yes X	- No	(If no, explain	in Remarks.)		
Are Vegetation N , Soil N , or F	(50)				Yes X No		
Are Vegetation N, Soil N, or H	(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)		explain any ansv				
SUMMARY OF FINDINGS – Atta					3.0		
					Control of the section of the sectio		
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area		N.			
Hydric Soil Present?	Yes No X	within a Wetland?		No_	<u>X</u>		
Wetland Hydrology Present?	Yes No X	If yes, optional Wetlar	nd Site ID.				
Remarks: (Explain alternative procedur	es here or in a separate report.)						
HYDROLOGY					-		
Wetland Hydrology Indicators:		Se	econdary Indica	ators (minimu	m of two required)		
Primary Indicators (minimum of one is re	equired; check all that apply)		Surface Soil				
Surface Water (A1)	Water-Stained Leaves (B	39)	 Drainage Pa	tterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)	_	Moss Trim Li	ines (B16)			
Saturation (A3)	Marl Deposits (B15)		Dry-Season	Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (0	C1)	Crayfish Bur	rows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres o	on Living Roots (C3)	Saturation V	isible on Aeria	al Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iro	on (C4)	Stunted or S	tressed Plant	s (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6)	Tilled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imager	시장 () 	ks) _	_	aphic Relief (D	04)		
Sparsely Vegetated Concave Surfa	ce (B8)		FAC-Neutral	Test (D5)			
Field Observations:							
Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes				25-5	8040 NEGE		
Saturation Present? Yes	No X Depth (inches):	Wetland F	lydrology Pres	sent?	Yes No _X_		
(includes capillary fringe)							
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, pre	vious inspections), if ava	ailable:				
Remarks:					<u> </u>		
Nomano.							

Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Juglans nigra	30	Yes	FACU	Number of Dominant Species
2. Juniperus virginiana	10	Yes	FACU	That Are OBL, FACW, or FAC:(A)
3. 4.				Total Number of Dominant Species Across All Strata: (B)
5				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
	40	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
1. Juglans nigra	15	Yes	FACU_	FACW species 7 x 2 = 14
2.		5 32		FAC species10 x 3 =30
3.			-	FACU species 95 x 4 = 380
4	2			UPL species 0 x 5 = 0
5.				Column Totals: 112 (A) 424 (B)
6.				Prevalence Index = B/A = 3.79
7.				Hydrophytic Vegetation Indicators:
	 15	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				2 - Dominance Test is >50%
	30	Yes	FACU	3 - Prevalence Index is ≤3.0¹
				4 - Morphological Adaptations ¹ (Provide supporting
2. Rubus occidentalis 3. Phalaris canariensis	15 10	Yes No	ubus occidentalis —FACU	data in Remarks or on a separate sheet)
4. Agrostis gigantea		No No	—FACW—	Problematic Hydrophytic Vegetation ¹ (Explain)
5Sisyrinchium angustifolium		- No	—FAC	¹ Indicators of hydric soil and wetland hydrology must
6. Ranunculus acris		No	—FAC	be present, unless disturbed or problematic.
7Carex granularis	2	No	—FACW—	Definitions of Vegetation Strata:
0		No.		T Westerlests 2 is (7.6 cm) is
9	2	- No	—FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10		. ——		Sapling/shrub – Woody plants less than 3 in. DBH
11	7		-	and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	72	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2.				
3.				Hydrophytic Vegetation
4.				Present? Yes No_X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet)			
Tremains. (moduse prote numbers here or on a separ	ato sricot.)			

Sampling Point: CCE-SB-18

		the de				tor or co	onfirm the absence o	f indicato	rs.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Featur %	Type ¹	Loc ²	Texture		Remark	/e
0 - 3	10YR 4/2		Color (Holst)		Туре		Loamy/Clayey		Kemark	3
		$\overline{}$						E		
3 - 18	10YR 4/3						Loamy/Clayey			
·						2 . :				
								Ľ		
	10 0	×	57X 573	F81				9		
-										
				_						
								·		-
		,5				(S)	<u></u>			
¹Type: C=Cond	contration D=Donlo						² Location: P	I =Doro Li	ning M-Mat	riv
Hydric Soil Inc		tion, Kiv	-Reduced Matrix, IV	io-iviasi	keu Sant	Gianis.	Indicators f			The state of the s
Histosol (A			Dark Surface (S	S7)					LRR K, L, M	
Histic Epipe	1/2		Polyvalue Belov	9 889	ce (S8) (I	LRR R.	8 1 - 1 1		ox (A16) (LR	
Black Histic			MLRA 149B)						12 07070	(LRR K, L, R)
— Hydrogen S			Thin Dark Surfa		(LRR R	, MLRA 1			Surface (S8) (
Stratified La			High Chroma S						(S9) (LRR K	
	elow Dark Surface	(A11)	Loamy Mucky N				Iron-Mar	nganese M	Masses (F12)	(LRR K, L, R)
Thick Dark	Surface (A12)		Loamy Gleyed	Matrix (F2)		Piedmor	nt Floodpla	ain Soils (F19	9) (MLRA 149B)
Mesic Spoo	dic (A17)		Depleted Matrix	x (F3)			Red Par	ent Materi	al (F21) (out	side MLRA 145)
(MLRA	144A, 145, 149B)		Redox Dark Su	ırface (F	6)		Very Sh	allow Dark	Surface (F2	2)
2	ky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (E	xplain in F	Remarks)	
	ed Matrix (S4)		Redox Depress		3)		•			
Sandy Red			Marl (F10) (LRI						ophytic vege	
Stripped Ma	atrix (S6)		Red Parent Ma	iterial (F	21) (MLF	RA 145)			gy must be p	
	,,, , , , , , , , , , , , , , , , , ,						unless	s disturbed	or problema	itic.
	er (if observed):									
Type:									1990	V
Depth (inch	nes):		<u></u>				Hydric Soil Prese	nt?	Yes	No X
Remarks:										

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	C	City/County: Lansing		Sa	ampling Date: 6/9/2025	
Applicant/Owner:			State:	NY 5	Sampling Point: CCE-SB-19	
Investigator(s): Nathan Turk Christopher Nac	 ck	Section, Tow	nship, Range:			
Landform (hillside, terrace, etc.):	Local rel	lief (concave, conve	a the a second		Slope %:	
Subregion (LRR or MLRA):	Lat:	Long:			Datum:	
Soil Map Unit Name:			NWI classific	cation:		
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes	No	(If no, exp	lain in Remarks.)	
Are Vegetation N , Soil N , or Hydro	(51)	ed? Are "Norm	al Circumstances			
Are Vegetation N, Soil N, or Hydro			, explain any ans			
SUMMARY OF FINDINGS – Attach					30	
Lindraphytia Vagatatian Present?	Vac V Na	Is the Sampled Ar		100		
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No No	within a Wetland?		X N	lo	
Wetland Hydrology Present?	Yes X No	If yes, optional Wet			··—	
Remarks: (Explain alternative procedures he		·· ,,	_			
Remains. (Explain alternative procedures in	se of ill a separate report.					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indic	ators (minir	mum of two required)	
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil	Cracks (B	6)	
X Surface Water (A1)	Water-Stained Leaves (B9	9)	Drainage Pa	itterns (B10	0)	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)				
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C	:1)	Crayfish Bur	rows (C8)	Alexander Services Services	
Sediment Deposits (B2)	Oxidized Rhizospheres on	Living Roots (C3)	Saturation V	isible on A	erial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced Iron		Stunted or S			
Algal Mat or Crust (B4)	Recent Iron Reduction in 1	Tilled Soils (C6)	Geomorphic	Position (I	D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aqu	itard (D3)	AN-180	
Inundation Visible on Aerial Imagery (B7	Other (Explain in Remarks	s)	Microtopogra	aphic Relie	f (D4)	
Sparsely Vegetated Concave Surface (B	(8)	17	X FAC-Neutra	Test (D5)		
Field Observations:		T T				
Surface Water Present? Yes X	No Depth (inches):	0.5				
Water Table Present? Yes						
Saturation Present? Yes	No X Depth (inches):	Wetland	Hydrology Pre	sent?	Yes X No	
(includes capillary fringe)		= = = = = = = = = = = = = = = = = = = =				
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previ	rious inspections), if a	available:			
00. 9899 855749						
Remarks:						

	Absolute	Dominant	Indicator	2 4 2 2 1 2 2
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1.	9.	· .		Number of Dominant Species
2.				That Are OBL, FACW, or FAC:6 (A)
3.				Total Number of Dominant
4				Species Across All Strata: 8 (B)
5				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species15 x 1 =15
Fraxinus pennsylvanica	5	Yes	FACW_	FACW species 88 x 2 = 176
2. Lonicera morrowii	5	Yes	FACU	FAC species 0 x 3 = 0
3.				FACU species15 x 4 =60
4.	00			UPL species 0 x 5 = 0
5.				Column Totals: 118 (A) 251 (B)
6.				Prevalence Index = B/A = 2.13
7.	-			Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)	(6.			X 2 - Dominance Test is >50%
Onoclea sensibilis	50	Yes	FACW	X 3 - Prevalence Index is ≤3.0 ¹
Parthenocissus quinquefolia	10	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
	10	Yes	FACW	data in Remarks or on a separate sheet)
	10	· ()	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
		Yes		Problematic Hydrophytic Vegetation (Explain)
5. Agrostis gigantea		Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
6. Carex vulpinoidea	10	Yes	OBL	be present, unless disturbed or problematic.
7. Eleocharis acicularis	5	No No	OBL	Definitions of Vegetation Strata:
8. Eupatorium perfoliatum	3	<u>No</u>	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11	9		-	and greater than or equal to 3.28 ft (1 m) tall.
12			-	Herb – All herbaceous (non-woody) plants, regardless
	108	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft in
1	+			height.
2				Understadio
3				Hydrophytic Vegetation
4				Present? Yes X No No
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

Sampling Point: CCE-SB-19

Profile Desc Depth	ription: (Describe to Matrix	the de		ument the x Feature		ator or c	onfirm the absence of inc	licators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Texture	Remarks	
0 - 3	10YR 4/1	100			-7F-		Mucky Loam/Clay		
3 - 8	10YR 4/2	98	10YR 5/6	2			Loamy/Clayey	Fi.	
8 - 18	10YR 4/3	95	10YR 5/6	5		M	Loamy/Clayey		
	101111470		1011(0/0	-	-	.——			
	12						-		
								<u> </u>	
		—		_	_				
	- 1								
	: 			—	_				
	1=				-				
¹ Type: C=Co	ncentration, D=Deple	tion, RN	M=Reduced Matrix, N	MS=Mas	ked San	d Grains	. ² Location: PL=P	ore Lining, M=Matrix.	
Hydric Soil I								roblematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface ((S7)			2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	ipedon (A2)		Polyvalue Beld	w Surfa	ce (S8) (LRR R,	Coast Prairie	e Redox (A16) (LRR K, L, R)	
Black His	THE STATE OF THE S		MLRA 149B					Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Thin Dark Surf					elow Surface (S8) (LRR K, L)	
	Layers (A5)	/A / 4\	— High Chroma S					urface (S9) (LRR K, L)	
	Below Dark Surface	(A11)	Loamy Mucky			RK,L)		nese Masses (F12) (LRR K, L, R)	
	rk Surface (A12) odic (A17)		Loamy Gleyed Depleted Matri		F2)			oodplain Soils (F19) (MLRA 149B) Material (F21) (outside MLRA 145)	
	A 144A, 145, 149B)		Redox Dark Su		6)			v Dark Surface (F22)	
	ucky Mineral (S1)		X Depleted Dark					nin in Remarks)	
Sandy G	leyed Matrix (S4)		Redox Depres	sions (F	8)			3	
Sandy R	edox (S5)		Marl (F10) (LR	RK, L)			³ Indicators o	f hydrophytic vegetation and	
Stripped	Matrix (S6)		Red Parent Ma	aterial (F	21) (MLI	RA 145)		nd hydrology must be present,	
							unless dis	turbed or problematic.	
400000	.ayer (if observed):								
	New Andrew Co.								
Depth (in	ches):						Hydric Soil Present?	Yes X No	
Remarks:									

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/Coun	ty: Lansing	Sampling Date: 6/9/2025
Applicant/Owner:		State: NY	Sampling Point: CCE-SB-20
Investigator(s): Nathan Turk Christopher Nac	ck S	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relief (conc	ave, convex, none): concave	Slope %: 2
Subregion (LRR or MLRA):	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI classification:	
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes No (If no, e	explain in Remarks.)
Are Vegetation N , Soil N , or Hydro	(50)	Are "Normal Circumstances" prese	. Tr
Are Vegetation N , Soil N , or Hydro		(If needed, explain any answers in	
SUMMARY OF FINDINGS – Attach	57,575 SVIII		30
Hydrophytic Vegetation Present?		ampled Area	N-
Hydric Soil Present? Wetland Hydrology Present?		a Wetland? Yes X ptional Wetland Site ID:	No
1 12-022 A 70- A 1172 According		ptional Wetland Site ID.	
Remarks: (Explain alternative procedures he	are or in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (m	ninimum of two required)
Primary Indicators (minimum of one is require	ed; check all that apply)	Surface Soil Cracks	(B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (I	B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water 1	
— Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living R		n Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed	Bandonesia (CTC) 516
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil		6 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D	
Inundation Visible on Aerial Imagery (B7	3 1	Microtopographic Re	
Sparsely Vegetated Concave Surface (E	,6)	X FAC-Neutral Test (D	15)
Field Observations:	No. V. Dooth (books)		
Surface Water Present? Yes Water Table Present? Yes	No X Depth (inches):		
Water Table Present? Yes Saturation Present? Yes X	No X Depth (inches): No Depth (inches): 10	Wetland Hydrology Present?	Vac v No
Saturation Present? Yes X (includes capillary fringe)	Deput (inches). 10	Wettand Hydrology Present?	Yes X No
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previous insp	L ections), if available:	
(, , , , , , , , , , , , , , , , , , ,		
Remarks:			

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

	Absolute	Dominant	Indicator	
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:
		· 12		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
			<u> </u>	That Are OBL, FACW, or FAC: 75.0% (A/B
				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15)				OBL species 15 x 1 = 15
Fraxinus pennsylvanica	5	Yes	FACW	FACW species 38 x 2 = 76
. Lonicera morrowii	5	Yes	FACU	FAC species 8 x 3 = 24
		• 3		FACU species 15 x 4 = 60
		* 1	-	UPL species 3 x 5 = 15
				Column Totals: 79 (A) 190 (B
· · · · · · · · · · · · · · · · · · ·	-	• # ## H ## ## ## ## ## ## ## ## ## ## ##		Prevalence Index = B/A = 2.41
		· 11 · · · · · · · · · · · · · · · · ·		Hydrophytic Vegetation Indicators:
	10	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
lerb Stratum (Plot size: 5)		- Total Cover		× 2 - Dominance Test is >50%
Onoclea sensibilis	25	Yes	FACW	x 3 - Prevalence Index is ≤3.0 ¹
. Carex vulpinoidea	15	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting
. Parthenocissus quinquefolia	10	No No	FACU	data in Remarks or on a separate sheet)
. Agrostis gigantea	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
. Circaea alpina	3	No No	FACW	
. Toxicodendron radicans	3	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
. Melissa officinalis	3	No	UPL	Definitions of Vegetation Strata:
Erigeron philadelphicus	3	No	FAC	
Geum canadense	2	No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
0.				
1.		-		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
2.		5 (S. 35)	-	
	69	=Total Cover		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size: 30)		- Total Gover		of size, and woody plants less than 5.20 it tall.
				Woody vines – All woody vines greater than 3.28 ft i
- 		. ——		height.
	-	. ——		Hydrophytic
			-	Vegetation
				Present? Yes X No No
		=Total Cover		

SOIL INDICATORS FLAGGED FOR QAQC

Profile Desc	ription: (Describe t	o the de	pth needed to docu	ıment t	he indica	ator or co	onfirm the absence of indicators.)	
Depth	Matrix		Redo	x Featu				
(inches)	Color (moist)	_%_	Color (moist)	_%_	Type ¹	Loc ²	Texture Remarks	
0 - 6	10YR 4/2	100	-				Loamy/Clayey	
6 - 18	10YR 4/3	98	10YR 5/6	2	С	М	Loamy/Clayey	114
	-			—				
	-					-		
					· ——			
			-					
	-	·——	-	_				
-		-	-					
				_				
· · · · · · · · · · · · · · · · · · ·		0			8 9 9			-51
1T C=C-	oncentration, D=Depl			40-14			21 continue Di Dona Linina Managir	
Hydric Soil I		euon, Ki	i-Reduced Matrix, N	/IS=IVIAS	skeu San	u Grains.	Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :	-
Histosol			Dark Surface (S7)			2 cm Muck (A10) (LRR K, L, MLRA 149	в)
1 Table 1 Tabl	ipedon (A2)		Polyvalue Belo	U 1884)	ce (S8) (LRR R.	Coast Prairie Redox (A16) (LRR K, L, R	27
Black His			MLRA 149B		, , ,	T.	5 cm Mucky Peat or Peat (S3) (LRR K, I	S
— Hydrogei	n Sulfide (A4)		Thin Dark Surf	ace (S9) (LRR R	, MLRA 1	- Barana Barana	SELECTION OF THE PERSON OF THE
Stratified	Layers (A5)		High Chroma S	Sands (S	611) (LRI	R K, L)	Thin Dark Surface (S9) (LRR K, L)	
	Below Dark Surface	(A11)	Loamy Mucky	Mineral	(F1) (LR	RK, L)	Iron-Manganese Masses (F12) (LRR K,	L, R)
	rk Surface (A12)		Loamy Gleyed		(F2)		Piedmont Floodplain Soils (F19) (MLRA	and the State of
	oodic (A17)		Depleted Matri	access, access, and			Red Parent Material (F21) (outside MLF	RA 145)
	A 144A, 145, 149B)		X Redox Dark Su				Very Shallow Dark Surface (F22)	
	ucky Mineral (S1) leyed Matrix (S4)		Depleted Dark		100 G		Other (Explain in Remarks)	
	edox (S5)		Marl (F10) (LR		0)		³ Indicators of hydrophytic vegetation and	e l
	Matrix (S6)		Red Parent Ma		21) (ML F	RA 145)	wetland hydrology must be present,	ž.
— · · · · · ·	mann (00)			iona (i	, (<u>_</u>	,	unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Type:	50 W 50W							
Depth (in	nches):						Hydric Soil Present? Yes X No	
Remarks:								
A STATE OF THE STA								
								- 1

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County: Lansing / Tompkins Sampling	g Date: 6/11/2025
Applicant/Owner: Beowulf	State: NY Sampli	ing Point: CCE-SB-21
Investigator(s): Nathan Turk Christopher Nack	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relief (concave, convex, none): concave	Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat:	Long: D	Datum: NAD 83
Soil Map Unit Name:	NWI classification:	- 16
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No (If no, explain in	Remarks.)
Are Vegetation N , Soil N , or Hydrology N sig	nificantly disturbed? Are "Normal Circumstances" present? Ye	es X No
Are Vegetation N , Soil N , or Hydrology N nat		
	nowing sampling point locations, transects, important	30 20 100 - 200
Lindraphytia Vagatation Present? Van V. N	In the Samulad Area	
	Is the Sampled Area within a Wetland? Yes X No	
	lo If yes, optional Wetland Site ID:	-
Remarks: (Explain alternative procedures here or in a sepa		
(
		d
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minimum o	of two required)
Primary Indicators (minimum of one is required; check all the	at apply) Surface Soil Cracks (B6)	
X Surface Water (A1) Water-St	ained Leaves (B9) X Drainage Patterns (B10)	
High Water Table (A2) Aquatic F	Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3)Marl Dep	osits (B15) Dry-Season Water Table (C2))
Water Marks (B1) Hydrogen	n Sulfide Odor (C1) Crayfish Burrows (C8)	
Sediment Deposits (B2) Oxidized	Rhizospheres on Living Roots (C3) Saturation Visible on Aerial In	nagery (C9)
Drift Deposits (B3) Presence	e of Reduced Iron (C4) Stunted or Stressed Plants (D)1)
Algal Mat or Crust (B4)Recent Ir	on Reduction in Tilled Soils (C6) X Geomorphic Position (D2)	
Iron Deposits (B5) Thin Muc	k Surface (C7)Shallow Aquitard (D3)	
	cplain in Remarks)Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)	
Field Observations:		
Surface Water Present? Yes X No I	Depth (inches): 0.5	
Water Table Present? Yes No _X I	Depth (inches):	
Surface Water Present? Yes X No I Water Table Present? Yes No X I Saturation Present? Yes No X I	Depth (inches): Wetland Hydrology Present? Ye	es _ X_ No
(includes capillary fringe)		142.1
Describe Recorded Data (stream gauge, monitoring well, as	erial photos, previous inspections), if available:	
Domonico		
Remarks:		

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator	Dominance Test worksheet:
		Species?	Status	Dominance rest worksheet.
1. Juglans nigra	5	<u>Yes</u>	FACU	Number of Dominant Species
2. Populus deltoides	3	Yes	FAC_	That Are OBL, FACW, or FAC:4 (A)
3.				Total Number of Dominant
4				Species Across All Strata: 6 (B)
5				Percent of Dominant Species
6			-	That Are OBL, FACW, or FAC: 66.7% (A/B)
7				Prevalence Index worksheet:
	8	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:15)				OBL species x 1 = 50
1. Rhamnus cathartica	30	Yes	FAC	FACW species 20 x 2 = 40
2. Lonicera morrowii	10	Yes	FACU_	FAC species 35 x 3 = 105
3. Rosa multiflora	2	No	FACU_	FACU species x 4 = 88
4	9	- Y <u></u> 0		UPL species 7 x 5 = 35
5	40			Column Totals: 134 (A) 318 (B)
6.				Prevalence Index = B/A = 2.37
7.				Hydrophytic Vegetation Indicators:
	42	=Total Cover	3	1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
Eleocharis acicularis	50	Yes	OBL	X 3 - Prevalence Index is ≤3.0 ¹
2. Agrostis gigantea	20	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting
3. Bromus inermis	<u>=</u> 5	No	UPL	data in Remarks or on a separate sheet)
Parthenocissus quinquefolia	3	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Solidago rugosa		No	FAC	
6. Carex spicata		No No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. Veronica chamaedrys	2	No	UPL	Definitions of Vegetation Strata:
i i		110	UFL	Definitions of Vegetation Strata.
8.		-		Tree – Woody plants 3 in. (7.6 cm) or more in
9.		-		diameter at breast height (DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH
11	-	- 1 <u></u> 0		and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	84	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4				Present?
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

Sampling Point: CCE-SB-21

SOIL INDICATORS FLAGGED FOR QAQC

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox	Featur	es				
(inches)	Color (moist)	%	Color (moist)	_%_	Type ¹	Loc ²	Texture	Remarks	
0 - 5	10YR 4/1			_			Mucky Loam/Clay		
5 - 12	10YR 4/2	98	10YR 5/6	_2_	<u>C</u>	<u>M</u>	Loamy/Clayey	Bits of shale and gravel	
					-				
	,								
	-								
	P 	—	¥	—			2 2		
				—					
	-								
	18								
	92		Ti.				2 2		
¹ Type: C=Co	ncentration, D=Deple	tion, RM	1=Reduced Matrix, M	IS=Mas	ked Sand	d Grains	. ² Location: Pl	L=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils ³ :	
Histosol (Dark Surface (S	1850				ck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		Polyvalue Belo		ce (S8) (I	LRR R,		rairie Redox (A16) (LRR K, L, R)	
— Black His			MLRA 149B)		// DD D	MIDA	The contraction of the contracti	cky Peat or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)		Thin Dark Surfa High Chroma S		on the state of th			e Below Surface (S8) (LRR K, L) k Surface (S9) (LRR K, L)	
	Layers (A5) Below Dark Surface	(Δ11)	Loamy Mucky N			- 8		nganese Masses (F12) (LRR K, L, R)	
	rk Surface (A12)	(411)	Loamy Gleyed			· · · · · · · · ·		nt Floodplain Soils (F19) (MLRA 149B)	
	odic (A17)		X Depleted Matrix				A CONTRACTOR OF THE PARTY OF TH	ent Material (F21) (outside MLRA 145)	
	A 144A, 145, 149B)		Redox Dark Su		6)			allow Dark Surface (F22)	
Sandy M	ucky Mineral (S1)		Depleted Dark	Surface	(F7)		Other (E	xplain in Remarks)	
Sandy GI	eyed Matrix (S4)		Redox Depress	ions (F	8)		4.24		
	edox (S5)		Marl (F10) (LRI					rs of hydrophytic vegetation and	
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (MLF	RA 145)		d hydrology must be present,	
Destrictive I	over (if abouted).						unless	disturbed or problematic.	
	ayer (if observed): Bedrock								
	ches): 12						Hydric Soil Preser	nt? Yes ^X No	
Remarks:							,uno com i rocci	103 110	
Refusal at	12" - shale and grave	el immed	liately above refusal.						
								l l	

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/C	County: Lansing / Tompkins	Sampling Date: 6/11/2025
Applicant/Owner: Beowulf	COUNTY	State: NY	Sampling Point: CCE-SB-22
Investigator(s): Nathan Turk Christopher Nac	 ck	Section, Township, Range:	
Landform (hillside, terrace, etc.): Lake plain	Local relief (concave, convex, none): none	Slope %: 2
Subregion (LRR or MLRA): LRR L, MLRA 1		Long:	Datum: NAD 83
Soil Map Unit Name:		NWI classification	
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes X No (If no	o, explain in Remarks.)
Are Vegetation N , Soil N , or Hydro	5.	Are "Normal Circumstances" pre	
Are Vegetation N, Soil N, or Hydro	575/C	(If needed, explain any answers	10
SUMMARY OF FINDINGS – Attach	site map snowing sampling	g point locations, transects, i	important leatures, etc.
Hydrophytic Vegetation Present?	Yes No _X Is t	he Sampled Area	
Hydric Soil Present?	Yes No X wit	hin a Wetland? Yes	No X
Wetland Hydrology Present?	Yes No _X	es, optional Wetland Site ID:	100
Remarks: (Explain alternative procedures he	ere or in a separate report.)		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators	(minimum of two required)
Primary Indicators (minimum of one is require	ed; check all that apply)	Surface Soil Crac	***************************************
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns	5 5
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines	. 100
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows	
Sediment Deposits (B2)	Oxidized Rhizospheres on Livi	The same of the sa	on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	Anna an anna an an an an an an an an an a	A DOMESTIC 1870 1870
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard	
Inundation Visible on Aerial Imagery (B7		Microtopographic	ix new en
Sparsely Vegetated Concave Surface (B		FAC-Neutral Test	
Field Observations:			(==)
Surface Water Present? Yes	No X Depth (inches):		
Water Table Present? Yes	No X Depth (inches):		
Saturation Present? Yes	No X Depth (inches):	Wetland Hydrology Present?	Yes No _X_
(includes capillary fringe)		_	
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, previous	inspections), if available:	
Doosiibo i toooi aaa Data (ottoaiii gaago) iiio	micring from acriai priotoc, providuo	mopositions, in available.	
Remarks:			
(The Control of the C			
1			

T 0 1	Absolute	Dominant	Indicator	5 1 7 17 1
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1. Fraxinus pennsylvanica	20	<u>Yes</u>	FACW_	Number of Dominant Species
2. Juniperus virginiana	5	Yes	FACU_	That Are OBL, FACW, or FAC:4 (A)
3		. ——		Total Number of Dominant
4		-		Species Across All Strata: 9 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC:44.4%(A/B)
7			<u> </u>	Prevalence Index worksheet:
	25	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
1. Rosa multiflora	20	Yes	FACU	FACW species 45 x 2 = 90
2. Lonicera morrowii	20	Yes	FACU	FAC species25 x 3 =75
3. Rhamnus cathartica	10	Yes	FAC	FACU species 79 x 4 = 316
4				UPL species 3 x 5 = 15
5	20			Column Totals: 152 (A) 496 (B)
6		3 82		Prevalence Index = B/A =3.26
7.				Hydrophytic Vegetation Indicators:
	50	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size:5)				2 - Dominance Test is >50%
1. Onoclea sensibilis	20	Yes	FACW_	3 - Prevalence Index is ≤3.0 ¹
2. Parthenocissus quinquefolia	15	Yes	FACU	4 - Morphological Adaptations (Provide supporting
3. Symphyotrichum ontarionis	10	Yes	FAC	data in Remarks or on a separate sheet)
4. Lonicera morrowii	10	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Agrostis gigantea	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
6. Athyrium angustum	5	No	FAC	be present, unless disturbed or problematic.
7. Rosa multiflora	3	No	FACU	Definitions of Vegetation Strata:
8. Circaea canadensis	3	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in
9. Fragaria virginiana	3	No	FACU	diameter at breast height (DBH), regardless of height.
10. Vicia caroliniana	3	No	UPL	Sapling/shrub – Woody plants less than 3 in. DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.			- 3	Herb – All herbaceous (non-woody) plants, regardless
**	77	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)		8		Woody vines – All woody vines greater than 3.28 ft in
1.				height.
2.				
3.				Hydrophytic Vegetation
4.				Present? Yes No_X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			•
	•			

Sampling Point: CCE-SB-22

SOIL Sampling Point CCE-SB-22

Profile Desc Depth	ription: (Describe to Matrix	o the de		ument th x Feature		ator or co	onfirm the absence of	indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0 - 12	10YR 4/3	98	10YR 5/6	2	C	M	Loamy/Clayey				
12 - 18	10YR 4/3	90	10YR 5/6	10			Loamy/Clayey		-		
	-			—							
-	-		-								
	2.		-		-	8 .					
	-		-		-		-				
	-		-								
1	8			_							
	18				-				- A16		
1Tunes C=Co	oncentration, D=Deple	——	4=Deduced Metrix N			——	2l costion: DI	=Pore Lining, M=Matrix.			
Hydric Soil I		ation, RN	/i=Reduced Matrix, N	15=Masi	ked San	d Grains.		r Problematic Hydric So	ils³:		
Histosol			Dark Surface (S7)			2 cm Muck (A10) (LRR K, L, MLRA 149B)				
Histic Epipedon (A2) Polyvalue Below Surface (S8) (LRR R,				LRR R,		airie Redox (A16) (LRR K	N N N				
Black Histic (A3) MLRA 149B)					cky Peat or Peat (S3) (LR						
Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLRA					Below Surface (S8) (LRI						
Stratified Layers (A5) High Chroma Sands (S11) (LRR K, L)					Surface (S9) (LRR K, L)						
	Below Dark Surface	(A11)	Loamy Mucky			RK,L)		ganese Masses (F12) (LR			
	rk Surface (A12)		Loamy Gleyed	o zamowa 65	F2)		the state of the s	Floodplain Soils (F19) (N			
	odic (A17) A 144A, 145, 149B)		Pepleted Matrix Redox Dark Su		6)			nt Material (F21) (outside llow Dark Surface (F22)	: WLKA 145)		
	ucky Mineral (S1)		Depleted Dark					plain in Remarks)			
2	leyed Matrix (S4)		Redox Depress					pian in romano,			
	edox (S5)		Marl (F10) (LR		-,		³ Indicator	s of hydrophytic vegetation	n and		
	Matrix (S6)		Red Parent Ma		21) (MLF	RA 145)	,				
					* *	**************************************		disturbed or problematic.	enc#		
	.ayer (if observed):										
Type: _	Olimphistalisms CS							· · · · · · · · · · · · · · · · · · ·	v		
Depth (in	iches):						Hydric Soil Presen	t? Yes	No <u>X</u>		
Remarks:											

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	c	City/County: Lansing	J / Tompkins	Sampling Date: 6/11/2025					
Applicant/Owner: Beowulf		000 to 000 million and a single control of the cont	State: NY	Sampling Point: CCE-SB-23					
Investigator(s): Nathan Turk Christopher Nack		Section, Tov	wnship, Range:						
Landform (hillside, terrace, etc.): Lake plain	Local reli	lief (concave, conve		Slope %: 2					
Subregion (LRR or MLRA): LRR L, MLRA 10°		- NE		Datum:					
Soil Map Unit Name:	- Louis		NWI classification:						
Are climatic / hydrologic conditions on the site t	typical for this time of year?	Yes	No (If no, e	explain in Remarks.)					
Are Vegetation N , Soil N , or Hydrolo		· · · · · · · · · · · · · · · · · · ·	nal Circumstances" prese						
Are Vegetation N , Soil N , or Hydrolo									
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	9 P	,	, , , , , , , , , , , , , , , , , , , ,					
		Is the Sampled Ar							
		within a Wetland?		No					
Wetland Hydrology Present? Yes X No If yes, optional Wetland Site ID:									
Remarks: (Explain alternative procedures here or in a separate report.)									
Wet boring for W18									
-									
				4					
HYDROLOGY									
Wetland Hydrology Indicators:			Secondary Indicators (m	inimum of two required)					
Primary Indicators (minimum of one is required	57.55		Surface Soil Cracks	3					
Surface Water (A1)	Water-Stained Leaves (B9))	X Drainage Patterns (E	10 mm					
— High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B1	CORO COMO SONO					
Saturation (A3)	Marl Deposits (B15)	5000	Dry-Season Water T						
Water Marks (B1)	Hydrogen Sulfide Odor (C1								
Sediment Deposits (B2)	Oxidized Rhizospheres on								
— Drift Deposits (B3)	Presence of Reduced Iron	and the Manager are also and the second of t							
Algal Mat or Crust (B4)	Recent Iron Reduction in T								
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D	1.470					
Inundation Visible on Aerial Imagery (B7)		;)	X Microtopographic Re	8 8					
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	95)					
Field Observations:									
Surface Water Present? Yes	No X Depth (inches):								
Water Table Present? Yes	No X Depth (inches):								
	No X Depth (inches):	Wetian	d Hydrology Present?	YesX_ No					
(includes capillary fringe) Describe Recorded Data (stream gauge, moni	itoring well serial photos previ	ious inspections) if	available:						
Describe Necorded Data (Stream gadge, mom	toring wen, aeriai priotos, provi	ious irispections), ir	avallable.						
Remarks:									

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

	Absolute	Dominant	Indicator					
Free Stratum (Plot size: 30)	% Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:				
				Number of Dominant Species				
				That Are OBL, FACW, or FAC: (A)				
		: %=:		Total Number of Dominant				
				Species Across All Strata: 2 (B)				
i				Percent of Dominant Species				
i				That Are OBL, FACW, or FAC: 100.0% (A/B				
				Prevalence Index worksheet:				
		=Total Cover		Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size:15)				OBL species 10 x 1 = 10				
. Rhamnus cathartica	30	Yes	FAC	FACW species 5 x 2 = 10				
. Juglans nigra	5	No	FACU_	FAC species 82 x 3 = 246				
Lonicera morrowii	5	No	FACU	FACU species 22 x 4 = 88				
Rosa multiflora	5	No	FACU_	UPL species0 x 5 =0				
i		7		Column Totals: 119 (A) 354 (B				
i				Prevalence Index = B/A = 2.97				
. <u> </u>		9		Hydrophytic Vegetation Indicators:				
	45	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
Herb Stratum (Plot size:5)				X 2 - Dominance Test is >50%				
. Matteuccia struthiopteris	40	Yes	FAC	_x_3 - Prevalence Index is ≤3.01				
. Carex vulpinoidea	10	No	OBL	4 - Morphological Adaptations ¹ (Provide supporting				
Solidago rugosa	10	No	FAC	data in Remarks or on a separate sheet)				
. Fraxinus pennsylvanica	5	No	FACW_	Problematic Hydrophytic Vegetation ¹ (Explain)				
5. Parthenocissus quinquefolia	5	No	FACU	¹ Indicators of hydric soil and wetland hydrology must				
Rosa multiflora	2	No	FACU_	be present, unless disturbed or problematic.				
Toxicodendron radicans	2	No	FAC	Definitions of Vegetation Strata:				
3		- 1 1)		Tree – Woody plants 3 in. (7.6 cm) or more in				
)				diameter at breast height (DBH), regardless of height				
0	-			Sapling/shrub – Woody plants less than 3 in. DBH				
1				and greater than or equal to 3.28 ft (1 m) tall.				
2	74	=Total Cover		Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.				
Voody Vine Stratum (Plot size: 30)								
				Woody vines – All woody vines greater than 3.28 ft in height.				
2.		-						
i.		-		Hydrophytic				
				Vegetation Present? Yes X No				
-		=Total Cover						

SOIL INDICATORS FLAGGED FOR QAQC

SOIL Sampling Point CCE-SB-23

Profile Desc	ription: (Describe t	o the de	oth needed to docu	ment th	ne indica	tor or co	onfirm the absence of indicators.)				
Depth	Matrix		Redox	k Featur	es						
(inches)	Color (moist)	_ %_	Color (moist)	_%_	Type ¹	Loc ²	Texture Remarks				
0 - 4	10YR 4/1	100					Loamy/Clayey				
4 - 10	10YR 4/2	90	10YR 5/6	10	<u>C</u>	_M	Loamy/Clayey				
10 - 18	10YR 4/3	90	10YR 5/6		<u>C</u>	<u>M</u>	Loamy/Clayey Shale present	_			
	£					() 		-			
					-			===			
	P = E	·——		_				-			
	()			_							
	1 		 								
				_							
	9							_			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.											
Hydric Soil Indicators:							Indicators for Problematic Hydric Soils ³ :				
Histosol (A1) Dark Surface (S7)							2 cm Muck (A10) (LRR K, L, MLRA 149B)				
Histic Epipedon (A2) Polyvalue Below Surface (S8) (LRR R,					LKK K,	Coast Prairie Redox (A16) (LRR K, L, R)	.				
— Black His			MLRA 149B		/I DD D	MIDA	5 cm Mucky Peat or Peat (S3) (LRR K, L, F	()			
	n Sulfide (A4) Layers (A5)		Thin Dark Surfa High Chroma S				149B) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)				
	Below Dark Surface	(Δ11)	Loamy Mucky I				Iron-Manganese Masses (F12) (LRR K, L,	Β/			
	rk Surface (A12)	(ATT)	Loamy Gleyed			(K, L)	Piedmont Floodplain Soils (F19) (MLRA 149B)				
	oodic (A17)		X Depleted Matrix	- 20mm	r2)		Red Parent Material (F21) (outside MLRA	2000			
	A 144A, 145, 149B)		Redox Dark Su		6)		Very Shallow Dark Surface (F22)				
	ucky Mineral (S1)		Depleted Dark				Other (Explain in Remarks)				
	leyed Matrix (S4)		Redox Depress		S. S.		Cutof (Explain in Normalico)				
	edox (S5)		Marl (F10) (LR		5)		³ Indicators of hydrophytic vegetation and				
	Matrix (S6)		Red Parent Ma		21) (MI F	2Δ 145)	wetland hydrology must be present,				
_	ook ontdek tir kond der of the Control of the the time.			itoriai (i	21) (ML)	UN 140)	unless disturbed or problematic.				
Restrictive L Type:	.ayer (if observed):										
Depth (in	iches):						Hydric Soil Present? Yes X No	.			
Remarks:											

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering		City/County:		Sampling Date: 6/11/2025			
Applicant/Owner:			State:	Sampling Point: CCE-SB26			
Investigator(s):		Section, Tow	nship, Range:				
Landform (hillside, terrace, etc.):	Local re	elief (concave, convex	(, none): none	Slope %: 5			
Subregion (LRR or MLRA): LRR L, MLRA 10		Long:	NO 200	Datum:			
Soil Map Unit Name:			NWI classification:				
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes X		explain in Remarks.)			
S (47)	5.61						
Are Vegetation N, Soil N, or Hydro			al Circumstances" prese				
Are Vegetation N, Soil N, or Hydro	Section Annual Contract Contra		explain any answers in	10			
SUMMARY OF FINDINGS – Attach	site map showing samp	oling point locat	ions, transects, im	portant features, etc.			
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Are	ea				
Hydric Soil Present?	Yes No X	within a Wetland?		No X			
Wetland Hydrology Present?	Yes No X	If yes, optional Wet	and the second s	:			
Remarks: (Explain alternative procedures he	ere or in a separate report.)	7201 ST. A. S. M.					
,—,—,—,—,—,—,—,—,—,—,—,—,—,—,—,—,—,—,—							
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indicators (m	ninimum of two required)			
Primary Indicators (minimum of one is require	ed: check all that apply)		Surface Soil Cracks				
Surface Water (A1)	Water-Stained Leaves (B	9)	Drainage Patterns (5 5			
High Water Table (A2)	Aquatic Fauna (B13)	٠,	Moss Trim Lines (B16)				
Saturation (A3)	Marl Deposits (B15)	X.	Dry-Season Water Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (C						
Sediment Deposits (B2)	Oxidized Rhizospheres or) ————————————————————————————————————					
Drift Deposits (B3)	Presence of Reduced Iron						
Algal Mat or Crust (B4)	Recent Iron Reduction in	and the Management and account to	Geomorphic Positio	100 CO 1510			
Iron Deposits (B5)	Thin Muck Surface (C7)						
Inundation Visible on Aerial Imagery (B7	Other (Explain in Remarks	s) .	Microtopographic R				
Sparsely Vegetated Concave Surface (B	i :		FAC-Neutral Test (I				
Field Observations:	<u> </u>	T .		- 50			
Surface Water Present? Yes	No X Depth (inches):	-3					
Water Table Present? Yes	No X Depth (inches):						
Saturation Present? Yes	No X Depth (inches):		Hydrology Present?	Yes NoX_			
(includes capillary fringe)	Au Au	= = = = = = = = = = = = = = = = = = = =					
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, prev	vious inspections), if a	available:				
OO. 9500 SECTION							
				10			
Remarks:				3			

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

	nts.			Sampling Point: CCE-SB26
Free Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Juglans nigra	15	Yes	FACU	Number of Dominant Species
Fraxinus pennsylvanica	10	Yes	FACW	That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
	-			Species Across All Strata:6 (B)
-				Percent of Dominant Species
-				That Are OBL, FACW, or FAC: 33.3% (A/B
				Prevalence Index worksheet:
	25	=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size:15)				OBL species 0 x 1 = 0
Fraxinus pennsylvanica	20	Yes	FACW_	FACW species 30 x 2 = 60
Rubus alumnus	15	Yes	FACU_	FAC species 0 x 3 = 0
	-	· ·	-	FACU species 105 x 4 = 420
	-			UPL species 0 x 5 = 0
	+	<u> </u>		Column Totals: 135 (A) 480 (B
	-			Prevalence Index = B/A = 3.56
	-			Hydrophytic Vegetation Indicators:
	35	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
erb Stratum (Plot size: 5)				2 - Dominance Test is >50%
Alliaria petiolata	40	Yes	FACU_	3 - Prevalence Index is ≤3.01
Ageratina altissima	15	Yes	FACU_	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
. Hesperis matronalis	10	<u>No</u>	FACU_	w
Parthenocissus inserta	10	<u>No</u>	FACU_	Problematic Hydrophytic Vegetation ¹ (Explain)
	-	0		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in
				diameter at breast height (DBH), regardless of height
0.				Sapling/shrub – Woody plants less than 3 in. DBH
1	-			and greater than or equal to 3.28 ft (1 m) tall.
2				Herb – All herbaceous (non-woody) plants, regardles
	75	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft in
				height.
				Hydrophytic
				Page 4.7 (2007)
				Vegetation Present? Yes No X

SOIL INDICATORS FLAGGED FOR QAQC

SOIL Sampling Point CCE-SB26

Profile Desc	ription: (Describe to	the dep	oth needed to docu	ıment t	he indica	tor or co	onfirm the absence of indicators.)				
Depth	Matrix		Redox	k Featur	res						
(inches)	Color (moist)	%	Color (moist)	_%	Type ¹	Loc2	Texture Remarks				
0 - 2	10YR 4/2	100					Loamy/Clayey				
2 - 18	10YR 4/3	100					Loamy/Clayey	734			
	1011(1/0										
	-										
3	15. 38						* -				
	*			—		—	}				
	BW		<u> </u>								
	18 77										
-	1	—		—							
	<u> </u>		<u> </u>								
· · · · · · · · · · · · · · · · · · ·	18						· · · · · · · · · · · · · · · · · · ·				
	9		<u></u>				<u> </u>				
¹ Type: C=Co	ncentration, D=Deple	etion, RM	=Reduced Matrix, M	1S=Mas	ked Sand	Grains.	² Location: PL=Pore Lining, M=Matrix.				
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils ³				
Histosol (A1) Dark Surface (S7)					2 cm Muck (A10) (LRR K, L, MLRA 14	9B)					
Histic Epipedon (A2) Polyvalue Below Surface (S8) (LRf				RR R,	Coast Prairie Redox (A16) (LRR K, L,	R)					
Black Histic (A3) MLRA 149B)					5 cm Mucky Peat or Peat (S3) (LRR K	State of the state					
Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLR					L)						
Stratified Layers (A5) High Chroma Sands (S11) (LRR K				Thin Dark Surface (S9) (LRR K, L)							
	Below Dark Surface	(A11)	Loamy Mucky I			R K, L)	Iron-Manganese Masses (F12) (LRR K	31 32 33			
	rk Surface (A12)		Loamy Gleyed		F2)		Piedmont Floodplain Soils (F19) (MLR				
	odic (A17) A 144A, 145, 149B)		Depleted Matrix		-e)		— Red Parent Material (F21) (outside MI Very Shallow Dark Surface (F22)	-KA 145)			
	ucky Mineral (S1)		Redox Dark Su Depleted Dark				Other (Explain in Remarks)				
	leyed Matrix (S4)		Redox Depress				Cuter (Explain in Nemarks)				
	edox (S5)		Marl (F10) (LR		٥,		³ Indicators of hydrophytic vegetation a	nd			
	Matrix (S6)		Red Parent Ma		21) (MLF	(A 145)	아들이 그는 사람들이 가장 살아 있다면 하는 것이 없는 것이 없다면 없는 것이 없다면 없는 것이 없는 것이었다면 없었다면 없는 것이었다면 없었다면 없었다면 없는 것이었다면 없는 것이었다면 없는 것이었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없				
						*:>-:::::::::::::::::::::::::::::::::::	unless disturbed or problematic.				
Restrictive L	.ayer (if observed):										
Type:	94 M 00%										
Depth (in	ches):						Hydric Soil Present? Yes No 2	<u> </u>			
Remarks:											

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	(City/County:		Sampling Date: 6/13/2025			
Applicant/Owner:			State: NY	/ Sampling Point: 27			
Investigator(s): K Buelow, R Chiarello		Section, Tov	vnship, Range:				
Landform (hillside, terrace, etc.): hillside	Local re	elief (concave, conve	x, none): none	Slope %: 3-5			
Subregion (LRR or MLRA): LRR L, MLRA 1		Long:	· ,	· Datum:			
Soil Map Unit Name: Hudson Cayuga	<u> </u>		NWI classificatio				
·	Amiral for this time of come	V V					
Are climatic / hydrologic conditions on the site	•	Yes X		no, explain in Remarks.)			
Are Vegetation, Soil, or Hydro			nal Circumstances" pre	esent? Yes X No			
Are Vegetation, Soil, or Hydro	logynaturally problemat	ic? (If needed	, explain any answers	in Remarks.)			
SUMMARY OF FINDINGS – Attach	site map showing samp	oling point locat	ions, transects,	important features, etc.			
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Ar	ea				
Hydric Soil Present?	Yes X No	within a Wetland?	Yes X	No			
Wetland Hydrology Present?	Yes X No	If yes, optional We	tland Site ID:	<u> </u>			
Wet sample point for CCE-W22							
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indicators	s (minimum of two required)			
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil Crac	cks (B6)			
Surface Water (A1)	Water-Stained Leaves (B	9)	Drainage Pattern				
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines				
Saturation (A3)	Marl Deposits (B15)		Dry-Season Wat				
Water Marks (B1)	Hydrogen Sulfide Odor (C	ulfide Odor (C1) Crayfish Burrows (C8) izospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iron	= : :					
Algal Mat or Crust (B4)	Recent Iron Reduction in	` '	X Geomorphic Pos	or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Tilled Colle (Co)	X Shallow Aquitard				
Inundation Visible on Aerial Imagery (B7		s)		opographic Relief (D4)			
Sparsely Vegetated Concave Surface (B	· 	FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes	No X Depth (inches):						
Saturation Present? Yes	No X Depth (inches):	Wetlan	d Hydrology Present	? Yes X No			
(includes capillary fringe)							
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, prev	vious inspections), if	available:				
Remarks:							
Nonano.							

ree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1.				Number of Dominant Species			
2				That Are OBL, FACW, or FAC	:	2	_(A)
3				Total Number of Dominant			
4				Species Across All Strata:		3	_(B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC	: 6	6.7%	(A/B)
7.				Prevalence Index worksheet			_ ` ′
		=Total Cover		Total % Cover of:	Mul	tiply by:	
Sapling/Shrub Stratum (Plot size:)			OBL species 15	x 1 =	15	
1.				FACW species 5	x 2 =	10	
2.				FAC species 65	x 3 =	195	
3.				FACU species 45	x 4 =	180	
4.				UPL species 0	x 5 =	0	
5.				Column Totals: 130	(A)	400	— (B)
6.				Prevalence Index = B/A	\ =	3.08	
7.				Hydrophytic Vegetation India	cators:		
		=Total Cover		1 - Rapid Test for Hydroph	ytic Veg	etation	
Herb Stratum (Plot size:1m)				X 2 - Dominance Test is >50)%		
1. Lolium perenne	10	No	FACU	3 - Prevalence Index is ≤3	.0 ¹		
2. Juncus tenuis	50	Yes	FAC	4 - Morphological Adaptati	•		
3. Carex granularis	5	No	FACW	data in Remarks or on a	a separat	te sheet))
4. Carex vulpinoidea	15	Yes	OBL	Problematic Hydrophytic V	/egetatio	n ¹ (Expl	ain)
5. Holcus lanatus	15	Yes	FACU	¹ Indicators of hydric soil and w	etland hy	vdrology	must
6. Lotus corniculatus	5	No	FACU	be present, unless disturbed or			maot
7. Euthamia graminifolia	10	No	FAC	Definitions of Vegetation Str	ata:		
8. Solidago canadensis	10	No	FACU	Tree – Woody plants 3 in. (7.6	cm) or r	more in	
9. Barbarea vulgaris	5	No	FAC	diameter at breast height (DBF	,		height.
10. Phleum pratense	5	No	FACU	Sapling/shrub – Woody plant	s less tha	an 3 in. l	DBH
11				and greater than or equal to 3.			
12				Herb – All herbaceous (non-wo	oody) pla	ants, reg	ardless
	130	=Total Cover		of size, and woody plants less	than 3.2	8 ft tall.	
Woody Vine Stratum (Plot size:)			Woody vines – All woody vine	s greate	r than 3.	.28 ft in
1				height.			
2				Hydrophytic			
3				Vegetation			
4				Present? Yes X	No_		
		=Total Cover					

SOIL Sampling Point 27

Depth	Matrix			(Featur			onfirm the absence o	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/2	100					Loamy/Clayey	gravelly
4-8	10YR 4/2	90	10YR 4/4	10	<u>C</u>		Loamy/Clayey	Distinct redox concentrations
		_		<u> </u>				
		_			_			
		_		_	_			
1Typo: C=Co	ncentration, D=Deple	ation PM	-Paducad Matrix N		kod Sand	Grains	² Location: P	L=Pore Lining, M=Matrix.
Hydric Soil Ir Histosol (Histic Epi Black His Hydrogen Stratified Depleted Thick Dar Mesic Spo (MLRA Iron Mono Sandy Mu Sandy Glo Sandy Re Stripped I Restrictive La	ndicators: A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Below Dark Surface k Surface (A12) odic (A17) A 144A, 145, 149B) oucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) ayer (if observed):		Dark Surface (i Polyvalue Belo MLRA 149B Thin Dark Surfi High Chroma S Loamy Mucky Loamy Gleyed X Depleted Matri Redox Dark Su Depleted Dark Redox Depress Marl (F10) (LR Red Parent Ma	S7) w Surfa control ace (S9) sands (S dineral Matrix ((F3) rface (F Surface sions (F R K, L)	ce (S8) (I) (LRR R S11) (LRF (F1) (LRF F2) S6) (F7) 8)	_RR R, MLRA 1 R K, L) R K, L)	Indicators for 2 cm Mu 2 cm Mu 5 cm Mu Polyvalu Thin Dar Iron-Mar Piedmor Red Par Very Sha Other (E	or Problematic Hydric Soils ³ : ack (A10) (LRR K, L, MLRA 149B) acky Peat or Peat (S3) (LRR K, L, R) be Below Surface (S8) (LRR K, L) ack Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R) ant Floodplain Soils (F19) (MLRA 149B) bent Material (F21) (outside MLRA 145) allow Dark Surface (F22) acxplain in Remarks) actors of hydrophytic vegetation and and hydrology must be present, ass disturbed or problematic.
Depth (inc	ches):						Hydric Soil Preser	nt? Yes X No
Refusal at 8 in	nches							

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	C	ity/County:		Sampling Date: 6	/13/2025		
Applicant/Owner:			State: NY	Sampling Point:	28		
Investigator(s): K Buelow, R Chiarello		Section, Township	o, Range:	_			
Landform (hillside, terrace, etc.): hillside	Local reli	ef (concave, convex, non		Slope 9	%: 3 - 5		
Subregion (LRR or MLRA): LRR L, MLRA 10				 Datum:	•		
Soil Map Unit Name: Hudson	<u></u>		NWI classification:				
· -	tunical for this time of year?			ovalois in Domorko			
Are climatic / hydrologic conditions on the site	,,			explain in Remarks.)			
Are Vegetation, Soil, or Hydrol				ent? Yes X	10		
Are Vegetation, Soil, or Hydrol	ogynaturally problemation	c? (If needed, expl	ain any answers in	Remarks.)			
SUMMARY OF FINDINGS – Attach	site map showing sampl	ling point locations	, transects, im	portant feature	s, etc.		
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area					
Hydric Soil Present?		within a Wetland?	Yes	No X			
Wetland Hydrology Present?		If yes, optional Wetland					
Remarks: (Explain alternative procedures he Upland sampling point for CCE-W22	re or in a separate report.)						
HYDROLOGY							
		Sana	andom (Indicators (n	sinimum of two room	irod\		
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require	ed: check all that annly)		ondary indicators (m Surface Soil Cracks	ninimum of two requi	<u>rea)</u>		
Surface Water (A1)	Water-Stained Leaves (B9		Orainage Patterns (. ,			
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B	•			
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water ⁻	•			
Water Marks (B1)	Hydrogen Sulfide Odor (C1		Crayfish Burrows (C				
Sediment Deposits (B2)		zospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	Presence of Reduced Iron	· · · · · · · · · · · · · · · · · · ·					
Algal Mat or Crust (B4)	Recent Iron Reduction in T		Geomorphic Positio	n (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)						
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	<u> </u>	Microtopographic R	elief (D4)			
Sparsely Vegetated Concave Surface (B	8)	F	FAC-Neutral Test ([05)			
Field Observations:							
Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes	No X Depth (inches):						
Saturation Present? Yes	No X Depth (inches):	Wetland Hyd	Irology Present?	Yes N	10 <u>X</u>		
(includes capillary fringe)	- Marina coall and alambahan marri		hla.				
Describe Recorded Data (stream gauge, mor	illoring well, aerial photos, previo	ous inspections), il avalla	DIE:				
Remarks:							

		Dominant Species?	Indicator Status	Number of Domin That Are OBL, FA Total Number of I Species Across A	ant Species CW, or FA0 Dominant	S	0	_(A)	
1				That Are OBL, FA	.CW, or FA0		-	_(A)	
2				That Are OBL, FA	.CW, or FA0		-	_(A)	
3							2		
4.							2		
5				1			3	(B)	
6				Danaant of Danain	+ 0:			_ ` `	
7.				Percent of Domin That Are OBL, FA			0.0%	(A/B)	
				Prevalence Inde	k workshee	t:			
Sapling/Shrub Stratum (Plot size:)		=Total Cover		Total % Cov	er of:	Mu	Itiply by:		
				OBL species	0	x 1 =	0		
1				FACW species	5	x 2 =	10		
2				FAC species		x 3 =	69		
3.				FACU species		x 4 =	400		
4.				UPL species		x 5 =	100		
5.				Column Totals:	148	(A)	579	(B)	
6.				_	Index = B	-	3.91	— ` ′	
7.				Hydrophytic Veg	etation Ind	icators:			
		=Total Cover		1 - Rapid Tes			getation		
Herb Stratum (Plot size: 1m)				2 - Dominano			,		
1. Lolium perenne	20	Yes	FACU	3 - Prevalenc					
2. Holcus lanatus	40	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supportin					
3. Juncus tenuis	15	No	FAC	data in Remarks or on a separate sheet)					
4. Carex granularis	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)					
5. Lotus corniculatus	25	Yes	FACU	Troblematic Hydrophytic vegetation (Explain)					
6. Asclepias syriaca	15	No	UPL	¹ Indicators of hyd be present, unless				must	
7. Taraxacum officinale	10	No	FACU	Definitions of Ve			natio.		
8. Sisyrinchium angustifolium	8	No	FAC						
9. Daucus carota	5	No	UPL	Tree – Woody pla diameter at breas				heiaht	
10. Phleum pratense	5	No	FACU						
11.		110	1700	Sapling/shrub – and greater than				DBH	
12.							•		
	148	=Total Cover		Herb – All herbacon of size, and wood				ardless	
Woody Vine Stratum (Plot size:)	140	- Total Cover							
				Woody vines – A height.	ll woody vin	es greate	er than 3.	28 ft in	
				neight.					
2				Hydrophytic					
3				Vegetation	Vaa	N.a	V		
4		T-4-1 0		Present?	Yes	NO_	X		
Remarks: (Include photo numbers here or on a separate		=Total Cover							

SOIL Sampling Point 28

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

Depth	Matrix		Redo	x Featur	es				,		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Rem	arks	
0-4	10YR 4/2	100					Loamy/Clayey				
4-8	10YR 3/3	100					Loamy/Clayey				
8-15	10YR 4/2	50	10YR 4/4	5	С	M	Loamy/Clayey		istinct redox	concentration	s
								_			
								_			
											,
	ncentration, D=Deple	etion, RM	I=Reduced Matrix, N	IS=Masl	ked Sand	d Grains.			e Lining, M=N		
Hydric Soil I			Dark Surface (97)					blematic Hyd		2)
Histosol	ipedon (A2)		Dark Surface (Polyvalue Belo		ce (S8) (DD D		-	I0) (LRR K, L eat or Peat (S		
Black His			MLRA 149B		ce (50) (I	LIXIX IX,		-	ow Surface (S		
	n Sulfide (A4)		Thin Dark Surf	•	(I RR R	MI RA 1			ace (S9) (LR I		,
	Layers (A5)		High Chroma S						se Masses (F		R)
	Below Dark Surface	(A11)	Loamy Mucky					_	dplain Soils (I		
	rk Surface (A12)	(, , , , ,	Loamy Gleyed			· · · · · · · · · · · · · · · · · · ·			aterial (F21) ((
	odic (A17)		Depleted Matri		,				Dark Surface		,
	A 144A, 145, 149B)		Redox Dark Su		6)				in Remarks)	/	
	osulfide (A18)		Depleted Dark					. (=/\pis			
	ucky Mineral (S1)		Redox Depress		` '						
	leyed Matrix (S4)		Marl (F10) (LR	-	-,		³ In	dicators o	f hydrophytic	vegetation ar	nd
	edox (S5)		Red Parent Ma		21) (MLF	RA 145)			drology must		
	Matrix (S6)			`	, (-,		-	turbed or prob		
	ayer (if observed):								•		
Type:	, , , , , , , , , , , , , , , , , , , ,										
Depth (in	ches):						Hydric Soil Pre	esent?	Yes	No _X	<u> </u>
Remarks:											
Additional ma	atrix color in 8-15 inch	n depth o	f 10YR 3/2 at 45%.								

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	City/Cou	ınty:	Sampling Date: <u>6/13/2025</u>
Applicant/Owner:		State: NY	Sampling Point: 29
Investigator(s): K Buelow, R Chiarello		Section, Township, Range:	
Landform (hillside, terrace, etc.): hillside	Local relief (con	ncave, convex, none): none	Slope %: 3-5
Subregion (LRR or MLRA): LRR L, MLRA 10	 1 Lat:	Long:	 Datum:
Soil Map Unit Name: Lima		NWI classification:	PEM
Are climatic / hydrologic conditions on the site t	cypical for this time of year?	Yes X No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrold	**	Are "Normal Circumstances" prese	,
Are Vegetation , Soil , or Hydrold	· · · · · · · · · · · · · · · · · · ·	(If needed, explain any answers in	
			•
SUMMARY OF FINDINGS – Attach s		——————————————————————————————————————	iportant leatures, etc.
Hydrophytic Vegetation Present?	Yes X No Is the	Sampled Area	
Hydric Soil Present?	Yes X No within	a Wetland? Yes X	No
Wetland Hydrology Present?	Yes X No If yes,	optional Wetland Site ID:	
Remarks: (Explain alternative procedures her	e or in a separate report.)		
Wetland sample point for CCE-W23			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (r	ninimum of two required)
Primary Indicators (minimum of one is require	d; check all that apply)	Surface Soil Cracks	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns ((B10)
X High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (0	C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible c	n Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed	d Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	oils (C6) X Geomorphic Position	on (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	X Shallow Aquitard (D	03)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic R	• •
Sparsely Vegetated Concave Surface (B8	·)	X FAC-Neutral Test (I	D5)
Field Observations:		T	
	No X Depth (inches):		
Water Table Present? Yes X	No Depth (inches):4		
Saturation Present? Yes X	No Depth (inches):3	Wetland Hydrology Present?	Yes X No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, previous ins	pections), if available:	
Remarks:			
remarks.			

<u>Γree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:			
1				Number of Domina	ant Species			
2				That Are OBL, FA	CW, or FAC:	2		(A)
3				Total Number of D				
4				Species Across Al	l Strata:	2	!	_(B)
5.	_			Percent of Domina		400	00/	(A (D)
6 7.			·	That Are OBL, FA		100.	.0%	(A/B)
/		=Total Cover		Total % Cove		Multip	ly by:	
Sapling/Shrub Stratum (Plot size:	. —	rotal Gover		OBL species		x 1 =	40	
1.	./			FACW species		x 2 =	40	_
	_			FAC species		x 3 =	120	_
				FACU species		x 4 =	60	_
				UPL species		x 5 =	0	_
				· · · · · · · · · · · · · · · · · · ·		(A)	260	— (B)
).).					Index = B/A		2.26	(D)
7.				Hydrophytic Vege			2.20	
		=Total Cover		1 - Rapid Test			ation	
<u>Herb Stratum</u> (Plot size: 1m)		- rotal Govel		X 2 - Dominance		_	auon	
. Phalaris arundinacea	20	No	FACW	X 3 - Prevalence				
2. Juncus tenuis	35	Yes	FAC	4 - Morpholog			de sur	porting
3. Carex vulpinoidea	40	Yes	OBL		narks or on a			-
4. Euthamia graminifolia	5	No	FAC	Problematic H	vdrophytic Ve	egetation ¹	(Expla	ain)
5. Lolium perenne	- 5	No	FACU			_		•
6. Holcus lanatus	10	No	FACU	¹ Indicators of hydr be present, unless				must
7.			17.00	Definitions of Ve		-		
3.					-			
D				Tree – Woody pla diameter at breast				neight.
10.						_		_
11.				Sapling/shrub – \ and greater than o				ВН
12.				Herb – All herbace	oue (non-wo	ndv) nlant	e regs	ardlace
	115	=Total Cover		of size, and woody				aruiess
Woody Vine Stratum (Plot size:)			Woody vines – A	I woody vines	areater t	han 3 :	28 ft in
1				height.	r woody vinco	groutor ti	nan o.	20 11 111
2.								
3.				Hydrophytic Vegetation				
·				_	Yes X	No		
4.		=Total Cover						

SOIL Sampling Point 29

Profile Description: (Descript to the death people to decument the indicator or confirm the change of indicators.)

Depth	Matrix	o the dep		x Featur		ator or ct	onfirm the absence o	n maicators.,		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-6	10YR 3/2	100					Loamy/Clayey			
6-12	10YR 4/1	95	10YR 4/4	5	<u>C</u>	<u>M</u>	Loamy/Clayey	Distinct r	redox conce	entrations
				_						
¹ Type: C=Co	oncentration, D=Deple	etion, RM	=Reduced Matrix, N	MS=Mas	ked San	d Grains.	² Location: F	 PL=Pore Lining	g, M=Matrix	
Black His	(A1) pipedon (A2) stic (A3)		Dark Surface (Polyvalue Belo MLRA 149B	ow Surfa			2 cm Mo 5 cm Mo Polyvalu	f or Problemat uck (A10) (LRf ucky Peat or P ue Below Surfa	R K, L, ML Peat (S3) (L ace (S8) (Ll	RA 149B) RR K, L, R) RR K, L)
Stratified	n Sulfide (A4) I Layers (A5)		Thin Dark Surf	Sands (S	811) (LRI	R K, L)	Iron-Ma	irk Surface (S9 inganese Mass	ses (F12) (L	RR K, L, R)
Thick Da	l Below Dark Surface irk Surface (A12) podic (A17)	(A11)	Loamy Mucky Loamy Gleyed X Depleted Matri	d Matrix (RK, L)	Red Pa	nt Floodplain S rent Material (F nallow Dark Sul	F21) (outsi	de MLRA 145)
(MLR	A 144A, 145, 149B) osulfide (A18)		Redox Dark Si Depleted Dark	urface (F	•			Explain in Rem		
Sandy M	lucky Mineral (S1) leyed Matrix (S4)		Redox Depres Marl (F10) (LR	sions (F	` '		³ Indic	ators of hydrop	phytic vege	tation and
Sandy R	edox (S5) Matrix (S6)	•	Red Parent Ma		21) (ML i	RA 145)	wet	tland hydrology ess disturbed o	y must be p	resent,
Restrictive I	_ayer (if observed):									
Type: Depth (ir	nches):						Hydric Soil Prese	nt? Yo	es X	No
Remarks: Refusal at 12	2 inches									

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	Cit	ity/County:		Sampling Date: 6/13/2025
Applicant/Owner:			State: NY	Sampling Point: 30
Investigator(s): K Buelow, R Chiarello		Section, Town	ship, Range:	<u> </u>
Landform (hillside, terrace, etc.): hillside	Local relie	ef (concave, convex,	none): none	Slope %: 3-5
Subregion (LRR or MLRA): LRR L, MLRA 10		Long:	•	 Datum:
Soil Map Unit Name:			NWI classification:	
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes X	No (If no,	explain in Remarks.)
Are Vegetation , Soil , or Hydrol	logy significantly disturbed			ent? Yes X No
Are Vegetation, Soil, or Hydrol			explain any answers ir	
SUMMARY OF FINDINGS – Attach			•	•
Lindraphytia Vagatatian Procent?	Yes X No I	Is the Sampled Ares		
, , ,		Is the Sampled Area within a Wetland?	Yes X	No
•		If yes, optional Wetla		<u> </u>
Remarks: (Explain alternative procedures he Wet sample point for CCE-W23	re or in a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:	L. Construction of a month of	<u>s</u>		minimum of two required)
Primary Indicators (minimum of one is require			Surface Soil Crack	
Surface Water (A1) X High Water Table (A2)	Water-Stained Leaves (B9)		Drainage Patterns Moss Trim Lines (E	
X Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)	_	Moss Trim Lines (E Dry-Season Water	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	_	Crayfish Burrows (
Sediment Deposits (B2)	Oxidized Rhizospheres on L		<u> </u>	on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (Stunted or Stresse	=
Algal Mat or Crust (B4)	Recent Iron Reduction in Til		X Geomorphic Positi	
Iron Deposits (B5)	Thin Muck Surface (C7)	` '	X Shallow Aquitard (I	
Inundation Visible on Aerial Imagery (B7)			Microtopographic F	·
Sparsely Vegetated Concave Surface (Bi	·—	_	FAC-Neutral Test (
Field Observations:	/		_	/
Surface Water Present? Yes	No X Depth (inches):			
Water Table Present? Yes X	No Depth (inches):	6		
Saturation Present? Yes X	No Depth (inches):		Hydrology Present?	Yes X No
(includes capillary fringe)			,	
Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, previo	ous inspections), if av	railable:	
Remarks:				

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	70 0010.	оросия.		
2.	_			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
3.				
4.				Total Number of Dominant Species Across All Strata: 1 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)			OBL species 10 x 1 = 10
1.				FACW species 0 x 2 = 0
2.				FAC species 75 x 3 = 225
3.				FACU species 10 x 4 = 40
4.				UPL species 0 x 5 = 0
5.				Column Totals: 95 (A) 275 (B)
6.				Prevalence Index = B/A = 2.89
7.				Hydrophytic Vegetation Indicators:
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 1m)				X 2 - Dominance Test is >50%
1. Juncus tenuis	65	Yes	FAC	X 3 - Prevalence Index is ≤3.0 ¹
2. Carex vulpinoidea	10	No	OBL	4 - Morphological Adaptations ¹ (Provide supporting
3. Lolium perenne	10	No	FACU	data in Remarks or on a separate sheet)
4. Euthamia graminifolia	10	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5.				¹ Indicators of hydric soil and wetland hydrology must
6.				be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
10.				Sapling/shrub – Woody plants less than 3 in. DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.				Harb All berbasseus (non woody) plants, regardless
		=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:)			Woody vines All woody vines greater than 2.29 ft in
1	_			Woody vines – All woody vines greater than 3.28 ft in height.
2.				
3.				Hydrophytic Vegetation
4.				Present? Yes X No
		=Total Cover		<u> </u>

SOIL Sampling Point 30 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Loc² (inches) Color (moist) % Color (moist) Texture Remarks Type¹ 0-6 10YR 3/2 100 Loamy/Clayey 6-12 10YR 4/1 95 10YR 4/4 Loamy/Clayey Distinct redox concentrations ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Polyvalue Below Surface (S8) (LRR K, L) Black Histic (A3) MLRA 149B) Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR K, L) Stratified Layers (A5) High Chroma Sands (S11) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) X Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F1) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA 149B) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Red Parent Material (F21) (outside MLRA 145) Very Shallow Dark Surface (F22) Mesic Spodic (A17) Depleted Matrix (F3) (MLRA 144A, 145, 149B) Redox Dark Surface (F6) Other (Explain in Remarks) Iron Monosulfide (A18) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Marl (F10) (LRR K, L) ³Indicators of hydrophytic vegetation and Sandy Redox (S5) Red Parent Material (F21) (MLRA 145) wetland hydrology must be present, Stripped Matrix (S6) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** No Yes X Remarks: Refusal at 12 inches, gravel present

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	Cit	ty/County:	Sampling Date: 6/13/2025				
Applicant/Owner:		State: NY	Sampling Point: 31				
Investigator(s): K Buelow, R Chiarello		Section, Township, Range:					
Landform (hillside, terrace, etc.): hillside	Local relie	ef (concave, convex, none): none	Slope %: 3-5				
Subregion (LRR or MLRA): LRR L, MLRA	 101	Long:	 Datum:				
Soil Map Unit Name: Lima		NWI classification:					
Are climatic / hydrologic conditions on the si	te typical for this time of year?	Yes X No (If no,	explain in Remarks.)				
, ,	,						
Are Vegetation , Soil , or Hyd		•					
Are Vegetation, Soil, or Hyd			·				
SUMMARY OF FINDINGS – Attac	n site map showing sampli	ing point locations, transects, in	portant features, etc.				
Hydrophytic Vegetation Present?	Yes No X I	Is the Sampled Area					
Hydric Soil Present?		within a Wetland? Yes	No X				
Wetland Hydrology Present?	Yes No X	If yes, optional Wetland Site ID:					
Remarks: (Explain alternative procedures	here or in a separate report.)						
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indicators (n	ninimum of two required)				
Primary Indicators (minimum of one is requ	uired; check all that apply)	Surface Soil Cracks					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)				
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B	16)				
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water	Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		,				
Sediment Deposits (B2)	Oxidized Rhizospheres on L	· · · —	n Aerial Imagery (C9)				
Drift Deposits (B3)	Presence of Reduced Iron (
Algal Mat or Crust (B4)	Recent Iron Reduction in Til						
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D	•				
Inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface	· · · · · · · · · · · · · · · · · · ·	Microtopographic R FAC-Neutral Test (l					
	(00)	FAC-Neutral Test (I	23)				
Field Observations: Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes	No X Depth (inches): No X Depth (inches):						
Saturation Present? Yes	No X Depth (inches):		Yes No_X_				
(includes capillary fringe)			<u></u>				
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, previo	ous inspections), if available:					
Remarks:							

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	workshee	et:				
				No web as of Domeis						
2.				Number of Domir That Are OBL, FA			0	(A)		
3.				Total Number of I	Cominant			_		
4.				Species Across A			2	(B)		
5.				Percent of Domin	ant Specie	s				
6				That Are OBL, FA			0.0%	(A/B)		
7				Prevalence Inde	x workshe	et:				
		=Total Cover		Total % Cov	er of:	М	ultiply by:			
Sapling/Shrub Stratum (Plot size:)			OBL species	0	x 1 =	0			
1				FACW species	0	x 2 =	0			
2.				FAC species	5	x 3 =	15			
3.				FACU species	80	x 4 =	320			
i				UPL species	45	x 5 =	225			
5.				Column Totals:	130	(A)	560	(B)		
S				Prevalence	e Index = E	3/A =	4.31			
7.				Hydrophytic Veg	etation In	dicators:				
		=Total Cover		1 - Rapid Tes	t for Hydro	phytic Ve	getation			
Herb Stratum (Plot size:1m)				2 - Dominano	e Test is >	50%				
Securigera varia	40	Yes	UPL	3 - Prevalenc	e Index is	≤3.0 ¹				
2. Lolium perenne	40	Yes	FACU	4 - Morpholog	gical Adapt	ations ¹ (F	rovide su	pporting		
3. Taraxacum officinale	10	No	FACU	data in Re	marks or o	n a separ	ate sheet)		
1. Daucus carota	5	No	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)						
5. Symphyotrichum lateriflorum	5	No	FAC	¹ Indicators of hyd	ric soil and	wotland	bydrology	muet		
6. Plantago lanceolata	5	No	FACU	be present, unles				must		
7. Lotus corniculatus	25	No	FACU	Definitions of Ve	getation S	Strata:				
3.				Tree – Woody pla	ants 3 in <i>(7</i>	7 6 cm) o	more in			
9				diameter at breas				height.		
10				Sapling/shrub –	Woody pla	ints less t	han 3 in	DBH		
11				and greater than				55		
12.				Herb – All herbac	eous (non-	-woody) r	lants red	ardless		
	130	=Total Cover		of size, and wood				ai aiooo		
Noody Vine Stratum (Plot size:)			Woody vines – A	all woody vi	ines grea	ter than 3	28 ft in		
I				height.	Woody V	iiioo gi oa	tor triair o	.20 11 111		
2.										
3.				Hydrophytic Vegetation						
4					Yes	No	X			
		=Total Cover								

SOIL Sampling Point 31

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

Depth	Matrix			x Featur						
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Rema	arks
0-6	10YR 4/2	100					Loamy/Clayey			
6-18	10YR 4/3	95	10YR 4/4	5	<u>C</u>	<u>M</u>	Loamy/Clayey	F	aint redox co	oncentrations
		<u> </u>								
		_			_	_				
		_			_	_				
		_		_	_	_				
¹Type: C=Cc	oncentration, D=Depl	letion RM			ked Sand		² l ocation:	OI =Pore	Lining, M=M	
Hydric Soil		ietion, raiv	i-Reduced Matrix, N	IO-IVIAS	ikeu Sain	d Grains.			lematic Hyd	
Histosol			Dark Surface (S7)					_	, MLRA 149B)
Histic Ep	oipedon (A2)		Polyvalue Belo	w Surfa	ice (S8) (LRR R,	5 cm M	ucky Pea	at or Peat (S	3) (LRR K, L, R)
Black Hi	stic (A3)		MLRA 149B)			Polyval	ue Below	≀ Surface (S8	8) (LRR K, L)
Hydroge	n Sulfide (A4)		Thin Dark Surfa				149B) Thin Da	rk Surfa	ce (S9) (LRF	R K, L)
	d Layers (A5)		High Chroma S	Sands (S	S11) (LRI	R K, L)	Iron-Ma	nganese	: Masses (F1	12) (LRR K, L, R)
Depleted	d Below Dark Surface	e (A11)	Loamy Mucky	Mineral	(F1) (LR	R K, L)	Piedmo	nt Flood	plain Soils (F	=19) (MLRA 149B)
	ark Surface (A12)		Loamy Gleyed	Matrix ((F2)		Red Pa	rent Mat	erial (F21) (c	outside MLRA 145
Mesic Sp	podic (A17)		Depleted Matri	к (F3)			Very SI	nallow Da	ark Surface (F22)
(MLR	A 144A, 145, 149B)		Redox Dark Su	ırface (F	- 6)		Other (Explain ir	n Remarks)	
Iron Mon	nosulfide (A18)		Depleted Dark	Surface	e (F7)					
Sandy M	lucky Mineral (S1)		Redox Depress	ions (F	8)					
Sandy G	Bleyed Matrix (S4)		Marl (F10) (LR	R K, L)			³ Indio	ators of	hydrophytic	vegetation and
Sandy R	Redox (S5)		Red Parent Ma	terial (F	21) (MLF	RA 145)	we	tland hyd	drology must	be present,
Stripped	Matrix (S6)						unl	ess distu	urbed or prob	olematic.
	Layer (if observed):									
Type: Depth (ir	nches):						Hydric Soil Prese	ent?	Yes	No X
Remarks:	,									
Soil gravelly										

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	C	ity/County:		Sampling Date: 6/13	/2025
Applicant/Owner:			State: NY	Sampling Point:	32
Investigator(s): K Buelow, R Chiarello		Section, Townsh	nip, Range:	<u> </u>	
Landform (hillside, terrace, etc.): hillside	Local reli	ief (concave, convex, no	one): none	Slope %:	2-4
Subregion (LRR or MLRA): LRR L, MLRA 10		Long:		 Datum:	
Soil Map Unit Name: Hudson-Cayuga			NWI classification:		
·	tunical for this time of year?	Voe Y	_	explain in Remarks.)	
Are climatic / hydrologic conditions on the site		Yes X			
Are Vegetation, Soil, or Hydrol				ent? Yes X No	
Are Vegetation, Soil, or Hydrol			plain any answers in		
SUMMARY OF FINDINGS – Attach	site map showing sampl	ling point location	ıs, transects, im	iportant features,	etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area			
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X	If yes, optional Wetland	d Site ID:		
Remarks: (Explain alternative procedures he					
Upland sample point in potential wet area in o	corner of western field				
HYDROLOGY					
Wetland Hydrology Indicators:		Sec	condary Indicators (m	ninimum of two required	<u>(t</u>
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil Cracks	s (B6)	
Surface Water (A1)	Water-Stained Leaves (B9)		_Drainage Patterns (
High Water Table (A2)	Aquatic Fauna (B13)		_Moss Trim Lines (B	· ·	
Saturation (A3)	Marl Deposits (B15)		_Dry-Season Water		
Water Marks (B1)	Hydrogen Sulfide Odor (C1		Crayfish Burrows (C	•	
Sediment Deposits (B2)	Oxidized Rhizospheres on			on Aerial Imagery (C9)	
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron Recent Iron Reduction in T	· · ·	Stunted or Stressed Geomorphic Positio	` '	
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D		
Inundation Visible on Aerial Imagery (B7)			Microtopographic R	•	
Sparsely Vegetated Concave Surface (B	· ` ' '		FAC-Neutral Test (
Field Observations:	/		<u>- ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `</u>		
Surface Water Present? Yes	No X Depth (inches):				
Water Table Present? Yes	No X Depth (inches):				
Saturation Present? Yes	No X Depth (inches):	Wetland Hy	ydrology Present?	Yes No	Х
(includes capillary fringe)					
Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, previo	ous inspections), if avai	ilable:		
Remarks: Some surfave moisture present - recent prec	sinitation likely cause				
Some sunave moisture present - recent prec	ipitation likely cause.				

	of plants.			1	Sampling Po		32
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Tes	t worksheet:		
1				Number of Domii	nant Species		
2				That Are OBL, F	ACW, or FAC:	2	(A)
3				Total Number of	Dominant		
4				Species Across A	All Strata:	3	(B)
5. 6.	That Are ORL EACIA			•	66.7%	(A/B	
7.				Prevalence Inde			
		=Total Cover		Total % Co	ver of:	Multiply by	v:
Sapling/Shrub Stratum (Plot size:				OBL species		1 = 25	
1				FACW species		2 = 10)
2.				FAC species		3 = 18	
				FACU species		4 = 38	
				UPL species		5 = 25	
_				Column Totals:		(a) 62	
				_	e Index = B/A =		
7.				Hydrophytic Veg			
		=Total Cover			st for Hydrophyti		n
Herb Stratum (Plot size: 1m)		rotal Gover		X 2 - Dominand		o vogotatioi	
1. Lolium perenne	40	Yes	FACU		ce Index is ≤3.0 ¹		
2. Juncus tenuis	50	Yes	FAC		gical Adaptation	s ¹ (Provide s	supporti
3. Carex vulpinoidea	25	Yes	OBL	·	marks or on a se	•	
Holcus lanatus	20	No	FACU	Problematic	Hydrophytic Veg	etation ¹ (Ev	nlain)
5. Lotus corniculatus	20	No	FACU	1.			
6. Symphyotrichum lateriflorum	10	No	FAC	¹ Indicators of hyd be present, unles			gy must
7. Rubus flagellaris		No	FACU	Definitions of V	•		-
8. Carex granularis		No	FACW		_		
9. Plantago major	5	No	FACU	Tree – Woody pl diameter at breas	·		
10. Phleum pratense		No	FACU			_	
11. Daucus carota		No	UPL	Sapling/shrub – and greater than			
12.							
· - ·	190	=Total Cover		Herb – All herba	,		U
Woody Vine Stratum (Plot size:		rotal Gover					
· ,				Woody vines – height.	All woody vines (greater than	3.28 ft i
1 2				noight.			
				Hydrophytic			
				Vegetation Present?	Yes X	No	
4.		=Total Cover		110001111	<u> </u>		
Donards // Jacks donards which would be a bound		- Total Covel					
Remarks: (Include photo numbers here or on a	separate sneet.)						

SOIL Sampling Point 32

Depth	Matrix			Featur			onfirm the absence o	indicatorol,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks
0-4	10YR 4/3	98	10YR 4/4	2	<u>C</u>	M	Loamy/Clayey	Faint redox	concentrations
4-8	10YR 3/6	90	10YR 4/2	10	C	<u>M</u>	Loamy/Clayey	Prominent red	ox concentrations
						_			
						_			
						_			
Type: C=Co		etion, RN	1=Reduced Matrix, M	IS=Mas	ked Sand	l Grains.		PL=Pore Lining, Ma for Problematic H	
Histosol			Dark Surface (S		uco (SS) (I	DD D	2 cm Mu	uck (A10) (LRR K ,	
Black His			MLRA 149B)		ice (30) (i	LIXIX IX,		ucky Feat of Feat ue Below Surface (
	n Sulfide (A4)		Thin Dark Surfa) (LRR R	, MLRA 1		rk Surface (S9) (L	
	Layers (A5)		High Chroma S						F12) (LRR K, L, R)
Depleted	Below Dark Surface	(A11)	Loamy Mucky N	Mineral	(F1) (LRI	R K, L)	Piedmoi	nt Floodplain Soils	(F19) (MLRA 149B)
Thick Da	rk Surface (A12)		Loamy Gleyed	Matrix ((F2)		Red Par	rent Material (F21)	(outside MLRA 145)
Mesic Sp	odic (A17)		Depleted Matrix	(F3)			Very Sh	allow Dark Surface	e (F22)
(MLR	A 144A, 145, 149B)		Redox Dark Su	rface (F	- 6)		Other (E	Explain in Remarks	s)
Iron Mon	osulfide (A18)		Depleted Dark	Surface	e (F7)				
Sandy M	ucky Mineral (S1)		Redox Depress	ions (F	8)				
Sandy G	eyed Matrix (S4)		Marl (F10) (LRI	R K, L)			³ Indica	ators of hydrophyti	ic vegetation and
Sandy Re	edox (S5)		Red Parent Ma	terial (F	21) (MLF	RA 145)	wet	land hydrology mu	ist be present,
Stripped	Matrix (S6)						unle	ess disturbed or pr	oblematic.
	ayer (if observed):								
Type: _ Depth (in	ches):						Hydric Soil Prese	nt? Yes_	NoX
Remarks: Refusal at 8 i	nches								

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	City/County:		Sampling Date: <u>6/13/2025</u>
Applicant/Owner:		State: NY	Sampling Point: 33
Investigator(s): K Buelow, R Chiarello	Secti	ion, Township, Range:	<u></u>
Landform (hillside, terrace, etc.): hillside	Local relief (concave,	, convex, none): none	Slope %: _ 1-2
Subregion (LRR or MLRA): LRR L, MLRA 101	Lat:	Long:	Datum:
Soil Map Unit Name: Ovid		NWI classification:	PEM/SS
Are climatic / hydrologic conditions on the site typical f	or this time of year?	s X No (If no, e	xplain in Remarks.)
Are Vegetation, Soil, or Hydrology	·	e "Normal Circumstances" preser	•
Are Vegetation, Soil, or Hydrology		needed, explain any answers in F	
SUMMARY OF FINDINGS – Attach site m		· · · · ·	
Hydrophytic Vegetation Present? Yes > Hydric Soil Present? Yes > Wetland Hydrology Present? Yes >	No within a We		No
Remarks: (Explain alternative procedures here or in	a separate report.)		
Wetland hole for CCE W18			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (mi	nimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface Soil Cracks	(B6)
X Surface Water (A1) Wa	ater-Stained Leaves (B9)	Drainage Patterns (B	310)
X High Water Table (A2)Aq	uatic Fauna (B13)	Moss Trim Lines (B1	6)
X Saturation (A3) Ma	rl Deposits (B15)	Dry-Season Water T	able (C2)
Water Marks (B1) Hy	drogen Sulfide Odor (C1)	Crayfish Burrows (C8	3)
Sediment Deposits (B2) Ox	idized Rhizospheres on Living Roots	s (C3) Saturation Visible on	Aerial Imagery (C9)
Drift Deposits (B3)	esence of Reduced Iron (C4)	Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	cent Iron Reduction in Tilled Soils (C	C6) Geomorphic Position	ı (D2)
 -	in Muck Surface (C7)	Shallow Aquitard (D3	
	her (Explain in Remarks)	Microtopographic Re	
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D	
Field Observations:		_	·
Surface Water Present? Yes X No	Depth (inches): 0.5		
Water Table Present? Yes X No	Depth (inches): 1		
Saturation Present? Yes X No	Depth (inches): 1 Depth (inches): 0 V	Wetland Hydrology Present?	Yes X No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring v	well aerial photos, previous inspection	ons). if available:	
, , , , , , , , , , , , , , , , , , , ,	,,,	oo,,	
Remarks:			

VEGETATION – Use scientific names of plants. Sampling Point: Absolute Dominant Indicator % Cover <u>Tree Stratum</u> (Plot size: Species? Status **Dominance Test worksheet: Number of Dominant Species** 2. That Are OBL, FACW, or FAC: 5 (A) 3. Total Number of Dominant 4. Species Across All Strata: 7 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 71.4% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: Multiply by: Sapling/Shrub Stratum (Plot size: 3m) OBL species x 1 = 1. Fraxinus pennsylvanica **FACW** species 20 x 2 = 2. FAC species 40 x 3 = 120 3. 25 FACU species x 4 = 100 4. UPL species 0 x 5 = 0 5. Column Totals: 115 290 (A) 6. Prevalence Index = B/A = 2.52 **Hydrophytic Vegetation Indicators:** 10 =Total Cover 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: X 2 - Dominance Test is >50% Epilobium coloratum Yes OBL X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations (Provide supporting 2. 20 Euthamia graminifolia Yes **FAC** data in Remarks or on a separate sheet) Yes 3. Solidago altissima 10 **FACU** Problematic Hydrophytic Vegetation¹ (Explain) 4. Apocynum cannabinum 10 Yes FAC 5. Persicaria pensylvanica 10 Yes **FACW** ¹Indicators of hydric soil and wetland hydrology must Yes 6. Lolium perenne 10 **FACU** be present, unless disturbed or problematic. 5 7. Rumex crispus No FAC **Definitions of Vegetation Strata:** 5 8. Cardamine hirsuta No **FACU** Tree - Woody plants 3 in. (7.6 cm) or more in 9. Ranunculus acris 5 FAC 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. 11. Herb - All herbaceous (non-woody) plants, regardless 105 =Total Cover of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: ____) Woody vines - All woody vines greater than 3.28 ft in height. Hydrophytic 3. Vegetation Present? Yes X No ___ =Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point 33

Depth	Matrix		Redox	x Featur	es		onfirm the absence o		
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 4/2	100					Loamy/Clayey		
4-10	10YR 4/2	95	10YR 4/4	5	<u>C</u>	<u>M</u>	Loamy/Clayey	Distinct redox conce	ntrations
10-18	10YR 3/3	70	10YR 3/1	25	D	M	Loamy/Clayey		
¹ Type: C=Co	oncentration, D=Dep	letion, RN	//=Reduced Matrix, M	IS=Mas	ked Sanc	Grains.	² Location: F	PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric S	oils³:
Histosol			Dark Surface (S					uck (A10) (LRR K, L, MLF	•
	oipedon (A2)		Polyvalue Belo		ce (S8) (I	LRR R,		ucky Peat or Peat (S3) (LF	•
Black His	stic (A3) n Sulfide (A4)		MLRA 149B) Thin Dark Surfa	,) /I PP P	MI DA 1		ıe Below Surface (S8) (LF rk Surface (S9) (LRR K, L	· ·
	I Layers (A5)		High Chroma S					nganese Masses (F12) (L	-
	Below Dark Surface	e (A11)	Loamy Mucky I					nt Floodplain Soils (F19) (-
	ırk Surface (A12)		Loamy Gleyed			. ,		ent Material (F21) (outsic	
Mesic Sp	oodic (A17)		X Depleted Matrix					allow Dark Surface (F22)	
	A 144A, 145, 149B)		Redox Dark Su		-		Other (E	Explain in Remarks)	
	osulfide (A18)		Depleted Dark						
	lucky Mineral (S1) leyed Matrix (S4)		Redox Depress Marl (F10) (LR		8)		³ Indic	ators of hydrophytic veget	tation and
	edox (S5)		Red Parent Ma		21) (MLF	RA 145)		land hydrology must be pi	
	Matrix (S6)				, (,		ess disturbed or problema	
Restrictive L	_ayer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Prese	nt? Yes X	No
Remarks:			<u> </u>						
	dox concentration ob	served ir	the soil matrix at 5%	6 = 10Y	R 3/4/				

WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

Project/Site:	City/County: Sampling Date: 6/13/2025
Applicant/Owner:	State: NY Sampling Point: 34
Investigator(s): K Buelow, R Chiarello	Section, Township, Range:
Landform (hillside, terrace, etc.): hillside Local	relief (concave, convex, none): none Slope %: 1-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat:	Long: Datum:
Soil Map Unit Name: Ovid	NWI classification:
· · · · · · · · · · · · · · · · · · ·	
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignificantly distur	
Are Vegetation, Soil, or Hydrologynaturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing same	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No X No X	within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Tromanto. (Explain anomative procedures here of in a separate report.)	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves ((B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor	
Sediment Deposits (B2) Oxidized Rhizospheres	
Drift Deposits (B3) Presence of Reduced Ir	
Algal Mat or Crust (B4) Recent Iron Reduction in	
Iron Deposits (B5) — Thin Muck Surface (C7) — Other (Fynicin in Remainder)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remain Sparsely Vegetated Concave Surface (B8)	rks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
	(D3)
Field Observations: Surface Water Present? Yes No X Depth (inches):	
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
Remarks:	

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet	:		
1.		<u> </u>		Number of Domir	ant Species			
2.				That Are OBL, FA			1	(A)
3.				Total Number of I	Cominant			
4.				Species Across A			3	(B)
5. 6.	- '			Percent of Domin	•		33.3%	(A/B)
7.				Prevalence Inde		_		_` ′
		=Total Cover		Total % Cov	ver of:	Mu	ıltiply by:	
Sapling/Shrub Stratum (Plot size:)			OBL species	0	x 1 =	0	
1.				FACW species	5	x 2 =	10	
2.				FAC species	25	x 3 =	75	
3.				FACU species	60	x 4 =	240	
4.				UPL species	30	x 5 =	150	
5				Column Totals:	120	(A)	475	— (B)
6.				_	e Index = B	-	3.96	`
7.				Hydrophytic Veg				
		=Total Cover		1 - Rapid Tes			getation	
Herb Stratum (Plot size: 1m)				2 - Dominano			5	
1. Lolium perenne	30	Yes	FACU	3 - Prevalenc	e Index is ≤	3.0 ¹		
2. Solidago altissima	20	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supportir			pporting	
3. Juncus tenuis	20	Yes	FAC	data in Re	marks or on	a separa	ate sheet))
4. Daucus carota	15	No	UPL	Problematic I	Hydrophytic	Vegetation	on ¹ (Expla	ain)
5. Leucanthemum vulgare	15	No	UPL	1 In dia atawa of build		المصلفين		
6. Ranunculus acris	5	No	FAC	¹ Indicators of hyd be present, unles				musi
7. Medicago lupulina	5	No	FACU	Definitions of Ve	getation St	trata:		
8. Plantago major	5	No	FACU	Tree – Woody pla	ento 2 in 7	6 om) or	moro in	
9. Fraxinus pennsylvanica	5	No	FACW	diameter at breas				height.
10.				Sapling/shrub –	Woody plan	nte lace th	nan 3 in I	DRH
11				and greater than				ווטט
12	120	-Tatal Causa		Herb – All herbactof size, and wood				ardless
Woody Vine Stratum (Plot size:		=Total Cover						
1.				Woody vines – A height.	All woody vin	ies great	er than 3.	.28 ft in
2.				<u> </u>				
3.				Hydrophytic				
4.				Vegetation Present?	Yes	No	X	
		=Total Cover				-		

SOIL Sampling Point 34 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Loc² (inches) Color (moist) % Color (moist) Texture Remarks Type¹ 0-6 10YR 3/3 60 2nd matix 10YR 3/2 at 40% Loamy/Clayey 6-18 10YR 3/4 70 Loamy/Clayey 2nd matix 10YR 3/2 at 30% ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Polyvalue Below Surface (S8) (LRR K, L) Black Histic (A3) MLRA 149B) Hydrogen Sulfide (A4) Thin Dark Surface (S9) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR K, L) Stratified Layers (A5) High Chroma Sands (S11) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F1) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA 149B) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Red Parent Material (F21) (outside MLRA 145) Very Shallow Dark Surface (F22) Mesic Spodic (A17) Depleted Matrix (F3) (MLRA 144A, 145, 149B) Redox Dark Surface (F6) Other (Explain in Remarks) Iron Monosulfide (A18) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Marl (F10) (LRR K, L) ³Indicators of hydrophytic vegetation and Sandy Redox (S5) Red Parent Material (F21) (MLRA 145) wetland hydrology must be present, Stripped Matrix (S6) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** Yes No Remarks:

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

City/Cou	nty: Lansing / Tompkins	Sampling Date: 6/13/2025
	State:	Sampling Point: CCE-SB40
	Section, Township, Range:	
Local relief (con	cave, convex, none):	Slope %:
Lat:	Long:	Datum:
	NWI classification	1:
e typical for this time of year?	Yes X No (If no	o, explain in Remarks.)
(52)	Are "Normal Circumstances" pre	
	45 65 65	1,0
Yes No X within	a Wetland? Yes	No_X_
	Secondary Indicators	(minimum of two required)
	Surface Soil Crac	
Water-Stained Leaves (B9)	Drainage Patterns	
	(i) (i) (i) (
	-	· ·
No Depth (inches):		
No Depth (inches):		
No Depth (inches):	Wetland Hydrology Present?	? Yes No _X
		2 1 1. 10 - 2
initoring well, aerial photos, previous ins	pections), if available:	
7	Local relief (con Lat: e typical for this time of year? lology N significantly disturbed? lology N naturally problematic? I site map showing sampling p Yes No X within Yes No X within Yes No X ls the within If yes, lere or in a separate report.) red: check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks) B8) No Depth (inches): No Depth (inches): No Depth (inches):	

VEGETATION – Use scientific names of plants.

Torra Stantone (Bl. 1 i and a a	Absolute	Dominant	Indicator	Bardina Tartandakat
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1. <u>Juniperus virginiana</u>	5	Yes	FACU_	Number of Dominant Species
2				That Are OBL, FACW, or FAC:3 (A)
3				Total Number of Dominant
4		. —		Species Across All Strata:6 (B)
5		. ——		Percent of Dominant Species
6				That Are OBL, FACW, or FAC:(A/B)
7	à.			Prevalence Index worksheet:
	5	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
1. Rhamnus cathartica	70	Yes	FAC	FACW species 15 x 2 = 30
2.				FAC species90 x 3 =270
3.	2			FACU species 41 x 4 = 164
4				UPL species10 x 5 =50
5.				Column Totals: 156 (A) 514 (B)
6.				Prevalence Index = B/A = 3.29
7.				Hydrophytic Vegetation Indicators:
	70	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		•		2 - Dominance Test is >50%
1. Galium mollugo	15	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹
2. Lotus corniculatus	45	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
3. Fraxinus pennsylvanica	15	Yes	FACW	data in Remarks or on a separate sheet)
4. Juncus tenuis	15	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5. Daucus carota	10	No	UPL	
6. Fragaria virginiana	3	No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. Euthamia graminifolia	3	No No	FAC	Definitions of Vegetation Strata:
Elaeagnus angustifolia	3	No	FACU	Definitions of Vegetation Strata.
Symphyotrichum lateriflorum		No No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		- 140	- TAC	diameter at breast neight (DBH), regardless of height.
10.		. ——		Sapling/shrub – Woody plants less than 3 in. DBH
11	7	-	-	and greater than or equal to 3.28 ft (1 m) tall.
12	- 04			Herb – All herbaceous (non-woody) plants, regardless
	81	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1		. ——		height.
2.		· ——		Hydrophytic
3	<u>A</u>			Vegetation
4				Present? Yes NoX
		=Total Cover		
Remarks: (Include photo numbers here or on a separ	ate sheet.)			

Sampling Point: CCE-SB40

SOIL Sampling Point CCE-SB40

	ription: (Describe to Matrix	o the de		iment the x Feature		ator or co	onfirm the absence of ind	icators.)	
Depth (inches)	Color (moist)	%	Color (moist)	% reature	Type ¹	Loc ²	Texture	Remarks	
0 - 4	10YR 4/2	100			Турс		Loamy/Clayey	Remarks	
4 - 8	10YR 4/3	100		—			W. S.	Chala propert	
4-0	1011 4/3			—			Loamy/Clayey	Shale present	
8 - 18	10YR 4/3	95	10YR 4/6	5	<u>C</u>	PL	Loamy/Clayey	Shale present	
									
	-					· 			
50									
1)	1 2.	<u> </u>	i u Ar			1	 		-
-	-	—	<u> </u>	—		-			
			·						
-	<u>,, </u>		s.		-	·			271
¹Type: C=Cc	oncentration, D=Deple	otion PA	A-Poducod Matrix N		od San	——	2l ocation: PI =Pi	ore Lining, M=Matrix.	
Hydric Soil I		Buon, Ki	n-Reduced Matrix, IV	IS-IVIASI	keu San	d Grains.		oblematic Hydric Soils ³ :	
Histosol			Dark Surface (S	S7)				A10) (LRR K, L, MLRA 149	3B)
	ipedon (A2)		Polyvalue Belo	3 850	ce (S8) (LRR R,	4 1 - 1 4	Redox (A16) (LRR K, L, F	
Black His			MLRA 149B))			5 cm Mucky	Peat or Peat (S3) (LRR K,	L, R)
Hydroge	n Sulfide (A4)		Thin Dark Surfa	ace (S9)	(LRR R	, MLRA	Polyvalue Be	low Surface (S8) (LRR K,	L)
	Layers (A5)		High Chroma S					rface (S9) (LRR K, L)	
	Below Dark Surface	(A11)	Loamy Mucky N			RK, L)		ese Masses (F12) (LRR K,	8_18
	rk Surface (A12)		Loamy Gleyed	- 20mments 85	F2)		the state of the s	odplain Soils (F19) (MLRA	
	odic (A17)		Pepleted Matrix Redox Dark Su	Committee of the commit	6)			Material (F21) (outside ML Dark Surface (F22)	KA 145)
	A 144A, 145, 149B) ucky Mineral (S1)		Depleted Dark					in in Remarks)	
	leyed Matrix (S4)		Redox Depress					ii ii rtomano)	
	edox (S5)		Marl (F10) (LRI				³ Indicators of	hydrophytic vegetation an	d
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (ML F	RA 145)	wetland hy	drology must be present,	
			S				unless dist	urbed or problematic.	
	.ayer (if observed):								
Type: _									
Depth (in	ches):						Hydric Soil Present?	Yes No X	_
Remarks:									

WETLAND DETERMINATION DATA SHEET - Northcentral and Northeast Region

See ERDC/EL TR-12-1; the proponent agency is CECW-COR

Project/Site: Cayuga Concept Engineering	City/County	Lansing / Tompkins	Sampling Date: 6/13/2025
Applicant/Owner: Beowulf		State: NY	Sampling Point: CCE-SB-41
Investigator(s):	Sec	ction, Township, Range:	
Landform (hillside, terrace, etc.):	Local relief (concav	ve, convex, none):	Slope %:
Subregion (LRR or MLRA): LRR L, MLRA 101	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI classification:	
Are climatic / hydrologic conditions on the site typic	cal for this time of year?	'es No (If no, e	explain in Remarks.)
Are Vegetation N , Soil N , or Hydrology		Are "Normal Circumstances" prese	nt? Yes No
Are Vegetation N, Soil N, or Hydrology		If needed, explain any answers in	
SUMMARY OF FINDINGS – Attach site	The second that the second tha	15 No. 15	15
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	X No within a V	mpled Area Wetland? Yes_X_	No
Wetland Hydrology Present? Yes	X No If yes, opt	tional Wetland Site ID:	
Remarks: (Explain alternative procedures here or	in a separate report.)		
Wet boring for W30			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (m	inimum of two required)
Primary Indicators (minimum of one is required; cl	neck all that apply)	Surface Soil Cracks	
X Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
X High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B1	16)
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water T	Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C	8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roo	ots (C3) Saturation Visible or	n Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils	(C6) Geomorphic Position	n (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (Di	3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Re	
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D	05)
Field Observations:			
Surface Water Present? Yes X No	Depth (inches):0.5		
Water Table Present? Yes X No	Depth (inches):10		
Saturation Present? Yes X No	Depth (inches): 0.5 Depth (inches): 10 Depth (inches): 10	Wetland Hydrology Present?	Yes _ X _ No
(includes capillary fringe)	D 45		W 40 M N
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	ctions), if available:	
Remarks:			
Nemarks.			

$\label{eq:VEGETATION} \textbf{VEGETATION} - \textbf{Use scientific names of plants}.$

	Absolute	Dominant	Indicator			
ree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
-				Number of Dominant Species		
				That Are OBL, FACW, or FAC:4 (A)		
20 20 20 20 20 20 20 20 20 20 20 20 20 2				Total Number of Dominant		
				Species Across All Strata: 4 (B)		
				Descrit of Descinant Species		
				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B		
				Prevalence Index worksheet:		
		=Total Cover		Total % Cover of: Multiply by:		
apling/Shrub Stratum (Plot size: 15)				OBL species 10 x 1 = 10		
Rhamnus cathartica	60	Yes	FAC	FACW species 45 x 2 = 90		
				FAC species 80 x 3 = 240		
				FACU species 17 x 4 = 68		
				UPL species 0 x 5 = 0		
		: 1 <u></u>		Column Totals: 152 (A) 408 (E		
	-	· · · · · · · · · · · · · · · · · · ·		Prevalence Index = B/A = 2.68		
	-	()		Hydrophytic Vegetation Indicators:		
	60	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation		
erb Stratum (Plot size: 5)		- Total Cover		X 2 - Dominance Test is >50%		
	20	Vaa	EAC\\\	× 3 - Prevalence Index is ≤3.01		
Eleocharis tenuis		Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting		
Euthamia graminifolia		Yes	FAC	data in Remarks or on a separate sheet)		
Fraxinus pennsylvanica	15	Yes	FACW			
Agrostis gigantea	10	No No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)		
Carex vulpinoidea	10	No	OBL_	¹ Indicators of hydric soil and wetland hydrology must		
Galium mollugo	10	No No	FACU	be present, unless disturbed or problematic.		
Lotus corniculatus	5	No	FACU_	Definitions of Vegetation Strata:		
Juniperus virginiana	2	No	FACU_	Tree - Woody plants 3 in. (7.6 cm) or more in		
				diameter at breast height (DBH), regardless of height		
D				Sapling/shrub - Woody plants less than 3 in. DBH		
1				and greater than or equal to 3.28 ft (1 m) tall.		
2				Herb – All herbaceous (non-woody) plants, regardles		
	92	=Total Cover		of size, and woody plants less than 3.28 ft tall.		
Voody Vine Stratum (Plot size:30)				Woody vines – All woody vines greater than 3.28 ft		
<u> </u>				height.		
				Hydrophytic Vegetation		
				Present? Yes X No		
		=Total Cover		S - 3' B - 5'		

SOIL Sampling Point CCE-SB-41

		o the de		iment th x Feature		ator or co	confirm the absence of indicators.)		
Depth (inches)	Color (moist)	%	Color (moist)	% reatur	Type ¹	Loc ²	Texture Remarks		
0 - 3	10YR 4/1	100	Color (moist)		Туре	LOC	Loamy/Clayey	-	
				—			\$2 \delta \tag{c}	-	
3 - 8	10YR 4/2	95	10YR 5/6	5	<u> </u>	<u>M</u>	Loamy/Clayey	_	
8 - 18	10YR 4/3	85	10YR 5/6	_15_	<u> </u>	<u>M</u>	Loamy/Clayey Shale present	_	
	1. N.					a . :		_	
	-	—						-	
	P <u> </u>	S——				·——		-	
								_	
172 3	1,5		10	-				_	
		—		—		51 <u></u> 1		-	
	1		-						
	1							_	
¹Type: C=Co	ncentration, D=Deple	etion, RN	=Reduced Matrix. N	MS=Mas	ked San	d Grains	s. ² Location: PL=Pore Lining, M=Matrix.	_	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators:					Indicators for Problematic Hydric Soils ³ :				
Histosol (Dark Surface (S7)				2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Histic Epipedon (A2)			Polyvalue Below Surface (S8) (LRR R,				Coast Prairie Redox (A16) (LRR K, L, R)		
Black Histic (A3)			MLRA 149B)				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)	Thin Dark Surface (S9) (LRR R, MLRA 1							
Stratified Layers (A5)			High Chroma Sands (S11) (LRR K, L)				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R	, I	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)			Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2)				Piedmont Floodplain Soils (F19) (MLRA 149	3	
Mesic Spodic (A17)			X Depleted Matrix (F3)				Red Parent Material (F21) (outside MLRA 1	-2855	
(MLRA 144A, 145, 149B)			Redox Dark Surface (F6)				Very Shallow Dark Surface (F22)		
Sandy Mucky Mineral (S1)			Depleted Dark Surface (F7)				Other (Explain in Remarks)		
Sandy Gleyed Matrix (S4)			Redox Depressions (F8)				•		
Sandy Redox (S5)			Marl (F10) (LRR K, L) Red Parent Material (F21) (MLRA 145)						
Stripped	Matrix (S6)		Red Parent Ma	terial (F	21) (MLI	RA 145)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive I	ayer (if observed):						unless disturbed of problematic.	_	
Type:	ayor (ii ozoorrou).								
Depth (in	ches):						Hydric Soil Present? Yes X No		
Remarks:	V. 1								



ATTACHMENT 2
WETLAND PHOTOGRAPH LOG

118Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

1

6/4/2025

Description

CCE-SB-01



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

6/4/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

3

6/4/2025

Description

CCE-SB-03



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

6/5/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

6/5/2025

Description

CCE-SB-05



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

6/5/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

6/5/2025

Description

CCE-SB-07



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

6/5/2025

Description



Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

Date:

6/5/2025

Description

CCE-SB-09



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

10

6/5/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

11

6/5/2025

Description

CCE-SB-11



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

12

6/5/2025

Description





Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

13

6/6/2025

Description

CCE-SB-13



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

14

6/6/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

15

6/6/2025

Date:

Description

CCE-SB-15



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

16

6/9/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

17

6/9/2025

Date:

Description

CCE-SB-17



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

18

6/9/2025

Date:

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

19

6/9/2025

Date:

Description

CCE-SB-19



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

20

6/9/2025

Description



Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

Date:

21

6/11/2025

Description

CCE-SB-21



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

22

6/11/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

23

6/11/2025

Description

CCE-SB-23



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

24

6/11/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

25 6/11/2025

Description

CCE-SB-25



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

26

6/11/2025

Description





Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

27

Date:

6/13/2025

Description

CCE-SB-27



Client Name:

Site Location:

Cayuga Concept Engineering

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

28

6/13/2025

Description





Site Location: Client Name:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

Cayuga Concept Engineering

29

6/13/2025

Description

CCE-SB-29



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

30

6/13/2025

Description





Site Location: Project No. **Client Name:** Cayuga Concept Engineering Tompkins County, Lansing, NY 1940113922-001

Photo No. Date: 31 6/13/2025

Description

CCE-SB-33



Client Name: Site Location:

Tompkins County, Lansing, NY

1940113922-001

Project No.

Photo No. Date: 32 6/13/2025

Cayuga Concept Engineering

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

33

6/13/2025

Date:

Description

CCE-SB-40



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

34

6/13/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

35

6/4/2025

Description

CCE-PS1



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

36

6/4/2024

Date:

Description

CCE-IS1



Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

Date:

37

6/4/2025

Description

CCE-IS2



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

38

6/4/2025

Description



Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

Date:

39

6/4/2025

Description

CCE-EP1a



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

40

6/4/2024

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

41

6/4/2025

Description

CCE-EP3



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

42

9/12/2024

Description



Client Name:

Site Location:

Project No.

Cayuga Concept Engineering

Tompkins County, Lansing, NY

1940113922-001

Photo No.

Date:

43

6/6/2025

Description

CCE-EP6



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

44

6/6/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

45

6/6/2025

Description

CCE-EP8



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

46

6/6/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

47

6/6/2025

Description

CCE-EP11



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

48

6/9/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

49

6/9/2025

Description

CCE-EP13



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

50

6/9/2025

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

6/9/2025

Description

CCE-EP16

51



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

52

9/13/2024

Description



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

53

6/9/2025

Date:

Description

CCE-EP18



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

54

9/13/2024

Description

CCE-IS3



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

55

6/5/2025

Description

Ditch 1



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

56

6/5/2024

Description

Ditch 2



Client Name:

Site Location:

Cayuga Concept Engineering

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

57

6/13/2025

Description

Ditch 6



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

58

6/13/2025

Description

Ditch 7



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No.

Date:

59

6/13/2025

Description

Ditch 9



Client Name:

Cayuga Concept Engineering

Site Location:

Tompkins County, Lansing, NY

Project No.

1940113922-001

Photo No. Date:

60

6/13/2025

Description

Ditch 10





ATTACHMENT 3
SOIL MAP



Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Tompkins County, New York

Cayuga Concept Engineering Wetland Delineation



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	
Soil Map	9
Legend	10
Map Unit Legend	11
Map Unit Descriptions	
Tompkins County, New York	13
HsB—Hudson silty clay loam, 2 to 6 percent slopes	13
HuB—Hudson-Cayuga silt loams, 2 to 6 percent slopes	14
HuC3—Hudson-Cayuga silt loams, 6 to 12 percent slopes, eroded	16
HuD—Hudson-Cayuga silt loams, 12 to 20 percent slopes	18
LmB—Lima silt loam, 3 to 8 percent slopes	20
Mc—Made land	22
OaA—Ovid silt loam, 0 to 6 percent slopes	23
RkB—Rhinebeck silt loam, 2 to 6 percent slopes	24
Ro—Rock outcrop	26
W—Water	26
References	27

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

-

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

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Blowout

 \boxtimes

Borrow Pit

Ж

Clay Spot

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Closed Depression

~

Gravel Pit

۰

Gravelly Spot

0

Landfill Lava Flow

٨.

Marsh or swamp

@

Mine or Quarry

0

Miscellaneous Water
Perennial Water

0

Rock Outcrop

4

Saline Spot

. .

Sandy Spot

0

Severely Eroded Spot

Λ

Sinkhole

30

Sodic Spot

Slide or Slip

8

Spoil Area

٥

Stony Spot

00

Very Stony Spot

♡

Wet Spot Other

...

Special Line Features

Water Features

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Streams and Canals

Transportation

ransp

Rails

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Interstate Highways

US Routes

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Major Roads

~

Local Roads

Background

Marie Control

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tompkins County, New York Survey Area Data: Version 20, Aug 29, 2024

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Apr 1, 2020—Oct 1, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HsB	Hudson silty clay loam, 2 to 6 percent slopes	32.8	16.9%
HuB	Hudson-Cayuga silt loams, 2 to 6 percent slopes	51.1	26.3%
HuC3	Hudson-Cayuga silt loams, 6 to 12 percent slopes, eroded	40.4	20.8%
HuD	Hudson-Cayuga silt loams, 12 to 20 percent slopes	5.0	2.6%
LmB	Lima silt loam, 3 to 8 percent slopes	2.0	1.1%
Мс	Made land	5.5	2.9%
OaA	Ovid silt loam, 0 to 6 percent slopes	37.4	19.2%
RkB	Rhinebeck silt loam, 2 to 6 percent slopes	10.3	5.3%
Ro	Rock outcrop	9.4	4.8%
W	Water	0.2	0.1%
Totals for Area of Interest		194.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the

scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Tompkins County, New York

HsB—Hudson silty clay loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9xm6 Elevation: 300 to 1,800 feet

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hudson and similar soils: 80 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hudson

Setting

Landform: Lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: silty clay loam H2 - 12 to 36 inches: silty clay loam H3 - 36 to 60 inches: silt loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Minor Components

Cayuga

Percent of map unit: 5 percent

Hydric soil rating: No

Collamer

Percent of map unit: 5 percent

Hydric soil rating: No

Rhinebeck

Percent of map unit: 5 percent

Hydric soil rating: No

Niagara

Percent of map unit: 5 percent

Hydric soil rating: No

HuB—Hudson-Cayuga silt loams, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9xm9 Elevation: 300 to 2,460 feet

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hudson and similar soils: 50 percent Cayuga and similar soils: 30 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hudson

Setting

Landform: Lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: silt loam
H2 - 12 to 36 inches: silty clay loam
H3 - 36 to 60 inches: silt loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Description of Cayuga

Setting

Landform: Till plains, lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest, tread

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey glaciolacustrine deposits over loamy till derived from

limestone, dolomite, sandstone, or shale

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 30 inches: silty clay
H3 - 30 to 60 inches: gravelly loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 13 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hvdrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Minor Components

Ovid

Percent of map unit: 5 percent

Hydric soil rating: No

Rhinebeck

Percent of map unit: 5 percent

Hydric soil rating: No

Collamer

Percent of map unit: 5 percent

Hydric soil rating: No

Niagara

Percent of map unit: 5 percent

Hydric soil rating: No

HuC3—Hudson-Cayuga silt loams, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 9xmc Elevation: 300 to 2,460 feet

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Hudson and similar soils: 50 percent Cayuga and similar soils: 30 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hudson

Setting

Landform: Lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: silt loam H2 - 12 to 36 inches: silty clay loam H3 - 36 to 60 inches: silt loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Description of Cayuga

Setting

Landform: Till plains, lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest, tread

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey glaciolacustrine deposits over loamy till derived from

limestone, dolomite, sandstone, or shale

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 30 inches: silty clay
H3 - 30 to 60 inches: gravelly loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 13 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Minor Components

Rhinebeck

Percent of map unit: 5 percent

Hydric soil rating: No

Kendaia

Percent of map unit: 5 percent

Hydric soil rating: No

Collamer

Percent of map unit: 5 percent

Hydric soil rating: No

Ovid

Percent of map unit: 5 percent

Hydric soil rating: No

HuD—Hudson-Cayuga silt loams, 12 to 20 percent slopes

Map Unit Setting

National map unit symbol: 9xmd Elevation: 300 to 2,460 feet

Mean annual precipitation: 32 to 42 inches
Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Hudson and similar soils: 50 percent Cayuga and similar soils: 30 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hudson

Settina

Landform: Lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Riser

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: silt loam
H2 - 12 to 36 inches: silty clay loam
H3 - 36 to 60 inches: silt loam

Properties and qualities

Slope: 12 to 20 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Description of Cayuga

Setting

Landform: Till plains, lake plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Side slope, riser

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Clayey glaciolacustrine deposits over loamy till derived from

limestone, dolomite, sandstone, or shale

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 30 inches: silty clay
H3 - 30 to 60 inches: gravelly loam

Properties and qualities

Slope: 12 to 20 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr) Depth to water table: About 13 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Minor Components

Ovid

Percent of map unit: 5 percent

Hydric soil rating: No

Rhinebeck

Percent of map unit: 5 percent

Hydric soil rating: No

Lansing

Percent of map unit: 5 percent

Hydric soil rating: No

Collamer

Percent of map unit: 5 percent

Hydric soil rating: No

LmB—Lima silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w3kk Elevation: 380 to 1,680 feet

Mean annual precipitation: 31 to 57 inches Mean annual air temperature: 41 to 50 degrees F

Frost-free period: 100 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Lima and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lima

Setting

Landform: Till plains, ridges, drumlins

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Linear Across-slope shape: Convex

Parent material: Calcareous loamy lodgment till derived from limestone,

sandstone, and shale

Typical profile

Ap - 0 to 9 inches: silt loam Bt/E - 9 to 12 inches: loam Bt1 - 12 to 16 inches: loam

Bt2 - 16 to 25 inches: gravelly loam C - 25 to 79 inches: gravelly loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 1.42 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B/D

Ecological site: F101XY013NY - Moist Till

Hydric soil rating: No

Minor Components

Honeoye

Percent of map unit: 6 percent

Landform: Ridges, till plains, drumlins

Landform position (two-dimensional): Summit, backslope, shoulder

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear, convex Across-slope shape: Convex

Hydric soil rating: No

Appleton

Percent of map unit: 3 percent

Landform: Ridges, drumlins, till plains

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Kendaia

Percent of map unit: 3 percent

Landform: Ridges, till plains, drumlins

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Cazenovia

Percent of map unit: 2 percent Landform: Reworked lake plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest

Down-slope shape: Concave Across-slope shape: Convex Hydric soil rating: No

Lyons

Percent of map unit: 1 percent

Landform: Drainageways, depressions

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

Mc—Made land

Map Unit Setting

National map unit symbol: 9xnd Elevation: 160 to 1,970 feet

Mean annual precipitation: 32 to 42 inches
Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 70 percent

Minor components: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Typical profile

H1 - 0 to 4 inches: channery loam

H2 - 4 to 70 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.06 to 5.95 in/hr)

Depth to water table: About 36 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B Hydric soil rating: No

Minor Components

Phelps

Percent of map unit: 5 percent Hydric soil rating: No

Lamson

Percent of map unit: 5 percent Landform: Depressions Hydric soil rating: Yes

Alden

Percent of map unit: 5 percent Landform: Depressions Hydric soil rating: Yes

Bath

Percent of map unit: 5 percent

Hydric soil rating: No

Erie

Percent of map unit: 5 percent Hydric soil rating: No

Conesus

Percent of map unit: 5 percent

Hydric soil rating: No

OaA—Ovid silt loam, 0 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9xnm Elevation: 250 to 1,000 feet

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Ovid and similar soils: 75 percent Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ovid

Setting

Landform: Till plains, reworked lake plains Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Loamy till with a significant component of reddish shale or reddish

glaciolacustrine clays, mixed with limestone and some sandstone

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 24 inches: silty clay loam
H3 - 24 to 60 inches: gravelly loam

Properties and qualities

Slope: 0 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: F101XY013NY - Moist Till

Hydric soil rating: No

Minor Components

Rhinebeck

Percent of map unit: 5 percent

Hydric soil rating: No

Cayuga

Percent of map unit: 5 percent

Hydric soil rating: No

Lyons

Percent of map unit: 5 percent

Landform: Depressions Hydric soil rating: Yes

llion

Percent of map unit: 5 percent

Landform: Depressions Hydric soil rating: Yes

Kendaia

Percent of map unit: 5 percent

Hydric soil rating: No

RkB—Rhinebeck silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9xp1 Elevation: 80 to 1.000 feet

Mean annual precipitation: 32 to 42 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Rhinebeck and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rhinebeck

Setting

Landform: Lake plains

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: silt loam
H2 - 12 to 23 inches: silty clay loam
H3 - 23 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: F101XY009NY - Moist Lake Plain

Hydric soil rating: No

Minor Components

Madalin

Percent of map unit: 5 percent Landform: Depressions Hydric soil rating: Yes

Ovid

Percent of map unit: 5 percent

Hydric soil rating: No

Canandaigua

Percent of map unit: 5 percent Landform: Depressions Hydric soil rating: Yes

Niagara

Percent of map unit: 5 percent Hydric soil rating: No

Hudson

Percent of map unit: 5 percent

Hydric soil rating: No

Ro—Rock outcrop

Map Unit Setting

National map unit symbol: 9xp3

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Properties and qualities

Slope: 0 to 25 percent

Depth to restrictive feature: 0 to 10 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

W-Water

Map Unit Setting

National map unit symbol: 1nc3d

Mean annual precipitation: 32 to 42 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 120 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

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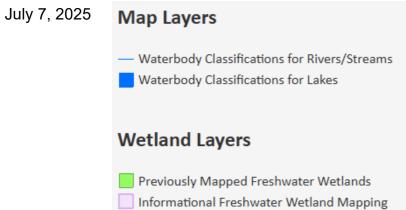
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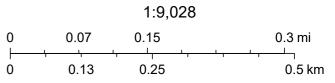


ATTACHMENT 4
NEW YORK STATE AND NATIONAL WETLAND INVENTORY MAPPING

Cayuga Concept Engineering Wetland Delineation







EagleView, New York State, Maxar, County of Tompkins, Esri, HERE, Garmin, iPC

Cayuga Concept Engineering Wetland Deli



July 7, 2025

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Other

Riverine

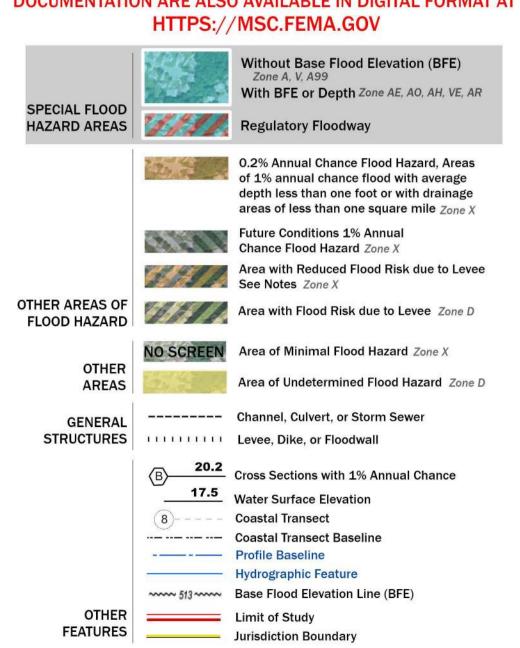
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



ATTACHMENT 5
FLOODPLAIN MAP

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT



NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available effective flood hazard information for your community, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be downloaded from the website. Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be acquired directly from the Flood Map Service Center at the website listed above.

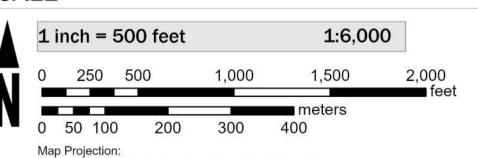
For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

Note: Some Special Flood Hazard Areas with elevations may not appear with elevation labels if the Base Flood Elevation or Cross-section line which communicates the elevation for the location appears on the adjacent panel. Please see the Panel Locator Diagram on this map panel to determine the adjacent panel and find the elevation feature there, or alternatively use the Flood Insurance Study report for detailed elevations by flood source.

SCALE



NAD 1983 StatePlane New York Central FIPS 3102 Feet Vertical Datum: NAVD88

PANEL LOCATOR



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

TOMPKINS COUNTY NEW YORK ALL JURISDICTIONS



Panel Contains:

COMMUNITY TOWN OF LANSING

National Flood Insurance Program

FEMA

NUMBER PANEL SUFFIX 360852 0057 D

> MAP NUMBER 36109C0057D EFFECTIVE DATE June 18, 2025

Section 5 Stormwater Pollution Prevention Plan (SWPPP)



SWPPP Narrative memo

Project name Beowulf

Project no.

Client LeChase
Memo no. 01
Version 0

To Matthew Wood, CAC (LeChase)

From Andrew Stering

Copy to

Prepared by A. Stering
Checked by B. Whittaker
Approved by B. Whittaker

Date September 08, 2025

1 New York State Stormwater Design Requirements

New York State Department of Environmental Conservation (NYSDEC) updated their Stormwater Management Design Manual (SWDM) July 31, 2024. Chapter 4 of the manual discusses the unified stormwater sizing criteria within the state, which presents requirements for water quantity control. Channel Protection Volume (CPv), Overbank Flood (Qp), and Extreme Flood (Qf) are waived since Cayuga Lake – a sixth order water body – is the discharge point for this system. The stormwater management requirements for the site will be limited to water quality control. This will be accomplished by providing Runoff Reduction Volume (RRv) equal to the Water Quality Volume (WQv) or to provide RRv above the minimum calculated RRv and provide treatment of the remaining WQv. NYSDEC prefers the first approach and it is achievable with our concept. The minimum RRv was not calculated because we will provide RRv more than the WQv through the techniques described in the next sections. The equation for calculating WQv is as follows:

$$WQv (acre - feet) = \frac{P (in) * Rv * A (acres)}{12}$$

$$WQv (acre - feet) = \frac{1 in * [0.05 + 0.009 * (\% impervious)] * A (acres)}{12}$$

Ramboll's stormwater management concepts utilize NYSDEC approved practices throughout the site to provide a de-centralized approach to stormwater management. The following sections will discuss approaches to manage stormwater originating from the buildings, the parking areas, and the roads.

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2 Management of stormwater from building roof runoff

Some of the largest contributors to the impervious area increase on the site are the roof areas of the data centers themselves. Each of the data center buildings are in excess of 165,000 square feet, all of which is considered impervious. Stormwater runoff from the roofs will be managed as close to the source as possible, and the roof will be split up into approximately 12 zones with gutters and downspouts. Each of the zones will be less than 15,000 square feet as directed by the SWDM. The gutters for these will be directly connected to a stormwater planter with no underdrain (NYSDEC SWDM practice RR-7). There is adequate space to provide 6 of the planters along the length of both sides of the data center buildings which will provide adequate RRv for the portion of impervious area contributed by the rooftops. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site. See appendix A for the NYSDEC SWDM factsheet for stormwater planters.

3 Management of stormwater from parking area runoff

Each of the data centers have been designed to include both a parking lot area and a loading dock area where asphalt paving extends directly up to the proposed building wall. While relatively small in comparison to the overall increase in impervious area, these areas will also be treated as close to the source as possible. There are approximately 25,000 square feet of impervious parking lot asphalt per data center. The surface runoff of these features will first run through grass pre-treatment, and then into one of two infiltration bioretention (NYSDEC SWDM practice F-4) areas that will be provided adjacent to these areas. This practice provides 100% RRv credit and the filter area will be sized to adequately treat the WQv resulting from the contributing parking areas. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site. See appendix B for the NYSDEC SWDM factsheet for infiltration bioretention areas.

4 Management of stormwater from site roads

There are two types of roads proposed on the site. One is for general site circulation that provides access to Cayuga Drive and access to each of the data centers. The other provides vehicular access around each of the data center buildings. While both will be managed utilizing tree trenches (NYSDEC SWDM practice RR-3), the sizing and drainage area strategy differs between the two.

For the roads that circulate the entire site and provide site access from Cayuga Drive, the strategy will be to provide smaller periodic tree trenches that will accept flow from catch basins along the main roadway. A 320 square foot filter area will be provided for catch basins spaced every 300 feet and will have trees planted every 10-feet (on center) within the filter area. Pre treatment will be provided at each inlet location using gabion baskets at the inlet locations as shown on page 5-40 of the stormwater design manual. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site.

For the roads that surround the data centers, tree trenches placed longitudinally along the path would not be feasible due to site geometry, particularly for the data center in the middle. Instead of periodic tree trenches, a large tree trench will be provided at the downslope end of each data center. Stormwater will be collected through a traditional stormwater system discharging to a large tree trench running NW to SE along the SW side of the road surrounding the data centers. These trenches will be



sized to provide adequate filter bed area to provide enough RRv for the entirety of the road surrounding each data center and trees will be planted every 10' on center. Overflow from these trenches will be directed towards the rest of the stormwater system on site.

See appendix C for the NYSDEC SWDM factsheet for tree planting/tree pit/tree trench and appendix D for page 5-40 of the manual which includes the standard detail for the practice.

5 Infiltration rates

The above approach is pending infiltration rate testing at the stormwater management practice locations. 100% RRv credit for stormwater planters, tree trenches, and bioretention is predicated on an infiltration rate of greater than 0.5 inches per hour.

Should infiltration testing occur and show that the infiltration rates are less than 0.5 inches per hour, additional practices will be added to provide treatment for the difference between the WQv and the provided RRv.



APPENDIX A
NYSDEC STORMWATER DESIGN MANUAL
STORMWATER PLANTER (RR-7) FACT SHEET

Fact Sheet: Stormwater Planters (RR-7)



Description: Passive filtration system to manage and treat small to moderate volumes of stormwater runoff from adjacent impervious surfaces. The system consists of an inflow component, a shallow ponding area over a planted soil bed, mulch layer, stone drainage layer, plantings and an overflow mechanism to convey larger rain events to the storm drain system.

Key Considerations

FEASIBILITY

- Stormwater planters shall be designed and constructed with no longitudinal or lateral slope
- Maximum contributing area shall be 15,000 sf per stormwater planter
- Parking lot or roadway runoff shall not be directed to stormwater planters
- Infiltration stormwater planters shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr
- Filtration stormwater planters shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr, unless underdrains are provided

CONVEYANCE

- Runoff must enter at the surface of the soil media
- Runoff shall be directed to stormwater planters at a non-erosive rate through shallow swales, drainpipe, or short distances of sheet flow
- Underdrain systems shall be designed to create an internal water storage
- Outlet(s) shall be designed to ensure non-erosive outlet conditions
- An emergency spillway or overflow device shall be provided to safely convey stormwater exceeding the Extreme Flood

TREATMENT

- Maximum ponding depth shall be 12 inches during the WQv event and 18 inches during the Extreme Flood event
- Stormwater planters shall have a 18 inch minimum and 30 inch maximum filter media depth
- Infiltration stormwater planters shall have a 6 inch minimum stone drainage layer
- Filtration stormwater planters shall have a 10 inch minimum stone drainage layer
- Underdrains are required for filtration stormwater planters

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- ✓ Linear Applications
- ✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- Capital Cost
- Maintenance Burden
- Safety
- H Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.4)

- G Phosphorus
- Nitrogen
- NA Metals
- NA Pathogens
- Total Suspended Solids

G = Good **F** = Fair **P** = Poor **₽** = Fair/Good *NA = Not enough data available, more research needed

RUNOFF REDUCTION CREDIT

 100% RRv provided without underdrains 40% RRv provided with underdrains



APPENDIX B
NYSDEC STORMWATER DESIGN MANUAL
INFILTRATION BIORETENTION (F-4) FACT SHEET

Fact Sheet: Infiltration Bioretention (F-4)



Description: Shallow stormwater controls that utilize vegetation and engineered filter media to capture, treat, and infiltrate stormwater runoff into the underlying soils.

Key Considerations

PERFORMANCE CRITERIA

FEASIBILITY

- Underlying soils shall have an min. infiltration rate of 0.50 inch/hr
- Design and construct level, with no longitudinal or lateral slope
- Max contributing area is 5 acres
- Min 2 ft separation to seasonal high-water table or bedrock
- Two treatment practices in series both sized to treat the entire WQv (noninfiltration standard SMP followed by an infiltration practice) shall be provided for hotspot treatment

CONVEYANCE

- Runoff conveyed by pipe or concentrated flow shall utilize a pretreatment device or flow dissipator to reduce flow velocity prior to entering the filter media
- If flow velocity cannot be reduced to non-erosive conditions, the practice shall be designed off-line
- Outlet(s) shall be designed to ensure non-erosive outlet conditions
- An emergency spillway or overflow chamber with outlet pipe to safely convey stormwater exceeding the Extreme Flood shall be included

PRETREATMENT

Pretreatment shall provide min 25% WQv

TREATMENT

- Practice shall be sized (including pretreatment) to temporarily hold the WQv prior to filtration
- Max ponding is 12 inches (WQv) and 18 inches (Extreme Flood)
- Depth of filter media shall be 30 inches min and 48 inches max
- Depth of drainage layer shall be 6 inches
- Min 12 ft wide maintenance access shall be provided 15% max slope

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- Linear Applications
- ✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- M Capital Cost
- Maintenance Burden
- M Safety Risk
- H Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.3)

- G Phosphorus
- G Nitrogen
- G Metals
- G Pathogens
- Total Suspended Solids
- G = Good F = Fair P = Poor

RUNOFF REDUCTION CREDIT

100% RRv provided



APPENDIX C
NYSDEC STORMWATER DESIGN MANUAL
TREE PLANTING/TREE PIT/TREE TRENCH (RR-3) FACT SHEET

Fact Sheet: Tree Planting/Tree Pit/Tree Trench (RR-3)



Description: Tree planting is an area reduction practice using existing or newly planted trees. Tree pits are a volume reduction practice using trees planted in contained areas.

Key Considerations

FEASIBILITY

- Tree plantings are not applicable if credit for another area reduction practice is already being taken for the same area
- Trees shall be non-invasive and not be disturbed during construction
- Tree pits shall have underlying soils with an infiltrate greater than or equal to 0.50 inch/hr, unless underdrains are provided
- Tree trenches shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr
- Tree trenches and tree pits shall have a 2 ft min. separation to the seasonal high water table and bedrock
- Overhead clearance shall be taken into consideration when selecting tree species

CONVEYANCE

- Tree pit underdrain systems shall be designed to create an internal water storage
- Tree trenches shall be equipped with a subsurface infiltration reservoir
- Stormwater runoff shall be intercepted near the source and conveyed to the practice as sheet flow

TREATMENT

- The maximum slope of the contributing area is 10%
- The maximum horizontal separation from the contributing impervious area is 10 ft (new trees) or within 20 ft of the canopy (existing trees)
- Drainage filter fabric shall separate and wrap the soil media and stone drainage layer of tree trenches
- For area reduction subtract the total area contributing by sheet flow to an
 existing or new tree from the total area when computing WQv
- For volume reduction, systems should ensure that the peak water surface elevation for the 10-year, 24-hr design storm does not overtop the system

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- Linear Applications
- ✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- Capital Cost
- Maintenance Burden
- Safety Risk
- Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.4)

- G Phosphorus
- Nitrogen
- G Metals
- G Pathogens
- G Total Suspended Solids

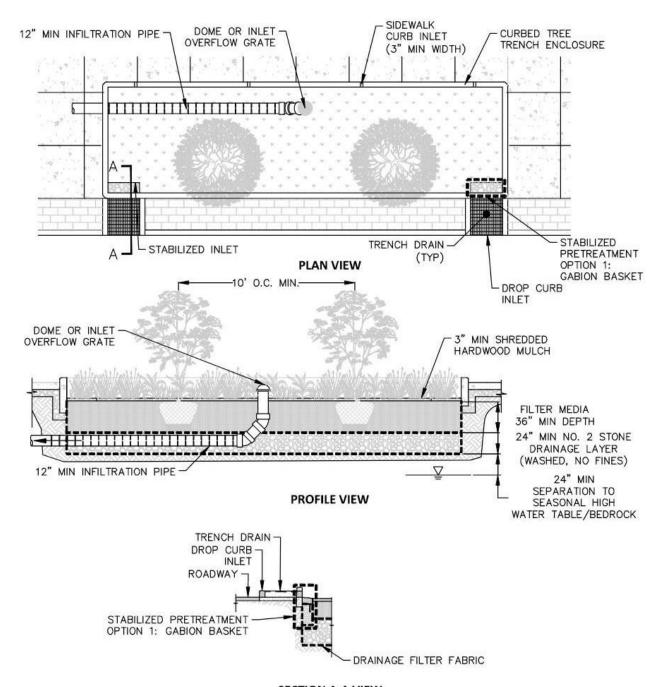
G = Good F = Fair P = Poor

RUNOFF REDUCTION CREDIT

- 100% area reduction towards RRv (plantings)
- 100% RRv provided (trenches and pits)
- 40% RRv provided (tree pits with underdrains)



APPENDIX D
NYSDEC STORMWATER DESIGN MANUAL
TREE TRENCH STANDARD DETAIL WITH GABION BASKET PRETREATMENT



SECTION A-A VIEW
Figure 5.38 Tree Trench Surface Flow (RR-3)



SWPPP Narrative memo

Project name Beowulf

Project no.

Client LeChase
Memo no. 01
Version 0

To Matthew Wood, CAC (LeChase)

From Andrew Stering

Copy to

Prepared by A. Stering
Checked by B. Whittaker
Approved by B. Whittaker

Date September 08, 2025

1 New York State Stormwater Design Requirements

New York State Department of Environmental Conservation (NYSDEC) updated their Stormwater Management Design Manual (SWDM) July 31, 2024. Chapter 4 of the manual discusses the unified stormwater sizing criteria within the state, which presents requirements for water quantity control. Channel Protection Volume (CPv), Overbank Flood (Qp), and Extreme Flood (Qf) are waived since Cayuga Lake – a sixth order water body – is the discharge point for this system. The stormwater management requirements for the site will be limited to water quality control. This will be accomplished by providing Runoff Reduction Volume (RRv) equal to the Water Quality Volume (WQv) or to provide RRv above the minimum calculated RRv and provide treatment of the remaining WQv. NYSDEC prefers the first approach and it is achievable with our concept. The minimum RRv was not calculated because we will provide RRv more than the WQv through the techniques described in the next sections. The equation for calculating WQv is as follows:

$$WQv (acre - feet) = \frac{P (in) * Rv * A (acres)}{12}$$

$$WQv (acre - feet) = \frac{1 in * [0.05 + 0.009 * (\% impervious)] * A (acres)}{12}$$

Ramboll's stormwater management concepts utilize NYSDEC approved practices throughout the site to provide a de-centralized approach to stormwater management. The following sections will discuss approaches to manage stormwater originating from the buildings, the parking areas, and the roads.

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2 Management of stormwater from building roof runoff

Some of the largest contributors to the impervious area increase on the site are the roof areas of the data centers themselves. Each of the data center buildings are in excess of 165,000 square feet, all of which is considered impervious. Stormwater runoff from the roofs will be managed as close to the source as possible, and the roof will be split up into approximately 12 zones with gutters and downspouts. Each of the zones will be less than 15,000 square feet as directed by the SWDM. The gutters for these will be directly connected to a stormwater planter with no underdrain (NYSDEC SWDM practice RR-7). There is adequate space to provide 6 of the planters along the length of both sides of the data center buildings which will provide adequate RRv for the portion of impervious area contributed by the rooftops. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site. See appendix A for the NYSDEC SWDM factsheet for stormwater planters.

3 Management of stormwater from parking area runoff

Each of the data centers have been designed to include both a parking lot area and a loading dock area where asphalt paving extends directly up to the proposed building wall. While relatively small in comparison to the overall increase in impervious area, these areas will also be treated as close to the source as possible. There are approximately 25,000 square feet of impervious parking lot asphalt per data center. The surface runoff of these features will first run through grass pre-treatment, and then into one of two infiltration bioretention (NYSDEC SWDM practice F-4) areas that will be provided adjacent to these areas. This practice provides 100% RRv credit and the filter area will be sized to adequately treat the WQv resulting from the contributing parking areas. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site. See appendix B for the NYSDEC SWDM factsheet for infiltration bioretention areas.

4 Management of stormwater from site roads

There are two types of roads proposed on the site. One is for general site circulation that provides access to Cayuga Drive and access to each of the data centers. The other provides vehicular access around each of the data center buildings. While both will be managed utilizing tree trenches (NYSDEC SWDM practice RR-3), the sizing and drainage area strategy differs between the two.

For the roads that circulate the entire site and provide site access from Cayuga Drive, the strategy will be to provide smaller periodic tree trenches that will accept flow from catch basins along the main roadway. A 320 square foot filter area will be provided for catch basins spaced every 300 feet and will have trees planted every 10-feet (on center) within the filter area. Pre treatment will be provided at each inlet location using gabion baskets at the inlet locations as shown on page 5-40 of the stormwater design manual. Overflow will be directed to a network of stormwater pipes connecting these practices to the rest of the stormwater system on site.

For the roads that surround the data centers, tree trenches placed longitudinally along the path would not be feasible due to site geometry, particularly for the data center in the middle. Instead of periodic tree trenches, a large tree trench will be provided at the downslope end of each data center. Stormwater will be collected through a traditional stormwater system discharging to a large tree trench running NW to SE along the SW side of the road surrounding the data centers. These trenches will be



sized to provide adequate filter bed area to provide enough RRv for the entirety of the road surrounding each data center and trees will be planted every 10' on center. Overflow from these trenches will be directed towards the rest of the stormwater system on site.

See appendix C for the NYSDEC SWDM factsheet for tree planting/tree pit/tree trench and appendix D for page 5-40 of the manual which includes the standard detail for the practice.

5 Infiltration rates

The above approach is pending infiltration rate testing at the stormwater management practice locations. 100% RRv credit for stormwater planters, tree trenches, and bioretention is predicated on an infiltration rate of greater than 0.5 inches per hour.

Should infiltration testing occur and show that the infiltration rates are less than 0.5 inches per hour, additional practices will be added to provide treatment for the difference between the WQv and the provided RRv.



APPENDIX A
NYSDEC STORMWATER DESIGN MANUAL
STORMWATER PLANTER (RR-7) FACT SHEET

Fact Sheet: Stormwater Planters (RR-7)



Description: Passive filtration system to manage and treat small to moderate volumes of stormwater runoff from adjacent impervious surfaces. The system consists of an inflow component, a shallow ponding area over a planted soil bed, mulch layer, stone drainage layer, plantings and an overflow mechanism to convey larger rain events to the storm drain system.

Key Considerations

FEASIBILITY

- Stormwater planters shall be designed and constructed with no longitudinal or lateral slope
- Maximum contributing area shall be 15,000 sf per stormwater planter
- Parking lot or roadway runoff shall not be directed to stormwater planters
- Infiltration stormwater planters shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr
- Filtration stormwater planters shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr, unless underdrains are provided

CONVEYANCE

- Runoff must enter at the surface of the soil media
- Runoff shall be directed to stormwater planters at a non-erosive rate through shallow swales, drainpipe, or short distances of sheet flow
- Underdrain systems shall be designed to create an internal water storage
- Outlet(s) shall be designed to ensure non-erosive outlet conditions
- An emergency spillway or overflow device shall be provided to safely convey stormwater exceeding the Extreme Flood

TREATMENT

- Maximum ponding depth shall be 12 inches during the WQv event and 18 inches during the Extreme Flood event
- Stormwater planters shall have a 18 inch minimum and 30 inch maximum filter media depth
- Infiltration stormwater planters shall have a 6 inch minimum stone drainage layer
- Filtration stormwater planters shall have a 10 inch minimum stone drainage layer
- Underdrains are required for filtration stormwater planters

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- ✓ Linear Applications
- ✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- Capital Cost
- Maintenance Burden
- Safety
- H Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.4)

- G Phosphorus
- Nitrogen
- NA Metals
- NA Pathogens
- G Total Suspended Solids

G = Good **F** = Fair **P** = Poor **₽** = Fair/Good *NA = Not enough data available, more research needed

RUNOFF REDUCTION CREDIT

 100% RRv provided without underdrains 40% RRv provided with underdrains



APPENDIX B
NYSDEC STORMWATER DESIGN MANUAL
INFILTRATION BIORETENTION (F-4) FACT SHEET

Fact Sheet: Infiltration Bioretention (F-4)



Description: Shallow stormwater controls that utilize vegetation and engineered filter media to capture, treat, and infiltrate stormwater runoff into the underlying soils.

Key Considerations

PERFORMANCE CRITERIA

FEASIBILITY

- Underlying soils shall have an min. infiltration rate of 0.50 inch/hr
- Design and construct level, with no longitudinal or lateral slope
- Max contributing area is 5 acres
- Min 2 ft separation to seasonal high-water table or bedrock
- Two treatment practices in series both sized to treat the entire WQv (noninfiltration standard SMP followed by an infiltration practice) shall be provided for hotspot treatment

CONVEYANCE

- Runoff conveyed by pipe or concentrated flow shall utilize a pretreatment device or flow dissipator to reduce flow velocity prior to entering the filter media
- If flow velocity cannot be reduced to non-erosive conditions, the practice shall be designed off-line
- Outlet(s) shall be designed to ensure non-erosive outlet conditions
- An emergency spillway or overflow chamber with outlet pipe to safely convey stormwater exceeding the Extreme Flood shall be included

PRETREATMENT

Pretreatment shall provide min 25% WQv

TREATMENT

- Practice shall be sized (including pretreatment) to temporarily hold the WQv prior to filtration
- Max ponding is 12 inches (WQv) and 18 inches (Extreme Flood)
- Depth of filter media shall be 30 inches min and 48 inches max
- Depth of drainage layer shall be 6 inches
- Min 12 ft wide maintenance access shall be provided 15% max slope

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- Linear Applications

✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- M Capital Cost
- Maintenance Burden
- M Safety Risk
- H Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.3)

- G Phosphorus
- G Nitrogen
- G Metals
- G Pathogens
- Total Suspended Solids

G = Good **F** = Fair **P** = Poor

RUNOFF REDUCTION CREDIT

100% RRv provided



APPENDIX C
NYSDEC STORMWATER DESIGN MANUAL
TREE PLANTING/TREE PIT/TREE TRENCH (RR-3) FACT SHEET

Fact Sheet: Tree Planting/Tree Pit/Tree Trench (RR-3)



Description: Tree planting is an area reduction practice using existing or newly planted trees. Tree pits are a volume reduction practice using trees planted in contained areas.

Key Considerations

FEASIBILITY

- Tree plantings are not applicable if credit for another area reduction practice is already being taken for the same area
- Trees shall be non-invasive and not be disturbed during construction
- Tree pits shall have underlying soils with an infiltrate greater than or equal to 0.50 inch/hr, unless underdrains are provided
- Tree trenches shall have underlying soils with an infiltration rate greater than or equal to 0.50 inch/hr
- Tree trenches and tree pits shall have a 2 ft min. separation to the seasonal high water table and bedrock
- Overhead clearance shall be taken into consideration when selecting tree species

CONVEYANCE

- Tree pit underdrain systems shall be designed to create an internal water storage
- Tree trenches shall be equipped with a subsurface infiltration reservoir
- Stormwater runoff shall be intercepted near the source and conveyed to the practice as sheet flow

TREATMENT

- The maximum slope of the contributing area is 10%
- The maximum horizontal separation from the contributing impervious area is 10 ft (new trees) or within 20 ft of the canopy (existing trees)
- Drainage filter fabric shall separate and wrap the soil media and stone drainage layer of tree trenches
- For area reduction subtract the total area contributing by sheet flow to an
 existing or new tree from the total area when computing WQv
- For volume reduction, systems should ensure that the peak water surface elevation for the 10-year, 24-hr design storm does not overtop the system

STORMWATER MANAGEMENT SUITABILITY

- Water Quality
- Channel Protection
- Overbank Flood Protection
- Extreme Flood Protection
- Runoff Reduction
- Treatment of Hotspots
- Linear Applications
- ✓ suitable for this practice

IMPLEMENTATION CONSIDERATIONS

- Capital Cost
- Maintenance Burden
- Safety Risk
- Landscaping

L = Low **M** = Moderate **H** = High **NA** = Not Applicable

POLLUTANT REMOVAL (See Table 10.4)

- G Phosphorus
- Nitrogen
- G Metals
- G Pathogens
- G Total Suspended Solids

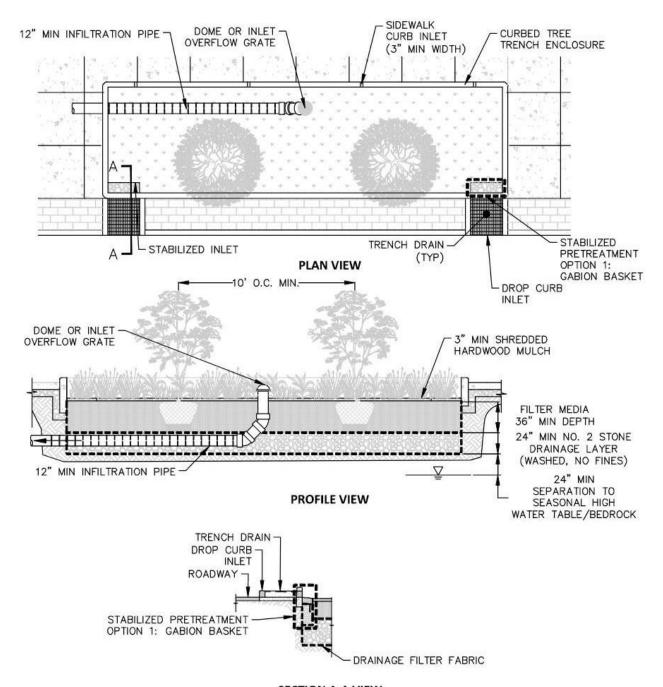
G = Good F = Fair P = Poor

RUNOFF REDUCTION CREDIT

- 100% area reduction towards RRv (plantings)
- 100% RRv provided (trenches and pits)
- 40% RRv provided (tree pits with underdrains)

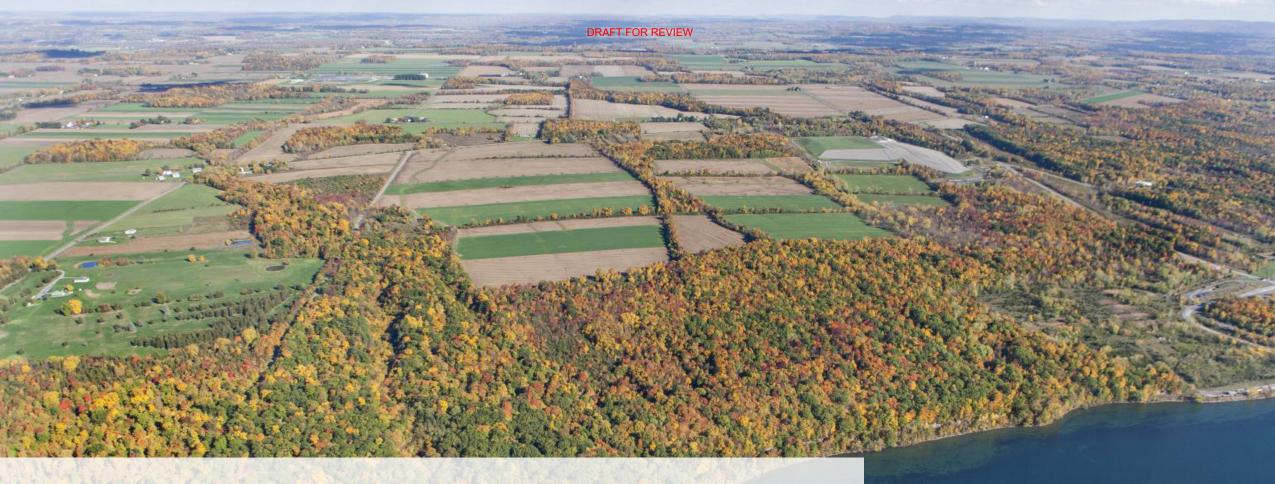


APPENDIX D
NYSDEC STORMWATER DESIGN MANUAL
TREE TRENCH STANDARD DETAIL WITH GABION BASKET PRETREATMENT



SECTION A-A VIEW
Figure 5.38 Tree Trench Surface Flow (RR-3)

Section 6 Planting Approach



Landscape Draft Design Approach

Our process for landscape design



Ramboll

Landscape Design Goals



Maintain site security and facility operations



• Plant with native species aligned with nearby local ecosystems



• Screen and buffer areas of facility for noise reduction and aesthetics



Align planting with stormwater management

Ramboll

Primary Landscape Design Tools



Stormwater management with tree trenches, bioretention planters and stormwater planters



Pollinator gardens



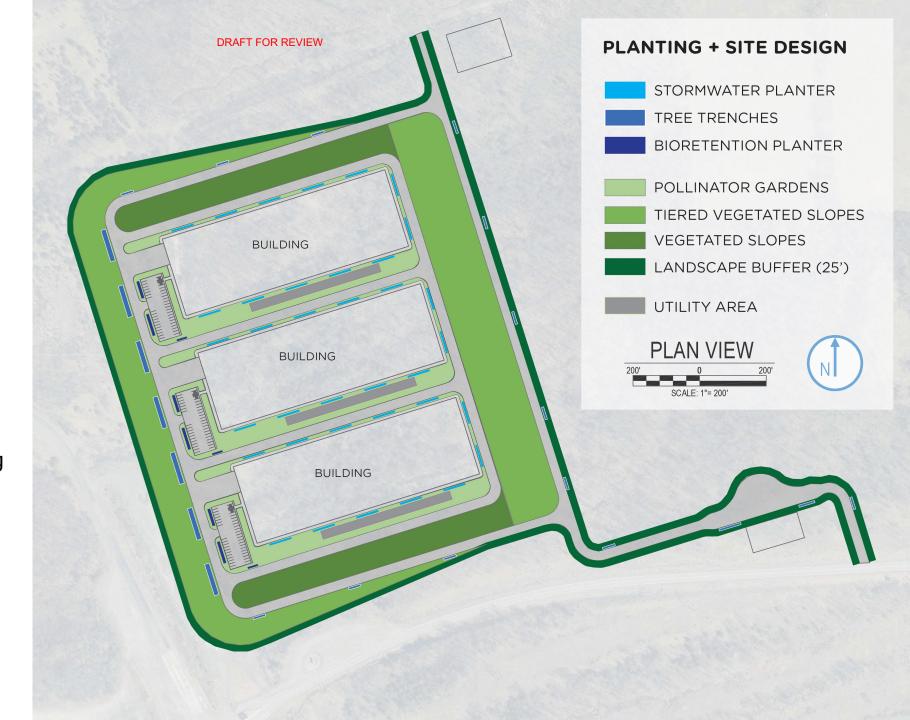
Tiered vegetated slopes



Landscape buffer for visual screening

Landscape Concept Planting Approach

- Incorporate tiered landscape slopes with evergreen and deciduous trees, shrubs and grasses for naturalized visual screening
- Use native species in tree trenches, bioretention and stormwater planting
- Create landscape buffer along roadway and edge of site for visual screening
- Add pollinator gardens within parking lots for added vegetated landscape



Sample Planting Palette

- NY native species based on nearby habitats
- Species tolerant to stormwater treatment conditions and other site conditions

DESIGN STRATEGY:

- Plant pollinator gardens throughout parking lots
- Screen the buildings with a landscape buffer consisting of species from a Maple-Basswood Rich Mesic Forest
- Use species from Hemlock-Northern Hardwood Forest for the tiered vegetated slope
- For stormwater management areas, use species from NY DEC Stormwater Manual and from nearby reference habitats

Stormwater Management Areas: Example Species

- American Hornbeam
- River Birch
- Blackhaw
- Black Chokeberry
- Soft Rush
- Swamp Milkweed
- Joe-pye-weed

Pollinator Garden: Example Species

- · Common Milkweed
- Black-eyed Susan
- Indian Grass
- Big Bluestem
- Little Bluestem
- Purple Coneflower
- Butterfly Weed

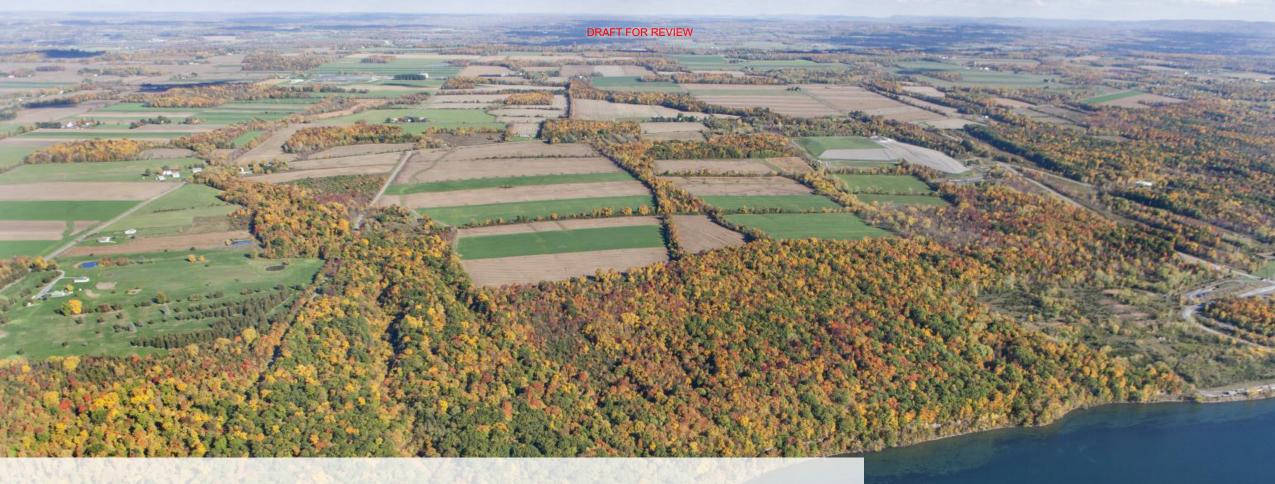
Landscape Buffer: Example Species

- American Basswood
- Mountain Maple
- Witch-hazel
- Pagoda Dogwood
- Spicebush
- Northern Lady Fern
- New England Aster
- False Sunflower

Tiered Slope Plantings:

Example Species

- Red Maple
- White Oak
- White Pine
- Eastern Hemlock
- Hillside Blueberry
- Black-eyed Susan
- Switchgrass



Landscape Draft Design Approach

Our process for landscape design



Ramboll

Landscape Design Goals



Maintain site security and facility operations



• Plant with native species aligned with nearby local ecosystems



• Screen and buffer areas of facility for noise reduction and aesthetics



Align planting with stormwater management

Ramboll

Primary Landscape Design Tools



Stormwater management with tree trenches, bioretention planters and stormwater planters



Pollinator gardens



Tiered vegetated slopes



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Tiered Slope Plantings:

Example Species

- Red Maple
- White Oak
- White Pine
- Eastern Hemlock
- Hillside Blueberry
- Black-eyed Susan
- Switchgrass

Section 7 Agricultural District Statement

PROJECT: 1940115639 | DATED: 9/8/2025 | DESIGNER: MOSHERSG Map Scale: 1:20,000 | Map Center: 76°37'22"W 42°36'28"N

AGRICULTURAL DISTRICTS

AGRICULTURAL DISTRICTS

FIGURE 01

KEY MAP

C:\Users\MOSHERSG\OneDrive - Rambol\\Documents 1\ArcG\S\Projects\Terrawolf\Terrawolf Lansinq.aprx

1,000 2,000 _ Feet Cayuga Operating Company, LLC. 228 Cayuga Drive Lansing, NY 14882

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC. A RAMBOLL COMPANY



Section 8 Environmental Assessment Form

Full Environmental Assessment Form Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project:			
Cayuga Data Campus (also referred to as Lake Hawkeye)			
Project Location (describe, and attach a general location map):			
228 Cayuga Drive, Lansing, NY 14882 (see attached site location map)			
Brief Description of Proposed Action (include purpose or need):			
The Cayuga Data Campus (the "Project") is a next-generation research and technolog Project modernizes an existing utility-scale industrial property into research-grade convesearch. This represents a natural evolution of the site's historic purpose: continuing The Project will be developed in a staged, modular sequence totaling approximately 1 consist of the construction of one 50-MW research building; subsequent phases will accord approximately 138 MW. This sequential development model mirrors the successful Barker, NY, allowing the Project to scale responsibly in alignment with site readiness, by the Applicants. Each building is anticipated to require approximately 12–14 months ensures continuity of local construction trades, minimizes site disturbance, and enable both grid capacity timing and community-facing coordination.	nputing infrastructure that directlits longstanding role as utility-sc 38 MW of research-grade compdd two additional 50-MW resear approach implemented at Teral final design approvals, and utilits from Notice to Proceed through	y supports scientific and institutional cale infrastructure serving public and i uting infrastructure. Phase I will ch buildings for a combined capacity Nulf's Lake Mariner campus in y interconnection upgrades funded a commissioning. Staged deployment	
Name of Applicant/Sponsor:	Telephone: (607) 252	Telephone: (607) 252-0722	
TeraWulf Inc. (Cayuga Data Campus)		E-Mail: fdelfavero@beowulfed.com	
Address: 228 Cayuga Drive	·		
City/PO: Lansing	State: NY	Zip Code: 14882	
Project Contact (if not same as sponsor; give name and title/role):	Telephone: (607) 227	Telephone: (607) 227-3892	
Adam Millspaugh, Construction Manager		E-Mail: amillspaugh@beowulfed.com	
Address:	<u>'</u>		
City/PO:	State:	Zip Code:	
Property Owner (if not same as sponsor):	Telephone:	Telephone:	
Cayuga Operating Company LLC	E-Mail:	•	
Address: 228 Cayuga Drive	1		
City/PO: Lansing	State: NY	Zip Code: 14882	

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)				
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)		
a. City Council, Town Board, ✓Yes□No or Village Board of Trustees	Town of Lansing Board	October 2025		
b. City, Town or Village ✓Yes□No Planning Board or Commission	Town of Lansing Planning Board	October 2025		
c. City, Town or □Yes☑No Village Zoning Board of Appeals				
d. Other local agencies ☐Yes ✓No				
e. County agencies ✓Yes□No	Tompkins County Planning Board	October 2025		
f. Regional agencies □Yes☑No				
g. State agencies ✓ Yes□No	NYSDEC, NYSDOT, SHPO			
h. Federal agencies ✓ Yes□No	USACE, USFWS			
 i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? iii. Is the project site within a Coastal Erosion Hazard Area? 			□Yes ✓No □Yes ✓No □Yes ✓No	
C. Planning and Zoning				
C.1. Planning and zoning actions.				
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the ☐Yes ☑No only approval(s) which must be granted to enable the proposed action to proceed? • If Yes, complete sections C, F and G. • If No, proceed to question C.2 and complete all remaining sections and questions in Part 1				
C.2. Adopted land use plans.				
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?			Z Yes□No Z Yes□No	
	y local or regional special planning district (for e gnated State or Federal heritage area; watershed		∠ Yes□No	
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? If Yes, identify the plan(s): Town of Lansing Open Space Conservation Plan, Town of Lansing Agriculture & Farmland Protection Plan				

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? The Project independently satisfies two separate permitted IR District classifications: (i) Warehouse, storage or wholesaling of nor materials and (ii) General processing, light manufacturing and assembly. Adjacent parcels are zoned Residential/Agricultural (RA	
b. Is the use permitted or allowed by a special or conditional use permit?	∠ Yes No
c. Is a zoning change requested as part of the proposed action? If Yes, i. What is the proposed new zoning for the site?	☐ Yes Z No
C.4. Existing community services.	
a. In what school district is the project site located? Lansing Central School District	
b. What police or other public protection forces serve the project site? Tompkins County Sheriff's Office and the New York State Police	
c. Which fire protection and emergency medical services serve the project site? Lansing Fire Department, Cayuga Medical Associates, and ambulance service by Bangs Ambulance.	_
d. What parks serve the project site? The <u>Cayuga Shores Wildlife Management Area is located approximately one mile north of the Project site, and Taughannock Falls approximately four miles to the southeast across Cayuga Lake. Additional nearby public recreational resources include Myers Par</u>	s State Park is located k and Salt Point.
D. Project Details	
D.1. Proposed and Potential Development	
 a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixe components)? Industrial with two permitted purposes: (1) warehousing, storage, and/or wholesaling of non-ag go digital information, and (2) general processing (light manufacturing equivalent)through the computation. 	oods in the form of
b. a. Total acreage of the site of the proposed action? ±183 acres b. Total acreage to be physically disturbed? ±43 acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ±434 acres	
c. Is the proposed action an expansion of an existing project or use? i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles square feet)? % Units:	☐ Yes No No s, housing units,
d. Is the proposed action a subdivision, or does it include a subdivision? If Yes, i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	□Yes Ø No
ii. Is a cluster/conservation layout proposed?iii. Number of lots proposed?iv. Minimum and maximum proposed lot sizes? Minimum Maximum	□Yes□No
e. Will the proposed action be constructed in multiple phases? i. If No, anticipated period of construction: ii. If Yes: Total number of phases anticipated Anticipated commencement date of phase 1 (including demolition) Anticipated completion date of final phase Generally describe connections or relationships among phases, including any contingencies where progred determine timing or duration of future phases:	☑ Yes□No ess of one phase may
Phase I will include site preparation, grading, utility extension, and construction of the northern research building. Phase II will consequently of the two remaining research buildings	sist of the sequential

	et include new resid				□Yes ☑ No
If Yes, show num	bers of units propo				
	One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase					
At completion					
of all phases					
g. Does the propo	osed action include	new non-residentia	l construction (incl	uding expansions)?	✓ Yes No
If Yes,			* Maximur	m building height of 35 feet. An additional 30	
<i>i</i> . Total number	of structures	3_		al equipment on roof.	
<i>ii</i> . Dimensions (in feet) of largest p	roposed structure:	<u>+65*</u> height;	± 200 width; and ± 700 length	
				±14,0(+ square feet	
				Il result in the impoundment of any	☐Yes Z No
-	s creation of a wate	r supply, reservoir,	pond, lake, waste l	agoon or other storage?	
If Yes,	e impoundment:				
<i>ii.</i> If a water imp	oundment, the prin	cipal source of the	water:	☐ Ground water ☐ Surface water strea	ms Other specify:
II w www.		orpan source or and	.,		Gener speen,
iii. If other than v	vater, identify the ty	ype of impounded/o	contained liquids an	d their source.	
iv Approximate	size of the propose	d impoundment	Volume:	million gallons: surface area:	acres
v. Dimensions o	f the proposed dam	or impounding str	ucture:	million gallons; surface area:height;length	
vi. Construction	method/materials 1	for the proposed da	m or impounding st	ructure (e.g., earth fill, rock, wood, con	crete):
					_
D.2. Project Op					
				luring construction, operations, or both	
				s or foundations where all excavated ma	terials
will remain ons	site) Exca s the purpose of the			and utility conduit areas, and all excavated	
II Tes. t. What I	s the purpose or an	rexeavadoreored e	æmig:		
ii. How much ma	terial (including ro	ck, earth, sediment	s, etc.) is proposed t	to be removed from the site?	
 Volume 	(specify tons or cu	bic yards):			
 Over wh 	nat duration of time	?		ged, and plans to use, manage or dispos	
iii. Describe natu	re and characteristi	cs of materials to b	e excavated or dred	ged, and plans to use, manage or dispos	se of them.
iv. Will there be	onsite dewatering	or processing of ex	cavated materials?		Yes No
If yes, descri	1	1 8			
	tal area to be dredg			acres	
				acres	
			or dredging?	feet	
	vation require blas				□Yes □No
ix. Summarize sit	e reciamation goals	s and pian:			
b. Would the pro-	posed action cause	or result in alteration	on of, increase or de	ecrease in size of, or encroachment	✓ Yes No
			ch or adjacent area?		
If Yes:			· ·		
				water index number, wetland map numl	
	See the Draft Wetland submitted to the Town		<u>ion Report prepared b</u>	y Ramboll (November 26, 2024), which has b	peen previously
	submitted to the Town	••			

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square for the control of t	eet or acres:
USACE and NYSDEC will be consulted to confirm jurisdictional status of any wetlands or waterbodies. If agence	
confirmed, the Applicants will obtain all required permits and will conduct work and mitigation consistent with the te those approvals.	ms and conditions of
tilose approvais.	
Will the managed estion cover on result in disturbance to bettern sediments?	N _a ,□N _a
iii. Will the proposed action cause or result in disturbance to bottom sediments?	✓Yes □No
If Yes, describe: Bottom sediments within identified streams and ditches located inside the limits of disturbance (see delin	
iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?	✓ Yes□No
If Yes:	
• acres of aquatic vegetation proposed to be removed: 2.3 Wetland mitigation areas may be	required and will be
expected acreage of aquatic vegetation remaining after project completion: designed in coordination with US Introduction is confirmed Introduction is confirmed	ACE AND INTODEC, II
purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
Removal for building construction	
• proposed method of plant removal: Excavation.	
• if chemical/herbicide treatment will be used, specify product(s): Not applicable	
v. Describe any proposed reclamation/mitigation following disturbance:	
c. Will the proposed action use, or create a new demand for water?	Z Yes □No
If Yes:	F 1 C 31 1 C
i. Total anticipated water usage/demand per day: ±3,000 gallons/day	
ii. Will the proposed action obtain water from an existing public water supply?	✓ Yes □No
If Yes:	F 1 C 31 1 C
Name of district or service area: Southern Cayuga Lake Intermunicipal Water Commission (Bolton Point) Name of district or service area: Southern Cayuga Lake Intermunicipal Water Commission (Bolton Point)	
• Does the existing public water supply have capacity to serve the proposal?	✓ Yes No
• Is the project site in the existing district?	∠ Yes No
• Is expansion of the district needed?	☐ Yes No
 Do existing lines serve the project site? 	✓ Yes□ No
<i>iii</i> . Will line extension within an existing district be necessary to supply the project? If Yes:	□Yes ☑ No
 Describe extensions or capacity expansions proposed to serve this project: 	
Source(s) of supply for the district:	
<i>iv.</i> Is a new water supply district or service area proposed to be formed to serve the project site? If, Yes:	☐ Yes ☑ No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	_
v. If a public water supply will not be used, describe plans to provide water supply for the project:	
vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: gallo	ons/minute.
d. Will the proposed action generate liquid wastes?	✓ Yes □No
If Yes:	
i. Total anticipated liquid waste generation per day: <u>±2,250</u> gallons/day	
ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all com	ponents and
approximate volumes or proportions of each):	1
The only liquid waste generated will be standard sanitary wastewater associated with employee use of restroom facilities.	
iii. Will the proposed action use any existing public wastewater treatment facilities? If Yes:	□Yes Z No
Name of wastewater treatment plant to be used:	
 Name of district: Does the existing wastewater treatment plant have capacity to serve the project? 	□Yes□No
 Is the project site in the existing district? 	☐ Yes ☐No
·	
• Is expansion of the district needed?	□Yes □No

 Do existing sewer lines serve the project site? 	□Yes□No
 Will a line extension within an existing district be necessary to serve the project? 	□Yes□No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? If Yes:	□Yes ☑ No
 Applicant/sponsor for new district: Date application submitted or anticipated: 	
What is the receiving water for the wastewater discharge?	_
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including spec	ifving proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	,8 FF
Sanitary wastewater will be directed to the existing wastewater system or collected in an underground holding tank dedicated to each	n building. Each of the
two holding tanks will be routinely pumped out and waste waters hauled and disposed of off-site in accordance with federal and state	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
Not Applicable	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point	✓ Yes □No
sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	№ 1 €2 11/0
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
i. How much impervious surface will the project create in relation to total size of project parcel?	
Square feet or ± 27.4 acres (impervious surface)	
Square feet or ± 183 acres (parcel size)	
ii. Describe types of new point sources. No new point sources (i.e., no new discharges or outfalls) are proposed as part of the	ne Project.
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent p	roperties
groundwater, on-site surface water or off-site surface waters)?	roperties,
Stormwater will be directed to biofiltration and bioinfiltration systems, including tree trenches and stormwater planters.	
	_
If to surface waters, identify receiving water bodies or wetlands:	
Will stormwater runoff flow to adjacent properties?	☐ Yes No
<i>iv.</i> Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	✓ Yes No
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	✓ Yes □No
combustion, waste incineration, or other processes or operations?	
If Yes, identify:	
i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
Short-term particulate emissions (dust) and equipment exhaust emissions during construction activities.	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
None	
None	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit,	□Yes ☑ No
or Federal Clean Air Act Title IV or Title V Permit?	
If Yes:	
i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO ₂)	
•Tons/year (short tons) of Nitrous Oxide (N ₂ O)	
•Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF ₆)	
 Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs) Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	
• rons/year (short ions) or nazardous Air Pondiants (HAPs)	

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? If Yes: i. Estimate methane generation in tons/year (metric):				
 ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate electricity, flaring): 	heat or			
i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):	es 🗹 No			
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? If Yes: i. When is the peak traffic expected (Check all that apply):	es No			
 V. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? 	es No describe: es No es No es No			
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? If Yes: i. Estimate annual electricity demand during operation of the proposed action: Estimated at 50 MW in Phase I ramping to 138 MW in Phase II. ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): Local Utility - NYSEG iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☑ Yes No				
1. Hours of operation. Answer all items which apply.i. During Construction:ii. During Operations:• Monday - Friday:5 AM - 1 AM• Monday - Friday:24 hours per day• Saturday:5 AM - 1 AM• Saturday:24 hours per day• Sunday:5 AM - 1 AM• Sunday:24 hours per day• Holidays:5 AM - 1 AM• Holidays:24 hours per day				

m.	Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?	Z Yes □No
If	yes:	
	Provide details including sources, time of day and duration:	
Con belo	st <u>ruction: Temporary noise will be limited in duration and mitigated through standard best-practices. Operation: The facility is desi</u> w ambient noise levels through the use of ultra-low-noise motors and fans on exterior equipment. A post-constructio noise survey	gned to operate will be done.
ii.	Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?	Z Yes □No
	Describe: Some tree removal will be required for construction; however, the project includes replanting and landscape screening enhance vegetative buffers.	g to restore and
n.	Will the proposed action have outdoor lighting?	Z Yes □No
	yes:	
i.	Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:	
	Outdoor lighting will be limited to light poles and exterior building-mounted fixtures required for personnel safety. All fixtures will be nward-facing to minimize glare and prevent night-sky light spill.	
ii.	Will proposed action remove existing natural barriers that could act as a light barrier or screen?	∠ Yes □No
	Describe: Tree removal will be required for construction; however, the proposed project includes planting of trees to provide scribe:	eening.
0.	Does the proposed action have the potential to produce odors for more than one hour per day? If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest	☐ Yes Z No
	occupied structures:	
	Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons)	☐ Yes ☑ No
	or chemical products 185 gallons in above ground storage or any amount in underground storage?	
	Yes: Product(s) to be stored	
	Volume(s) per unit time (e.g., month, year)	
	Generally, describe the proposed storage facilities:	
	Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides,	☐ Yes ☑ No
	insecticides) during construction or operation?	
	Yes:	
	i. Describe proposed treatment(s):	
	Will de la	
	<i>i.</i> Will the proposed action use Integrated Pest Management Practices? Will the proposed action (commercial or industrial projects only) involve or require the management or disposal	☐ Yes ☐ No ✓ Yes ☐ No
(of solid waste (excluding hazardous materials)?	M Les III0
	Yes: Describe any solid waste(s) to be generated during construction or operation of the facility:	
ι	• Construction: ±1,140 tons per 25 months (unit of time)	
	• Operation : tons per (unit of time)	
ii	Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:	
	Construction: Recycling and reuse will include pallets, wooden crates, and scrap metal to the greatest extent practicable	, and debris from the
	future demolition of the former coal stack will also be recycled and reused onsite as suitable foundation or	structural fill.
	Operation:	
iii.	Proposed disposal methods/facilities for solid waste generated on-site:	
	Construction: Local landfill.	
	Operation: Local landfill.	

s. Does the proposed action include construction or modifyes:	ification of a solid waste mana	gement facility?	☐ Yes 🗹 No	
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): 				
ii. Anticipated rate of disposal/processing:				
• Tons/month, if transfer or other non-	combustion/thermal treatment	, or		
• Tons/hour, if combustion or thermal treatment				
iii. If landfill, anticipated site life: years Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous ☐Yes ✓No				
t. Will the proposed action at the site involve the comme waste?	rcial generation, treatment, sto	orage, or disposal of hazard	ous ∏Yes No	
If Yes:				
i. Name(s) of all hazardous wastes or constituents to be	e generated, handled or manag	ed at facility:		
<i>ii</i> . Generally describe processes or activities involving l	hazardous wastes or constituer	its:		
iii. Specify amount to be handled or generatedto iv. Describe any proposals for on-site minimization, rec		constituents:		
v. Will any hazardous wastes be disposed at an existing	a offaita hazardaya waata faail	itus?	□Yes□No	
	g offsite nazardous waste facili			
If No: describe proposed management of any hazardous	wastes which will not be sent	to a hazardous waste facilit	y:	
E. Site and Setting of Proposed Action				
E.1. Land uses on and surrounding the project site				
a. Existing land uses.	• , •,			
i. Check all uses that occur on, adjoining and near the		(non form)		
 ☐ Urban ☑ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm) ☑ Agriculture ☐ Aquatic ☐ Other (specify): 				
ii. If mix of uses, generally describe:	(specify).			
The proposed project area will be located on land previously utilize	zed by the former electric generation	ng station or on undeveloped for	orested land.	
Surrounding area is mixture of forested, agricultural, rural and residential use.				
b. Land uses and covertypes on the project site.				
Land use or	Current	Acreage After	Change	
Covertype	Acreage	Project Completion	(Acres +/-)	
 Roads, buildings, and other paved or impervious surfaces 	0	±27.4	+27.4	
• Forested	±40.7	0	-40.7	
 Meadows, grasslands or brushlands (non- agricultural, including abandoned agricultural) 				
Agricultural (includes active orchards, field, greenhouse etc.)				
Surface water features				
(lakes, ponds, streams, rivers, etc.)				
Wetlands (freshwater or tidal)	±2.3	0*	-2.3	
Non-vegetated (bare rock, earth or fill)				
Other Vegetative landscaping Describe:	0	±15.6	+15.6	
Describe:	±391	±391	±391	
· · · · · · · · · · · · · · · · · · ·				

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain:	□Yes☑No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? If Yes, i. Identify Facilities:	∏Yes ∕ No
e. Does the project site contain an existing dam? If Yes: i. Dimensions of the dam and impoundment: • Dam height: • Dam length: • Surface area: • Volume impounded: ii. Dam's existing hazard classification: iii. Provide date and summarize results of last inspection:	□Yes ☑ No
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility,	✓ Yes No
or does the project site adjoin property which is now, or was at one time, used as a solid waste management facil If Yes: i. Has the facility been formally closed? • If yes, cite sources/documentation: system for the landfill was substantially completed on October 13, 2020. ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: Area to the east is identified in DEC InfoLocator as an inactive solid waste landfill.	
iii. Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes: i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred Hazardous wastes were historically associated with the former power generation facility; these legacy materials have been removed.	
properly disposed of in accordance with regulatory requirements. The proposed action will not generate hazardous waste.	
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? If Yes:	✓ Yes□ No
 i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ✓ Yes – Spills Incidents database ✓ Yes – Environmental Site Remediation database ✓ Provide DEC ID number(s): Various closed spills ✓ Provide DEC ID number(s):	✓ Yes□No
ii. If site has been subject of RCRA corrective activities, describe control measures:Not Applicable	
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s):	□Yes☑No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	

v. Is the project site subject to an institutional control limiting property uses?	□Yes ☑ No			
 If yes, DEC site ID number: Describe the type of institutional control (e.g., deed restriction or easement): 				
Describe any use limitations:				
 Describe any use limitations: Describe any engineering controls: 				
 Will the project affect the institutional or engineering controls in place? 	□Yes□No			
• Explain:				
a. What is the average depth to bedrock on the project site? ±20 feet				
b. Are there bedrock outcroppings on the project site? If Yes, what proportion of the site is comprised of bedrock outcroppings?%	☐ Yes Z No			
c. Predominant soil type(s) present on project site: Lodgement Till ~100 %				
d. What is the average depth to the water table on the project site? Average: ± 10 feet				
e. Drainage status of project site soils: Well Drained: % of site				
✓ Moderately Well Drained:~100 % of site ☐ Poorly Drained % of site				
f. Approximate proportion of proposed action site with slopes: 0-10%: ±33 % of site				
The proportion of proposed action site with slopes. \checkmark 10-15%: \checkmark 236 % of site				
✓ 15% or greater: $\frac{\pm 31}{}$ % of site				
g. Are there any unique geologic features on the project site? If Yes, describe:	☐ Yes No			
h. Surface water features. Refer to the Draft Wetland/Stream Delineation Report previously submitted to the Town.				
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers,	✓ Yes□No			
ponds or lakes)? ii. Do any wetlands or other waterbodies adjoin the project site?	✓ Yes□No			
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	105_10			
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal,	✓ Yes□No			
state or local agency?				
 iv. For each identified regulated wetland and waterbody on the project site, provide the following information: Streams: Name See Draft Wetland/Stream Delineation Report Classification 				
Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size				
 Wetlands: Name See Draft Wetland/Stream Delineation Report Wetland No. (if regulated by DEC) 				
Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size	☐ Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired 	□Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: 	□Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: i. Is the project site in a designated Floodway? 	□Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: 	□Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: i. Is the project site in a designated Floodway? 	☐Yes Z No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: i. Is the project site in a designated Floodway? j. Is the project site in the 100-year Floodplain? k. Is the project site in the 500-year Floodplain? l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? 	☐Yes ☑No ☐Yes ☑No ☐Yes ☑No			
 Wetlands: Name See Draft Wetland/Stream Delineation Report Approximate Size Wetland No. (if regulated by DEC) v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired: i. Is the project site in a designated Floodway? j. Is the project site in the 100-year Floodplain? k. Is the project site in the 500-year Floodplain? 	☐Yes ☑No ☐Yes ☑No ☐Yes ☑No ☐Yes ☑No			

m. Identify the predominant wildlife s		he project site:			
White tailed deer			Red Fox	_	
Opposum	Pheasant		Woodchuck		
Wild turkey	Geese				
n. Does the project site contain a desigIf Yes:i. Describe the habitat/community (c	Č	•	١.	☐Yes Z No	
i. Describe the habital/community (c	omposition, function, and t	basis for designation,)·		
ii. Source(s) of description or evaluation	ion:			_	
iii. Extent of community/habitat:					
• Currently:			acres		
Following completion of proj			cres		
• Gain or loss (indicate + or -):		a	cres		
 o. Does project site contain any specie endangered or threatened, or does it If Yes: i. Species and listing (endangered or threatened) 	contain any areas identified			☑ Yes□No cies?	
The EAF Mapper identified lake sturgeon as occur within or immediately adjacent to Cayu (Candidate), but no habitat-impacting activitie	ga Lake. The site is also withir	owever, no in-water or so the range of northern	shoreline work is proposed, and long-eared bat (Endangered) a	d no disturbance will nd monarch butterfly	
p. Does the project site contain any sp special concern?	ecies of plant or animal tha	at is listed by NYS as	s rare, or as a species of	□Yes ☑ No	
If Yes: i. Species and listing:					
q. Is the project site or adjoining area of the second of				✓ Yes □No	
cayuga Lake is used for recreational fishing. No impacts are anticipated.					
,					
E.3. Designated Public Resources O	n or Near Project Site				
 a. Is the project site, or any portion of Agriculture and Markets Law, Artic If Yes, provide county plus district na 	ele 25-AA, Section 303 and	1 304?	•	∐Yes ✓No	
b. Are agricultural lands consisting of <i>i</i> . If Yes: acreage(s) on project site?				□Yes Z No	
ii. Source(s) of soil rating(s):					
c. Does the project site contain all or p Natural Landmark? If Yes:	part of, or is it substantially	contiguous to, a reg	ristered National	□Yes ☑ No	
i. Nature of the natural landmark:ii. Provide brief description of landmark			ogical Feature pproximate size/extent:		
d. Is the project site located in or does If Yes: i. CEA name: ii. Basis for designation:	·			∐Yes ⊉ No	
ii. Basis for designation:					
iii. Designating agency and date:	iii. Designating agency and date:				

e. Does the project site contain, or is it substantially contiguous to, a but which is listed on the National or State Register of Historic Places, of Office of Parks, Recreation and Historic Preservation to be eligible for the National Preservation of the Parks.	or that has been determined by the Commissi	
If Yes:i. Nature of historic/archaeological resource: □ Archaeological Siteii. Name: The Cayuga Operating Company LLC coal fired power plant is listed	☑ Historic Building or District das an Eligible Building.	
iii. Brief description of attributes on which listing is based:Listing is based on Criterion A: Industry & Criterion C: Architecture as an intact an	d increasingly rare example of a once substantial	industrial enterprise in
f. Is the project site, or any portion of it, located in or adjacent to an ar archaeological sites on the NY State Historic Preservation Office (SI		✓ Yes □No
g. Have additional archaeological or historic site(s) or resources been in If Yes:i. Describe possible resource(s):		∐Yes Z No
ii. Basis for identification:		
h. Is the project site within fives miles of any officially designated and scenic or aesthetic resource? If Yes:	publicly accessible federal, state, or local	∠ Yes □No
 i. Identify resource: <u>Cayuga Lake Scenic Byway and Blueway Trail / Cayug</u> ii. Nature of, or basis for, designation (e.g., established highway overletc.): <u>Scenic Byway, Wildlife Management Area, and State Park</u> 	look, state or local park, state historic trail or	
 iii. Distance between project and resource: ±0.60 (Byway) r i. Is the project site located within a designated river corridor under th 		□ Mac ZINIa
Program 6 NYCRR 666? If Yes:		□ Yes ☑ No
i. Identify the name of the river and its designation:ii. Is the activity consistent with development restrictions contained in	n 6NYCRR Part 666?	□Yes □No
F. Additional Information Attach any additional information which may be needed to clarify yo If you have identified any adverse impacts which could be associated measures which you propose to avoid or minimize them.	•	npacts plus any
G. Verification I certify that the information provided is true to the best of my knowl	edge.	
Applicant/Sponsor Name Cayuga Data Campus / Lake Hawkeye LLC	Date October 28, 2025	
Signature <u>Jean Ferrel</u>	Title Chief Operating Officer	

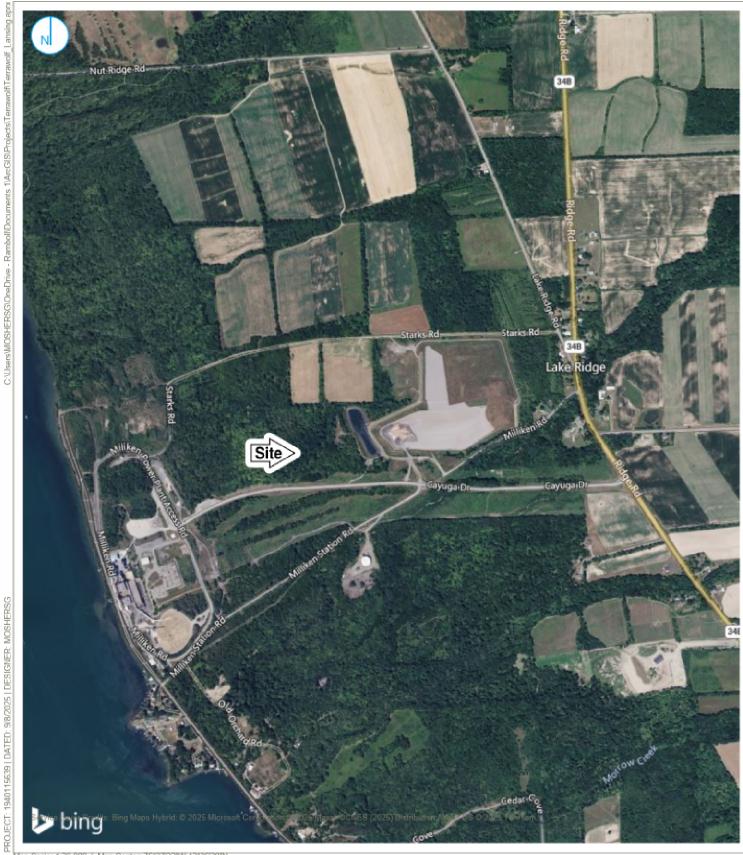


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources to confirm data provided by the Mapper or to obtain data not provided by the Mapper.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.h.ii [Surface Water Features]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.

E.2.I. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Lake Sturgeon
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No



Map Scale: 1:20,000 | Map Center: 76"37'22"W 42"36'28"N

SITE LOCATION

FIGURE 01

KEY MAP

0 1,000 2,000

Cayuga Operating Company, LLC. 228 Cayuga Drive Lansing, NY 14882 RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC. A RAMBOLL COMPANY



Section 9 Site Plan Renderings













Section 10 Acoustical Design Memo



MEMO

Project name Lake Hawkeye
Project no. 1940113922
Client Terawulf, LLC

From Hanna Yanglou, P.Eng., Senior Lead Consultant, Ramboll

Jeff Szymanski, P.E., Senior Managing Consultant, Ramboll

Brent Ferren, P.E., Principal, Ramboll

Description Preliminary acoustical design evaluation for the Cayuga Lansing campus

project consisting of three (3) data center buildings. This assessment is based on the site drawing dated September 10, 2025. This work was undertaken in accordance with the agreement between Ramboll Americas Engineering Solutions, Inc. (RAES) and Cayuga Operating Company, LLC,

dated May 6, 2025.

Cayuga Lansing Design Engineering Project – Preliminary Acoustical Design Evaluation R1

This memo provides a summary of preliminary acoustical design evaluation for the Cayuga Lansing campus of three (3) data centers.

Applicable Regulatory Limits

The State of New York Environmental Quality Review Act (SEQR) has a policy and guidelines for assessing noise impacts. Table 1 outlines the applicable recommendations for the site in reference to the SEQR Section V.B.1.c., "Thresholds for Significant Sound Pressure Level Increase."

Table 1. State of New York SEQR Summary

New York State Environmental Quality Review Policy								
Receptor Classification Maximum Permissible Soun Pressure Levels								
Non-industrial (Posidential)	Ambient + 6 dBA (Complaint Risk)							
Non-industrial (Residential)	Upper Limit of 65 dBA							

Existing conditions have not yet been established and will be assessed through an ambient sound level survey. Therefore, the specific applicable regulatory limits cannot yet be identified and are noted above as "Ambient +6 dBA".

Acoustical Design Analysis

Ramboll has completed a preliminary acoustical design analysis for the Cayuga Lansing campus. The acoustical analysis incorporated the project layout and design from the Cayuga Site Development Package R2 dated September 10, 2025 and internal Ramboll models, with equipment sound power level specifications as provided by the manufacturers. Sound levels were evaluated along the property boundaries of the closest north, east, and south residential receptors near the project site. The results are shown in Table 2 and Figure 1.

Based on the predicted sound pressure levels, a measured ambient noise level of 37+ dBA at R1, 33+ to 34+ dBA at R2 and R3 would be required to meet the regulatory requirements. This area is

Ramboll 82 Corporate Woods 10851 Mastin Boulevard Suite 100 Overland Park, KS 66210 USA

Date: October 27, 2025

T+1 913 553 5922 https://ramboll.com



characterized by a rural environment, with sound pressure levels typically ranging from 30 to 45 dBA. The exact ambient sound levels measurements will depend on the nature and intensity of the existing noise sources.

If facility sound levels exceed regulatory limits, mitigation options like enclosures, silencers, or acoustical barriers may be considered after assessing ambient conditions to meet project acoustical criteria.

Table 2. Predicted Modeling Results for Specific Receptors

Receptor Location	Description	Most Stringent Description Regulatory Limit (dBA)		Maximum Ambient Sound Level at Receptors that would trigger noise abatement ¹	
R1	South Residential	Ambient + 6	43	37	
R2	East Residential Ambient + 6		40	34	
R3	North Residential	Ambient + 6	39	33	

¹ For example: if the ambient is above 37 DBA at Receptor R1 then no noise abatement is needed for regulatory compliance and if the ambient is 37 DBA or below at Receptor R1 then noise abatement is needed for regulatory compliance.

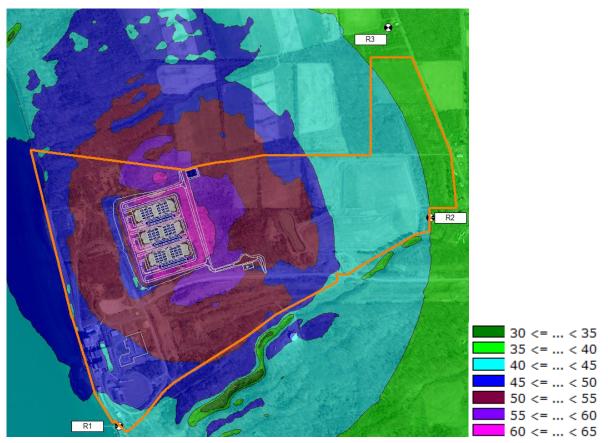


Figure 1. Predicted Sound Pressure Level Contours and Receptor Locations for Project Site

Section 11 Photometric and Lighting Layout



MEMO

Project name Research based Artificial Intelligence Computer Server Buildings

Client Cayuga Operating Company, LLC

Date September 08, 2025

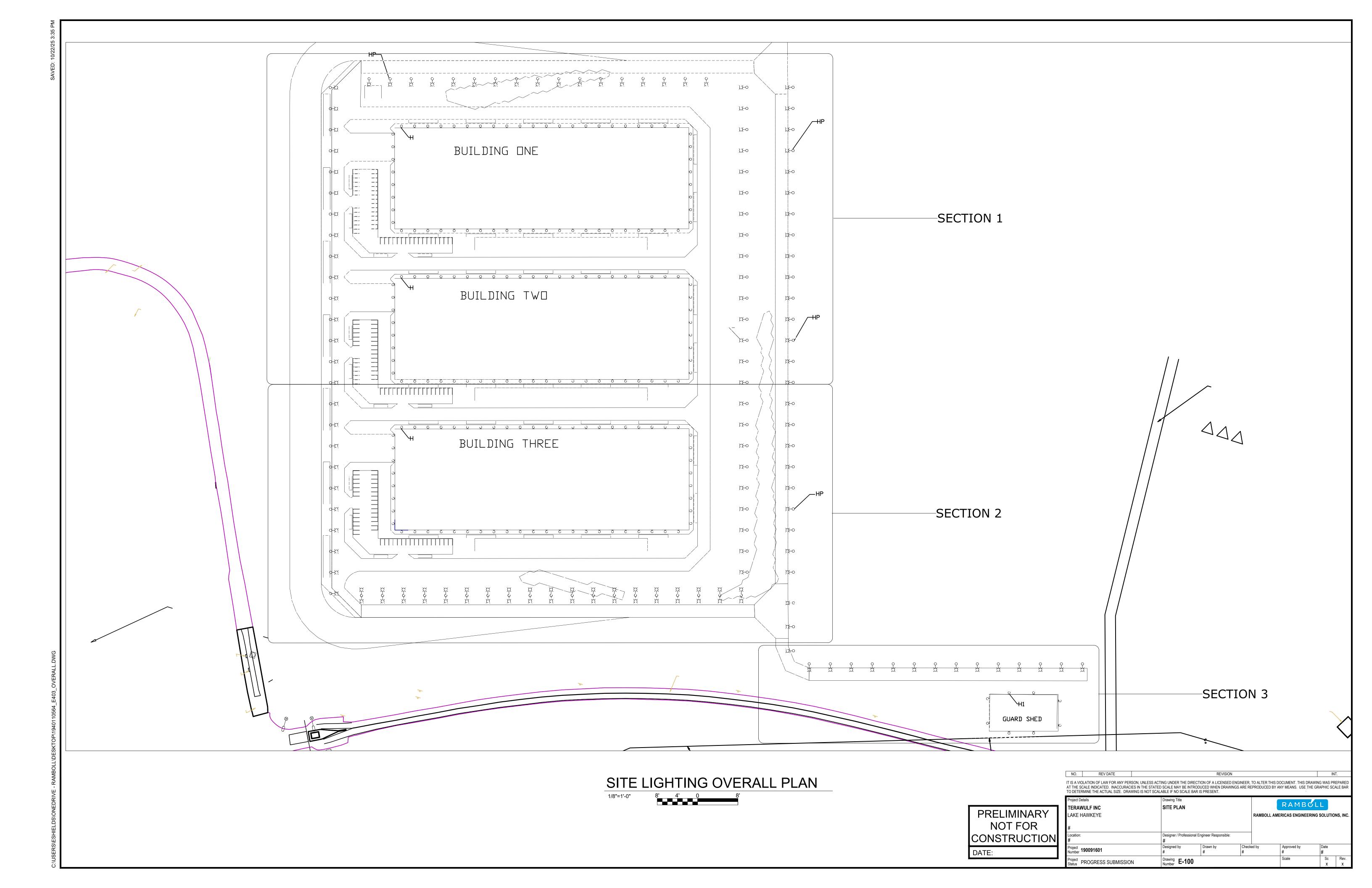
Site Lighting and Electrical Utility Strategy

Site Lighting

Site lighting will consist of roadway pole mounted lights and exterior building wall packs for safety and security. Both the roadway lighting and building wall packs will utilize a full cutoff design technology directing 100% of the light downward in effort to mitigate any upward emission. This design concept prevents light pollution and shields any direct light glare.

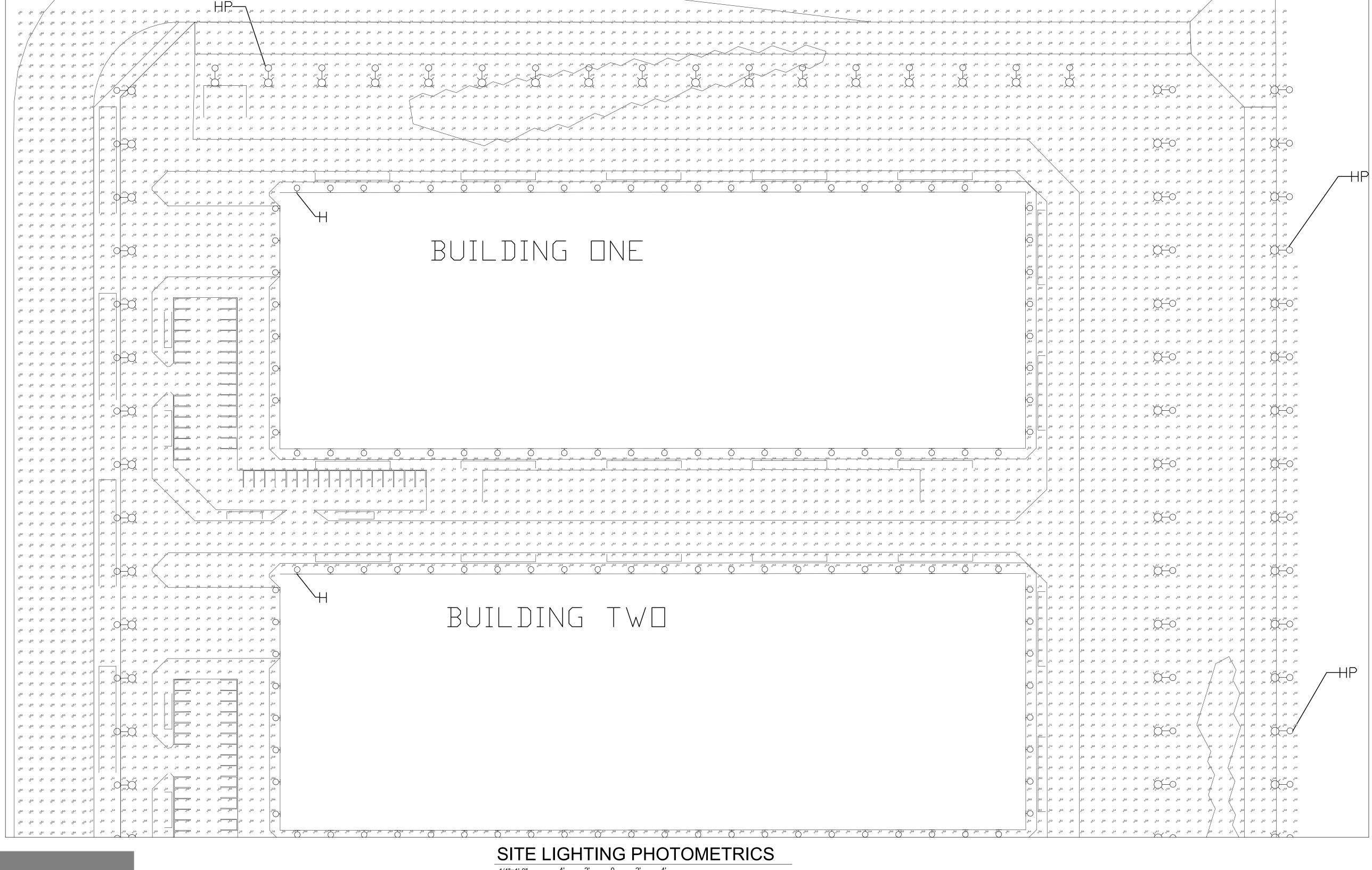
Electrical Utility

Power will be sourced from the existing Milliken station NYSEG 115kV substation located on the site. Two 115kV feeders will be routed overhead to a new substation yard. Medium voltage feeders will be routed underground from the substation yard to desired buildings.



2. THE RECOMMENDED AVERAGE LIGHTING LEVEL FOR BUILDING EXTERIORS AND PEDESTRIAN WALKWAYS AND PATHWAYS IS 1-5 FOOT-CANDLES PER IESNA.

- 3. THE RECOMMENDED AVERAGE LIGHTING LEVEL FOR ROADWAYS AND STREETS IS 1-2 FOOT-CANDLES PER IESNA.
- 4. A DARK SKY COMPLIANT FIXTURE IS DESIGNED TO REDUCE LIGHT POLLUTION BY DIRECTING LIGHT DOWNWARD AND MINIMIZING GLARE. IT MUST BE FULLY SHIELDED, EMIT NO LIGHT ABOVE THE HORIZONTAL PLANE, AND USE A COLOR TEMPERATURE OF 3000K OR LOWER.



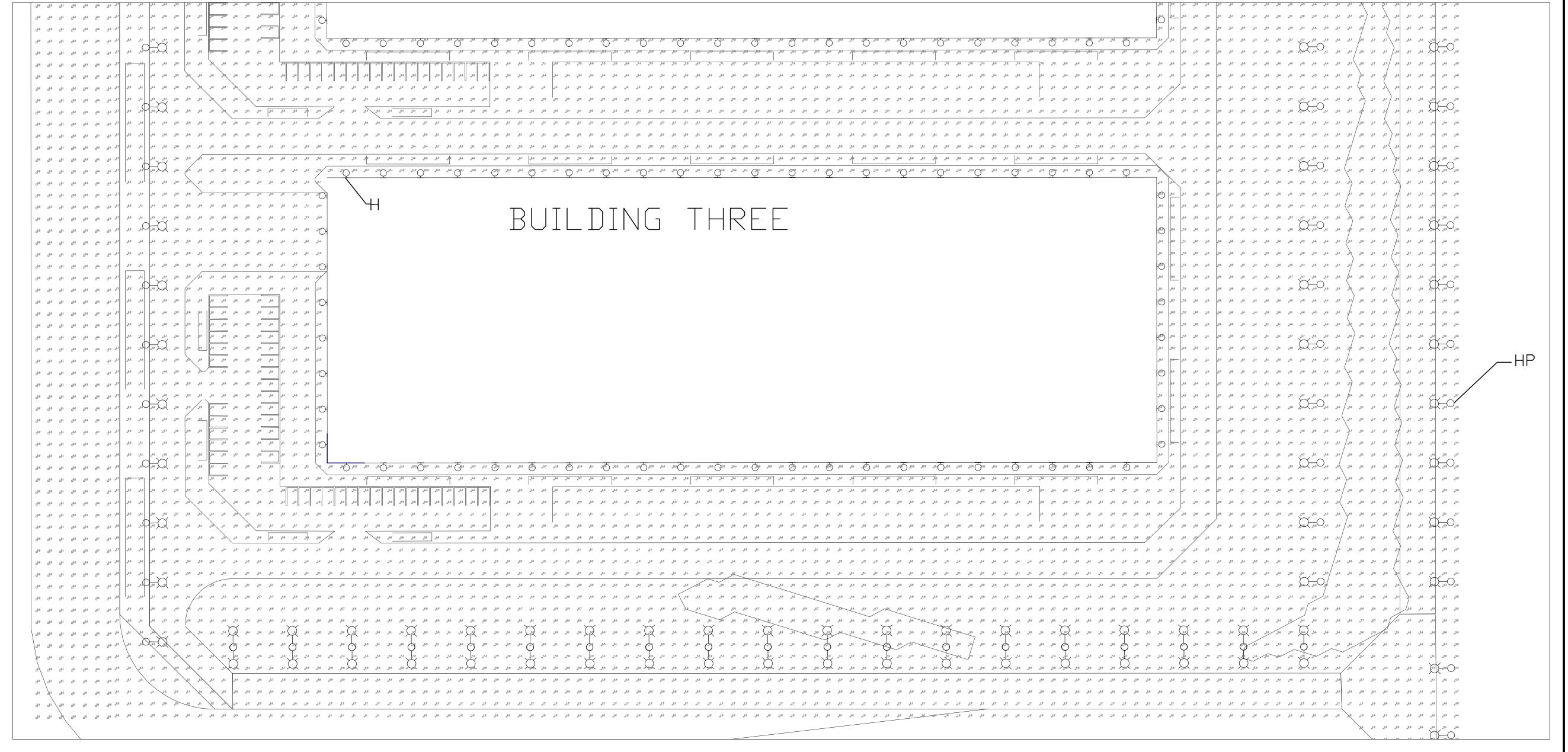
Statistics		
Description	Symbol	Avg
Building One Exterior	+	4.3 fc
Building Three Exterior	+	4.3 fc
Building Two Exterior	+	4.4 fc
Exterior Perimeter Road	+	3.0 fc
Guard Shed Exterior	+	3.1 fc
Parking Building One	+	1.2 fc
Parking Building Three	+	1.3 fc
Parking Building Two	+	1.2 fc
Past Tree Line		0.4 fc
Site Overall	+	3.6 fc

	LIGHTING FIXTURE SCHEDULE													
ID	FIXTURE QTY	LAMP TYPE	NO. OF LAMPS	MOUNTING	LAMP WATTAGE	VOLTAGE	FIXTURE SIZE AND DESCRIPTION	MFR	CATALOG NO.	REMARKS/ACCESSORIES				
HP	147	LED	NA	POLE MOUNT (25' AFG)	190.6	MVOLT	EXTERIOR ARCHITECTURAL AREA LUMINAIRE	LUMINIS	PL240-L1L180-SYR-30K-MVOLT-NLTH- PH7-MS-SP-U0-BKT-MG	PROVIDE WITH STRAIGHT EDGE DIFFUSER (U0) FOR ZERO UPLIGHT				
Н	180	LED	NA	SURFACE/WALL (15' AFG)	76.2	MVOLT	EXTERIOR WALL-PACK FULL CUT OFF WIDE LIGHT DISTRIBUTION	LITHONIA	WDGE4-LED-P1-30K-70CRI-R3-MVOLT- SRM-PE-PIR-DBLXD	PROVIDE WITH 30K COLOF TEMPERATURE AND SRM MOUNTING FOR DARK SKY COMPLIANCE SEAL OF APPROVAL				
H1	8	LED	NA	SURFACE/WALL (15' AFG)	76.2	MVOLT	EXTERIOR WALL-PACK FULL CUT OFF WIDE LIGHT DISTRIBUTION	LITHONIA	WDGE4-LED-P1-30K-70CRI-R4-MVOLT- SRM-PE-PIR-DBLXD	PROVIDE WITH 30K COLOR TEMPERATURE AND SRM MOUNTING FOR DARK SKY COMPLIANCE SEAL OF				

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#											
Location: #		Designer / Profession#	Designer / Professional Engineer Responsible: #								
Project Number 19	00091601	Designed by #	signed by Drawn by Check #			Approved by #	Date #				
Project Status PI	ROGRESS SUBMISSION	Drawing E-10	Drawing Number E-101			Scale	Sc X	Rev.			

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SITE LIGHTING PHOTOMETRICS 1/4"=1'-0" 4' 2' 0 2' 4'

Statistics		
Description	Symbol	Avg
Building One Exterior	+	4.3 fc
Building Three Exterior	+	4.3 fc
Building Two Exterior	+	4.4 fc
Exterior Perimeter Road	+	3.0 fc
Guard Shed Exterior	+	3.1 fc
Parking Building One	+	1.2 fc
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Parking Building Two	+	1.2 fc
Past Tree Line		0.4 fc
Site Overall	+	3.6 fc

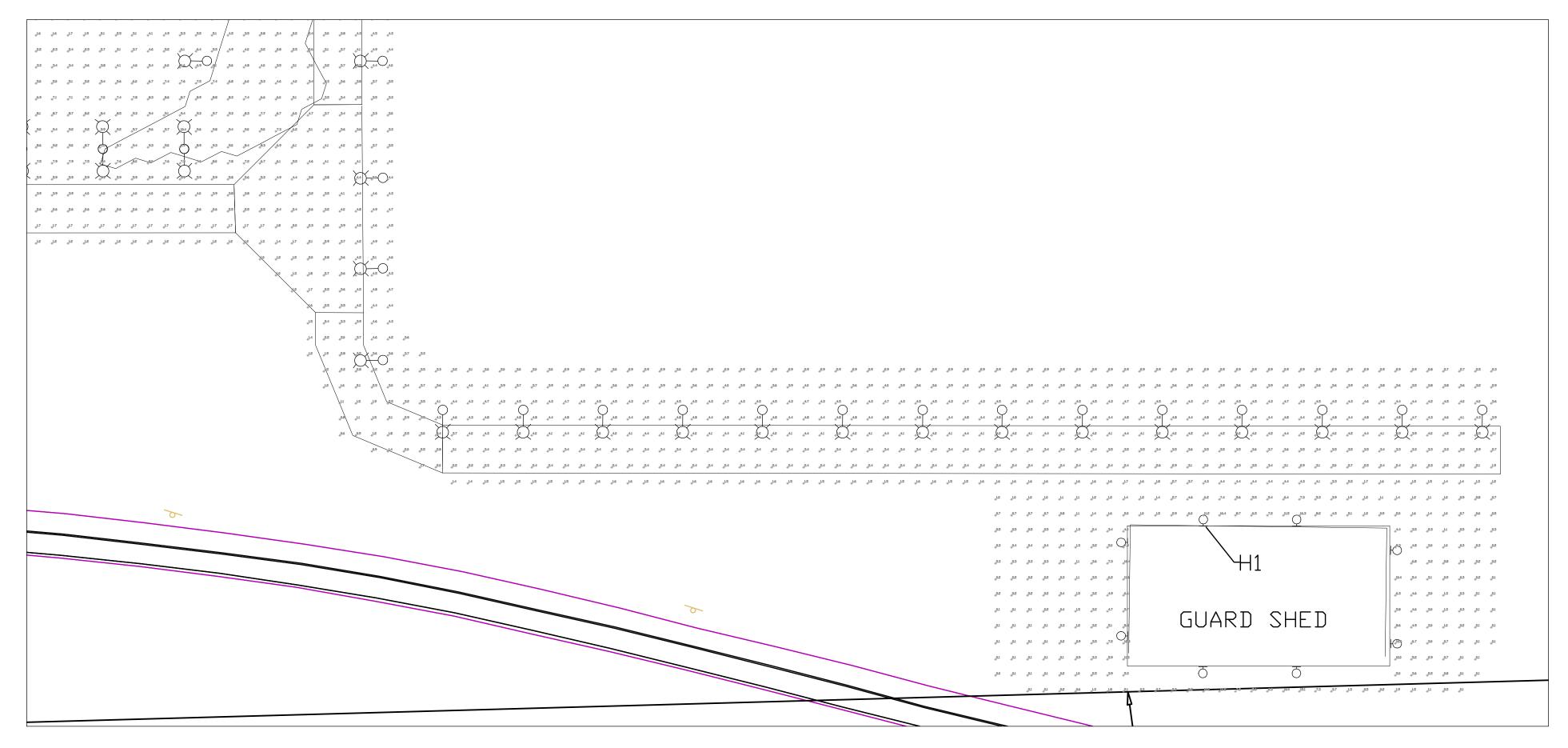
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	LAKE H	AWKEYE					RAMBOLL AMERICAS ENGINEERING SOLUTIONS			NS, INC.		
	#											
	Location: #			Designer / Profession#	esigner / Professional Engineer Responsible:							
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LIGHTING PLAN NOTES

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