

ROBERT LAGA
Chairman

NICHOLAS FANNIN
Vice Chairman

RICHARD FRANZETTI, P.E.
Wetland Inspector

ROSE TROMBETTA
Secretary

TOWN OF CARMEL
ENVIRONMENTAL CONSERVATION BOARD



60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 - Ext. 190
www.ci.carmel.ny.us

BOARD MEMBERS

Edward Barnett
Anthony Federice
Nicole Sedran

ENVIRONMENTAL CONSERVATION BOARD AGENDA

MAY 18, 2023 – 7:30 P.M.

EXTENSION OF WETLAND PERMIT

<u>APPLICANT</u>	<u>ADDRESS</u>	<u>TAX MAP #</u>	<u>COMMENTS</u>
1. Veolia (Formerly known as Suez Water New York) Chateau Wells	59 McNair Drive	75.20-1-16	Upgrades to Existing Well Site

SUBMISSION OF AN APPLICATION OR LETTER OF PERMISSION

2. Veolia (Formerly known as Suez Water New York) Mahopac Wells	Coventry Circle	75.20-2-68	Installation of Utility Poles & Lines
3. Schoenbeck, Uwe	252 West Lake Blvd	64.16-1-31	Reduction of Outdoor Pool

MISCELLANEOUS

4. Minutes – 03/16/23



May 10, 2023

To: Mr. Robert Laga, Chairman
Town of Carmel Environmental Conservation Board

Re: Request for extension of SUEZ Water New York, Inc. – Chateau Well 1, 2 & 3
Wetland Permit #984 (59 McNair Drive, Mahopac, NY 10541)

Cc: Ms. Rose Trombetta, Secretary

Dear Mr. Laga:

This letter is to request the Town of Carmel Environmental Conservation Board (ECB) to kindly grant an extension of the wetland permit for the above referenced project.

The current wetland permit (attached) was granted on July 21, 2022, and is set to expire on July 21, 2023.

Construction on the project site is ongoing and is anticipated to be completed by December 2023. Therefore, an extension of the wetland permit would be necessary.

Please place this project on the next available meeting agenda so the Board may consider this request. Thank you for your cooperation in this matter.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "S. R. Garabed", written over a horizontal line.

Steven R. Garabed, P.E.
Manager of Engineering
VEOLIA NORTH AMERICA

WETLAND PERMIT

Application for renewal must be made at least 30 days
before the expiration of this permit (See Item 8)

Permit # 984

Tax Map #75.20-1-16

Date Permit Granted: July 21, 2022

Permit Expiration: July 21, 2023
(One Year from date of Issue)

NOT TRANSFERABLE - If title to all or part of the property described in this permit is transferred to a new owner other than the holder of this permit then the new owner must contact the Town of Carmel Environmental Conservation Board (ECB) and pay all fees based upon the current schedule. A copy of the permit in the name of the new owner must be issued before said permit is valid. Permits that have expired must be renewed before they are valid. **NO WORK MAY CONTINUE UNTIL PERMIT IS RE-ISSUED AND THE APPLICABLE FEE IS PAID.**

CHAPTER 89: Fresh water Wetlands and Watercourses of the Code of the Town of Carmel, New York. The Carmel Environmental Conservation Board, as approval Authority, has determined that the proposed action is an Unlisted Action under SEQRA and will not have a significant impact. Therefore, a **WETLAND PERMIT** is granted subject to the conditions noted below.

Owner/Permittee: SUEZ Water New York, Inc. (Chateau Well Site)

Address of Permittee: 162 Old Mill Road, West Nyack, NY 10994

Location of Proposed Work: 59 McNair Drive, Mahopac, NY 10541

Description of Project: The construction of upgrades (treatment facility) at their existing well site. The site upgrades include upsizing of the existing well pumps and installation of a treatment building with a granular activated carbon (GAC) treatment system.

Materials reviewed:

- 1) Wetland Permit Application Dated: *January 26, 2022*
- 2) Property Survey (Plans) By: *Atzl, Nasher & Zigler PC*
Revision Date: *04/27/22*
- 3) Site Inspection Performed By: *N/A* **Date Inspected:** *N/A*

All work to be performed according to the above referenced plans.

CONDITIONS OF PERMIT

- 1) The permitted work shall be subject to inspection by the Wetland Inspector, Building Department or Engineering Department and that work authorized under this permit may be ordered suspended if the public interest so requires.
- 2) Any material dredged in the prosecution of the work herein permitted shall be removed evenly, without leaving large refuse piles, ridges across the bed of the waterway or flood plain or deep holes that may have a tendency to cause injury to navigable channels or to the banks of the waterway. Such removed material shall not be disposed of on any other property within the Town of Carmel unless a permit has been issued by the Town of Carmel Planning Board and/or Building Department.
- 3) The Secretary of the ECB is to be personally contacted TEN (10) days prior to commencement of work so that the Wetland Inspector may conduct on site inspection of sediment and erosion controls in place and review the construction sequence with the owner. **No WORK may start until such Inspection has been made.** The Permittee shall notify the ECB Secretary upon completion of the work authorized by this permit.
- 4) Construction shall be accordance with the approved site plan, the conditions stated herein on this permit and the most recent edition of the New York State Department of Environmental Conservation (NYSDEC) New York Standards and Specifications for control.
- 5) All erosion control measures shall be maintained properly throughout the construction process, and remain in place until final site inspection by Wetland Inspector for compliance with permit. Any silt collected by the silt fence shall be removed and placed at least 100 feet from wetland or watercourse or properly disposed of. Unless otherwise specified, the measures shall be maintained in accordance with the most recent edition of the NYSDEC Standards and Specifications for Erosion and Sediment Controls.
- 6) The approved wetland boundary flagging as shown on the approved site plan must be maintained in place for the duration of construction and the 100 foot wetland buffer must be defined by orange construction fence during construction unless the Wetland Inspector determines that this is not necessary or feasible.
- 7) The Wetland Inspector, Building Department or Engineering Department of the Town of Carmel is authorized to make such on site inspections during the permitted activity as are necessary to determine whether the activity is being carried on in compliance with the provisions of the permit.

- 8) The Building Inspector or Town Engineer may, on written notice from the Wetland Inspector, suspend or revoke an issued permit when it finds that the Applicant has not complied with any or all conditions of the permit, has exceeded the authority granted in the permit, or has failed to undertake the project in the manner set forth in the application.
- 9) Issuance of this permit by the Town does not imply any obligation, liability or responsibility for any damages, direct or indirect of whatsoever nature, as a result or consequence of any action or activity undertaken as a result of the permit.
- 10) This permit shall not be construed as conveying to the applicant any right to trespass upon the lands or interfere with riparian rights of others to perform the permitted work or as authorizing the impairment of any rights, title or interest in real or personal property held or vested in a person or others in performing the permitted work.
- 11) The permit shall expire on the date indicated on the face of the Permit. If the applicant has not completed the permitted action or actions herein granted, then the applicant may apply to the ECB for renewal of the permit for periods not to exceed one (1) year. **Application for renewal MUST be made at least 30 days before the expiration date of the permit.**
- 12) This permit must be maintained and prominently displayed at the project site during the time permitted activities are carried on. The permittee is responsible for obtaining any other permits, approvals, land and easements and rights which may be required by this project.
- 13) All work carried out under this permit shall be performed in accordance with established engineering practice, in a professional manner and in compliance with all applicable codes, rules and regulations of the Federal, State (NY), County (Putnam) and Town (Carmel).
- 14) The ECB reserves the right to reconsider this approval at any time and after due notice and hearing to continue, rescind or modify this Permit in such a manner as may be found to be just and equitable. If upon the expiration or revocation of this Permit, the modification of the wetland hereby authorized has not been completed, the applicant shall, with no expense to the Town and to such extent and in such a time and manner as the ECB may require removal of all or any portion of the uncompleted structure or fill and restore the site to its former condition. NO CLAIM shall be made against the Town on account of such removal or alteration.

SPECIAL CONDITIONS

1. **Town Wetland Inspector to do pre and post site visit for installation of erosion control.**

2. Submit Approved SWPP Plan to file *JK*

3. _____

NON-COMPLIANCE WITH ANY OF THE CONDITIONS ABOVE WILL INVALIDATE THIS **WETLAND PERMIT** AND MAY RESULT IN A **NOTICE OF VIOLATION AND/OR STOP WORK ORDER.**

I have read, understand and agree to all the conditions of this permit.

Applicant's Signature: *[Signature]* Date: 7-26-22

Applicant's Name (Print): STEVEN R. GARABED

Chair - ECB Signature: *[Signature]* Date: 7/21/22

Chair - ECB Name (Print): ROBERT M. LAZZA

- cc: File
 Applicant
 Building Inspector
 Assessor
 Wetland Inspector
 Town Planner (if applicable)
 Planning Board (if applicable)

Hunters Run
Homeowners Association

DATE 5/4/2023

Environmental Conservation Board
60 McAlpin Avenue
Mahopac NY 10541

rtrombetta@ci.carmel.ny.us

RE: Veolia Application to allow new electrical service from Buckshollow Road

Dear Chairman Laga and Members of the Board,

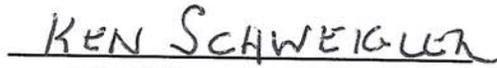
I write this letter to confirm that the Hunters Run HOA, owner of the property in question, consents to and endorses the new electric service application by Veolia.

Sincerely,

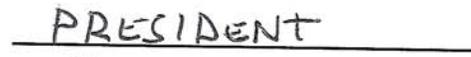
Hunters Run HOA
BY: its Authorized officer/agent



Signature



Printed Name



Title

- The name of the professional delineator and date of the delineation;
 - The survey location of the wetlands performed no earlier than thirty six months prior to the date of filing the application.
 - All wetland delineations are subject to inspection and approval by the Town of Carmel's Wetland Inspector. All wetland flagging must be current and visible in the field at the time of the inspection.
 - A project narrative which describes the proposed scope of work, the order in which it will be performed and the reasons for the Wetland Permit Applications, as per the criteria outlined in 62-1 of the Town Code.
 - Existing site topography/contours at 2' intervals
 - Proposed site topography/contours at 2' intervals
 - Location of existing flood plains
 - The location of existing and proposed site features (where applicable) which can include but are not limited to:
 - Septic systems and associated leach fields (including future expansion fields);
 - Culverts, drains and the associated discharge points;
 - Private, town, county and state road;
 - Driveways;
 - Property boundaries;
 - Roof leaders;
 - Dry wells;
 - Drinking water sources;
4. Details of any drainage system proposed to perform the work and after completion of the work (i.e., final site layout). It should be noted that Environmental Conservation Board may require additional site details and studies which can include but are not limited to: **Not Applicable**
- Pipes, culverts, storm sewers, and catch basins;
 - Proposed conveyance capacity assessments;
 - Retention, Detention or infiltration ponds;
 - Assessment of flooding potential (upstream or downstream)

Any additional studies and design details requested by the Environmental Conservation Board are subject to inspection and approval by the Engineer of the Town of Carmel.

5. **Erosion and Sediment Control measures to be used on site during the proposed site work. Please note that depending on the size of the project this information can either be included as part of the site plan or as a separate Soil Erosion and Sediment Control Plan as per the New York State Department of Environmental Conservation (NYSDEC) Regulations.**
See attached for document by Atzl, Nasher & Zigler, P.C.
6. **Stormwater management practices (SMPs) to be used on site during the proposed site work and future storm water controls. Please note that depending on the size of the project this information can either be included as part of the site plan or as a separate Stormwater Pollution Prevention Plan as per the NYSDEC State Stormwater Discharge Elimination System (SPDES) General Permits for either Stormwater Discharge from Construction Sites (GP-02-01) or from Municipal Separate Stormwater Sewer Systems (MS4's) (GP-02-02 and the New York City Department of Environmental Protection).** Not Applicable to the electrical upgrade
7. **Copies of All correspondence between relevant Regulatory agencies such as the NYSDEC and the NYCDEP. This can include but not be limited to:**
 - Approval letters;
 - Notice of Intents (NOIs);
 - Approved applications.
8. **Short Form EAF. Unless the application is for repair, replacement (in kind) or maintenance.** * A Long EAF Part 1 has been provided. This project is classified as a Type II Action.

Other Site Requirements:

Wetland should be staked/identified in the field at 200' intervals. If requested by the ECB, all site work and other changes to the site may be required to be staked/identified in the field.

Thirty days after your application is accepted you must return to the board for issuance of your permit or denial of your application.

Applications by a municipality shall be signed by the Chief Executive Officer thereof or the head of the department or agency undertaking the project.

The town shall publish in the official town newspaper a "NOTICE OF APPLICATION" as provided by Chapter 89-5 of The Town of Carmel Town Code.

If other than owner makes application, written consent of the owner must be accompany application.

Acceptance of a permit subjects permittee to restrictions, regulations or obligations stated in application and/or permit.

ROBERT LAGA
Chairman

NICHOLAS FANNIN
Vice Chairman

RICHARD FRANZETTI
Wetland Inspector

ROSE TROMBETTA
Secretary

**TOWN OF CARMEL
ENVIRONMENTAL CONSERVATION BOARD**



60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 - Ext. 190
www.ci.carmel.ny.us

BOARD MEMBERS

Edward Barnett
Anthony Federice
Nicole Sedran

APPLICATION FOR WETLAND PERMIT OR LETTER OF PERMISSION

Name of Applicant: Veolia Water New York, Inc.

Address of Applicant: 162 Old Mill Road
West Nyack, NY 10994 **Email:** steven.garabed@veolia.com

Telephone# 845-620-3319 **Name and Address of Owner if different from Applicant:**

Hunter's Run Homeowners' Association

Property Address: Coventry Circle, Mahopac, NY 10541 **Tax Map #** 75.20-2-68

Agency Submitting Application if Applicable: Gannett Fleming, Inc.

Location of Wetland: Shown on the site plan

Size of Work Section & Specific Location: See attached description

Will Project Utilize State Owned Lands? If Yes, Specify: No

Type and extent of work (feet of new channel, yards of material to be removed, draining, dredging, filling, etc). A brief description of the regulated activity (attach supporting details).

See attached description

Proposed Start Date: 5/19/2023 **Anticipated Completion Date:** 12/31/2024 **Fee Paid \$** 1,000 / 150.00 RT

CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief, false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. As a condition to the issuance of a permit, the applicant accepts full legal responsibility for all damage, direct or indirect, or whatever nature, and by whomever suffered, arising out of the project described here-in and agrees to indemnify and save harmless the Town of Carmel from suits, actions, damages and costs of every name and description resulting from the said project.


SIGNATURE

5-9-23
DATE



Michael C Bartolotti, County Clerk
 Putnam County Office Building
 40 Gleneida Avenue Room 100
 Carmel, New York 10512



ACS-00000000422751-00000000821274-003

Endorsement Page

Document # 1500374 Drawer # 02 Recorded Date: 02/02/2018
 Document Type: DEED COM OR VACANT Book 2069 Page 432 Recorded Time: 11:30:05 AM
 Document Page Count: 3 Receipt # 1971

PRESENTER:

THE GREAT AMERICAN TITLE AGENCY
 170 HAMILTON AVENUE SUITE207
 WHITE PLAINS, NY 10601

RETURN TO:

MATHEW DUDLEY, ESQ.
 HARRIS BEACH PLLC
 445 HAMILTON AVENUE, SUITE 120
 WHITE PLAINS, NY 10601

PARTIES

GRANTOR

FOREST PARK WATER CO INC

GRANTEE

SUEZ WATER OWEGO NICHOLS INC

FEE DETAILS

Consideration:		\$1,000.00
1500374		
DEED COM OR VACANT	3	35.00
TP-584	1	5.00
CULTURAL EDUCATION		15.00
RP-5217 COMMERCIAL		250.00
RECORD MANAGEMENT		5.00
TRANSFER TAX		4.00
PROCESSING FEE	1	1.00
AMOUNT FOR THIS DOCUMENT:		315.00
RETT #	000001419	

RESERVED FOR CERTIFICATION

THIS DOCUMENT WAS EXAMINED PURSUANT TO S315
 REAL PROPERTY LAW

EXEMPTIONS

RESERVED FOR CLERKS NOTES

Michael C. Bartolotti
 Putnam County Clerk

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT—THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

THIS INDENTURE, made as of the 23rd day of October in the year 2017,

BETWEEN

FOREST PARK WATER CO., INC., having an office address at 17 Park Avenue, Poughkeepsie, New York 12603

party of the first part, and

SUEZ WATER OWEGO-NICHOLS, INC., a New York Corporation with an office address at 360 West Nyack Road, West Nyack, New York 10994

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ten (\$10.00) and 00/100 - - - - - dollars paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

TOWN OF CARMEL
ALL the right, title and interest in and to the water system, including water lines and easements in connection therewith as shown on Map Nos. 902, 902A, 902B, 2298 and 2298A as Filed in the Putnam County Clerk's Office. #902 FILED 2/14/61 #902A FILED 5/13/65 #902B FILED 1/26/68 #2298 + #2298A FILED 3/28/88
TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises;

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

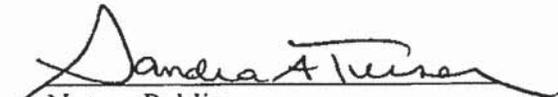
IN PRESENCE OF:

STATE OF NEW YORK

SS:

COUNTY OF DUTCHESS

On October 23rd, 2017 before me, the undersigned a Notary Public in and for said State, personally appeared Stephen E. Diamond known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.


Notary Public

Record and Return:

SANDRA A. TURNER
NOTARY PUBLIC, STATE OF NEW YORK
Qualified in Dutchess County
Commission No.: 01TU6052530
Commission Expires on Dec. 18, 2018

FOR COUNTY USE ONLY

C1. SWIS Code

372000

C2. Date Deed Recorded

2/2/18
Month Day Year

C3. Book

2069

C4. Page

432



New York State Department of Taxation and Finance

Office of Real Property Tax Services

RP- 5217-PDF

Real Property Transfer Report (8/10)

PROPERTY INFORMATION

1. Property Location

Coventry Circle
* STREET NUMBER * STREET NAME
T/Carmel 10512
* CITY OR TOWN * ZIP CODE

2. Buyer Name

Suez Water Owego-Nichols, Inc.
* LAST NAME/COMPANY FIRST NAME
LAST NAME/COMPANY FIRST NAME

3. Tax Billing Address

Indicate where future Tax Bills are to be sent if other than buyer address(at bottom of form)
* LAST NAME/COMPANY FIRST NAME
STREET NUMBER AND NAME CITY OR TOWN STATE ZIP CODE

4. Indicate the number of Assessment Roll parcels transferred on the deed

3 # of Parcels OR Part of a Parcel

(Only If Part of a Parcel) Check as they apply:

- 4A. Planning Board with Subdivision Authority Exists
- 4B. Subdivision Approval was Required for Transfer
- 4C. Parcel Approved for Subdivision with Map Provided

5. Deed Property Size

X * FRONT FEET * DEPTH OR 0.00 * ACRES

6. Seller Name

Forest Park Water Co., Inc.
* LAST NAME/COMPANY FIRST NAME
LAST NAME/COMPANY FIRST NAME

*7. Select the description which most accurately describes the use of the property at the time of sale:

Check the boxes below as they apply:

- 8. Ownership Type is Condominium
- 9. New Construction on a Vacant Land
- 10A. Property Located within an Agricultural District
- 10B. Buyer received a disclosure notice indicating that the property is in an Agricultural District

K. Public Service

SALE INFORMATION

11. Sale Contract Date

03/31/2015

* 12. Date of Sale/Transfer

10/23/2017

*13. Full Sale Price

1,000 .00

(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) Please round to the nearest whole dollar amount.

15. Check one or more of these conditions as applicable to transfer:

- A. Sale Between Relatives or Former Relatives
- B. Sale between Related Companies or Partners in Business.
- C. One of the Buyers is also a Seller
- D. Buyer or Seller is Government Agency or Lending Institution
- E. Deed Type not Warranty or Bargain and Sale (Specify Below)
- F. Sale of Fractional or Less than Fee Interest (Specify Below)
- G. Significant Change in Property Between Taxable Status and Sale Dates
- H. Sale of Business is Included in Sale Price
- I. Other Unusual Factors Affecting Sale Price (Specify Below)
- J. None

*Comment(s) on Condition:

14. Indicate the value of personal property included in the sale

.00

Easement Only

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

16. Year of Assessment Roll from which information taken(YY) 17

*17. Total Assessed Value 816,800

*18. Property Class 822

*19. School District Name Mahopac

*20. Tax Map Identifier(s)/Roll Identifier(s) (If more than four, attach sheet with additional identifier(s))

75.20-2-68

75.20-2-56

75.20-2-52

CERTIFICATION

I Certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein subject me to the provisions of the penal law relative to the making and filing of false instruments.

[Handwritten Signature]

SELLER SIGNATURE

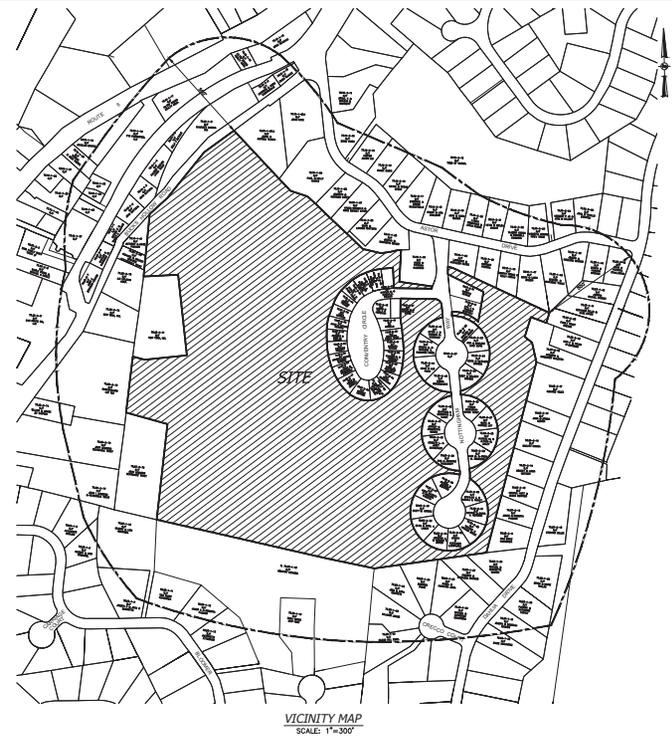
BUYER CONTACT INFORMATION

(Enter information for the buyer. Note: If buyer is LLC, society, association, corporation, joint stock company, estate or entity that is not an individual agent or fiduciary, then a name and contact information of an individual/responsible party who can answer questions regarding the transfer must be entered. Type or print clearly.)

10/23/2017

OWNERS WITHIN 500 FEET:
TOWN OF CARMEL TAX MAP

75.16-1-1	GEORGE P & TRACEY E SALIANO 145 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-1-43	JAMES & CAROLINE COOKE 145 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-25	KENT & COLLEEN BROWNE 21 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-61	ANTHONY & ROSE M. FABIANO 60 BOX 634 MAHO PAC, NY 10541	75.17-1-25	ORANG H & JENNIFER M HETTINGER 112 DANIELA DRIVE MAHO PAC, NY 10541
75.16-1-2	JOHN BATTISTA 137 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-1-42	JACOB & TRACY POSNAK 137 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-26	HYMAN BIRCHBAUM REVOC TRUST 27 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-62	DAVID & CARMEN GARCAU 32 COVENTRY OR MAHO PAC, NY 10541	75.17-1-24	DORIS L BERARDO 116 DANIELA DRIVE MAHO PAC, NY 10541
75.16-1-3	JOHN BATTISTA 133 DANIELA DRIVE MAHO PAC, NY 10541	75.16-1-41	MARY & CAROLYN TURRONE 133 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-27	MARY & PATRICIA LEFF 29 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-63	LINDA CARTLAGE 20 COVENTRY OR MAHO PAC, NY 10541	75.17-1-23	DONALD J. & SALLI A MESSI 122 DANIELA DRIVE MAHO PAC, NY 10541
5.16-1-4	KAREN BRISCO LINDO TRUST 163 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-2-10	NORBERT JOEL 6 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-28	PATRICK W & ALICIA M DALEY 31 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-64	JENNIFER FISHER 18 COVENTRY OR MAHO PAC, NY 10541	75.17-1-22	BRIAN & MARTIN COYNE 126 DANIELA DRIVE MAHO PAC, NY 10541
75.16-1-6	ZOLA V MATEO & MANUEL L GALLIGALI 173 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-2-11	DONAL K & BESSAM M HARNETT 12 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-29	JACK D. & ROBIN M ZENHECK 12 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-65	MICHAEL & ELLEN O'BRIEN 16 COVENTRY OR MAHO PAC, NY 10541	75.17-1-21	PETER & VIORE PELLOUIN 130 DANIELA DRIVE MAHO PAC, NY 10541
75.16-1-8	CHARLES MARINA INC 897 SOUTH LAKE ROAD MAHO PAC, NY 10541	75.16-2-12	TOWN OF CARMEL 60 MALPUN AVENUE MAHO PAC, NY 10541	75.20-2-30	DOUGLAS J. & MAGALI C HOKEY 37 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-66	JOSEPH & DAWN MARE D'AMORE 14 COVENTRY OR MAHO PAC, NY 10541	75.17-1-20	MICHAEL & EDWIGE LAVELLE 134 DANIELA DRIVE MAHO PAC, NY 10541
75.16-1-9	SOTERIOS & RENE KAMBOURIS 130 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-2-13	DIANE KISSH 22 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-31	ARTHUR & MARIA L CERBONE 39 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-69	ROHARD & BRIDGET CERVONE 154 BUCKS HOLLOW RD MAHO PAC, NY 10541		
75.16-1-10	JAMES MCABE PO BOX 472 BALDWIN PLACE, NY 10505	75.16-2-14	HUNTER JANON LLC 22 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-32	TERENCE & KRISTEN MCKEE 43 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-70	J&R HOLDINGS CORP 144 BUCKS HOLLOW MAHO PAC, NY 10541		
75.16-1-15	BROS BEADIAK 485 ROUTE 6 MAHO PAC, NY 10541	75.16-2-15	FRANK GIUNTI 32 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-33	JOSEPH & CAROLANN LACOPARRA 43 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-71	VERSON NEW YORK INC PO BOX 2749 ADDISON, NY 15001		
75.16-1-16	HILLTOP MANOR REALTY CORP. 460 ROUTE 6 MAHO PAC, NY 10541	75.16-2-16	WAYNE & SUSAN SPEAR 36 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-34	JENNIFER A. & ANDREW T. DWYER 44 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-72	VERSON NEW YORK INC PO BOX 2749 ADDISON, NY 15001		
75.16-1-17	HILLTOP MANOR REALTY CORP. 460 ROUTE 6 MAHO PAC, NY 10541	75.20-2-17	DONENICK & LOUISE SACCHITELLO 44 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-35	ELVIS & APRIL J. LUMIC 42 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-73	BUCKSHOLLOW LLC 122 4 BAUERLEIN COURT MAHO PAC, NY 10541		
75.16-1-18	ACHILES DOUBIS 441 ROUTE 6 MAHO PAC, NY 10541	75.20-2-18	FRANK & LISA GUALDINO 50 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-36	SCOTT M. CROHN 40 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-74	WILLIAM & LOUISE DE CASPERI 112 BUCKS HOLLOW ROAD MAHO PAC, NY 10541		
75.16-1-19	F19 PROPERTIES, LLC 44 BLOOMER ROAD MAHO PAC, NY 10541	75.16-2-19	JOHN & LINDA NANNIA 54 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-37	JAMES CULBERT & VERDIANA FANETTA 38 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-75	JOHN LEMMENS REVOCABLE TRUST 100 BUCKS HOLLOW ROAD MAHO PAC, NY 10541		
75.16-1-20	THOMAS & JENE SIMONE 105 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-2-20	LINDA RODRIGUEZ & ERICA RIVERA 58 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-38	ANTHONY & PATRICIA DEMATTEO 36 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-76	JOHN LEMMENS REVOCABLE TRUST 30 ORIST ROAD MAHO PAC, NY 10541		
75.16-1-21	THOMAS & JENE SIMONE 105 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.16-2-21	THOMAS & JENE SIMONE 105 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-39	DAN & ANELISA TAVELINSKY 62 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-77	JOHN LEMMENS REVOCABLE TRUST 100 BUCKS HOLLOW ROAD MAHO PAC, NY 10541		
75.16-1-22	SCOTT WYARD 427 ROUTE 6 MAHO PAC, NY 10541	75.16-2-22	VLADEK VUKICA & BOKANULA KUNCIWA 68 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-40	KENNETH & JANET SCHWESLER 28 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-32	DIANE SCHAVONE 64 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-23	SCOTT WYARD 427 ROUTE 6 MAHO PAC, NY 10541	75.16-2-23	PAQUITA GEORGE IREY TRUST 74 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-41	JEFFREY & ANTONETTA WEBER 26 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-31	JOSEPH & DEBORAH KRINIC 68 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-24	JACQUE REALTY CORP. 427 ROUTE 6 MAHO PAC, NY 10541	75.16-2-24	HERBERT F JR & JUNE M HILERY 78 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-42	MATTHEW & SAMANTHA A. CLARK 24 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-30	PATRICK & CATHERINE TAPPY 74 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-27	MEDRA REAL ESTATE LLC 10 SOUTH WESDON LANE MAHO PAC, NY 10541	75.16-2-25	JOHN & PHILLIP DIMAPOLI 85 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-43	DONNA ROSSMANN 18 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-29	EDWIN & MAREE TRILLAS 80 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-28	BONHUI & ROSALEE FLIP 5 BATTISTA DRIVE MAHO PAC, NY 10541	75.20-2-2	BENIS FAMILY REVOC TRUST #1 SOUTH WESDON LANE MAHO PAC, NY 10541	75.20-2-44	ADAM & LAN PHAM 16 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-28	MICHAEL & GEORGETTE MARION 37 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-29	SANTA & ROBERT FORTINO 7 BATTISTA DRIVE MAHO PAC, NY 10541	75.20-2-3	NICOLE STRIN & MICHAEL & BARLE 888 ROUTE 6 MAHO PAC, NY 10541	75.20-2-45	JOSEPH M. & MARLENE S. CAMARRO-VOGEL 14 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-27	ROHARD & KATHLEEN DRUSSO 71 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-30	THOMAS SIMONE 105 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-5	DAG ROUTE SIX, LLC PO BOX 636 MAHO PAC, NY 10541	75.20-2-46	PETER J. & THERESA M. CARABELL 17 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-26	MICHAEL & CATHERINE SCARABBA 0 OREGO COURT MAHO PAC, NY 10541		
75.16-1-41	ANTHONY & ROSE FABIANO 154 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-7	ITALIAN AMERICAN CLUB INC PO BOX 381 MAHO PAC, NY 10541	75.20-2-47	JEFFREY A. & KATHLEEN A. TUTTLE 9 COVENTRY OR MAHO PAC, NY 10541	75.20-1-24	ZBONEW PINAS PO BOX 332 BALDWIN PLACE, NY 10505		
75.16-1-60.1	JOHN PARK 7 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-8	ADRIANA CERQUERA PO BOX 381 CROTON FALLS, NY 10519	75.20-2-48	KEVIN & HIL & N FAROUKH MAHO PAC, NY 10541	75.20-1-23	JESS 7 DARA BERKOWITS 13 COVENTRY OR MAHO PAC, NY 10541		
75.16-1-60.2	JOSIE & RUFFINA TEJADA 190 BUCKS HOLLOW ROAD MAHO PAC, NY 10541	75.20-2-11	THA MARE BAREFARADA 88 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-49	JILL BONELLO 15 COVENTRY OR MAHO PAC, NY 10541	75.20-1-22	MILANO LONGO 11 OREGO COURT MAHO PAC, NY 10541		
75.16-1-59	PAUL & KELLY HARRIS 15 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-12	JAMES & ROBERTA PAGANO 89 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-50	DRATOSTA FAMILY TRUST 17 COVENTRY OR MAHO PAC, NY 10541	75.20-1-21	CLEAD HILL CORP. 230 GLENROCK AVENUE TOWNSHIP, NY 10755		
75.16-1-58	ERNEST & OLIVER LOPEZ 23 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-13	MICHAEL HART & DIANA SMOYER 10 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-51	BARBARA O'BRIEN 19 COVENTRY OR MAHO PAC, NY 10541	75.20-1-16	SUEZ WATER NEW YORK PO BOX 7970 PHOENIX, AZ 85000		
75.16-1-57	AYANA NIKHLES & ORAN MEYER AYUS 27 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-14	ROBERT & LIANA GERTZER 97 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-52	CHARLES M. & PAMELA E. BLECHER 21 COVENTRY OR MAHO PAC, NY 10541	75.20-1-13	LINDA N VERDE 44 BLOOMER ROAD MAHO PAC, NY 10541		
75.16-1-56	MARK & LINDA WHITERS 31 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-15	EMELTH GARCIA PO BOX 297 MAHO PAC, NY 10541	75.20-2-53	DANIEL & JEAN MARE SHERIDAN 23 COVENTRY OR MAHO PAC, NY 10541	75.20-1-12	STEPHEN A. & MARY BETH WAREL 50 BLOOMER ROAD MAHO PAC, NY 10541		
75.16-1-55	JOSHUA & SAMANTHA MOSER 37 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-16	JOHN & DONNA BENVIN 107 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-54	KATHY SONENBERG 27 COVENTRY OR MAHO PAC, NY 10541	75.20-1-11	MARE A RIZZO 107 BLOOMER ROAD MAHO PAC, NY 10541		
75.16-1-54	JAMES & PATRICIA WAGDMAN 41 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-17	RICHARD VELEZ 117 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-55	NY CONF-LM-CT WEST OREGO ATTC: APT: CASTANO 2 SOUNDER AVE WHITE PLAINS, NY 10606	75.20-1-10	GILBERT & LUIS BARERWIL 69 BLOOMER ROAD MAHO PAC, NY 10541		
75.16-1-50	LARENCE & KATHLEEN KEANE 51 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-18	KENNETH & ROSEMARY WALDRON 13 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-56	MARINE BUFFONE 126 BLOOMER ROAD MAHO PAC, NY 10541	75.20-1-9	JOSEPH G. & JOHN G MANGOTTA 13 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-49	CARLOER PROSSA 55 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-19	HUGH F. & HELEN M BRENNAN 126 BLOOMER ROAD MAHO PAC, NY 10541	75.20-2-57	JAMES & SANDRA MARNELLI 32 DANIELA DRIVE MAHO PAC, NY 10541	75.20-1-8	GILBERT & LUIS BARERWIL 34 COVENTRY OR MAHO PAC, NY 10541		
75.16-1-48	TIMOTHY O'BRIEN & KELLY HORAN 61ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-20	FAMILY TRUST OREGO 129 DANIELA DRIVE MAHO PAC, NY 10541	75.20-2-58	ANTHONY & ROSANNE M. PERUZZI 105 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-1-7	STEPHEN MILLER 100 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-47	LOUIS & LINDA GAUDIO 65 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-21	DEBORAH ALTA DEBORAH VANDANA 13 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-59	GREGORY A. WILLIAMS & MILDRED 28 COVENTRY OR MAHO PAC, NY 10541	75.20-1-6	ANTHONY CHACH & ERN COHEN 100 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-46	JOSEPH & ROSEANN BRUSSO 49 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-22	RICHARD & DEBRA RUSSO 123 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-60	ROBERT ESTATE 17 NOTTINGHAM WAY MAHO PAC, NY 10541	75.17-1-28	MARKET & LEE M DOBENS 108 DANIELA DRIVE MAHO PAC, NY 10541		
75.16-1-45	MICHAEL & MARIANNE VICALE 81 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-23	RON & DARLENE LOVE GAFNI 17 NOTTINGHAM WAY MAHO PAC, NY 10541	75.20-2-61	KATHLEEN BARRETT 26 COVENTRY OR MAHO PAC, NY 10541	75.17-1-26			
75.16-1-44	VINCENT & ANNAMARE VIAGGIO 81 ASTOR DRIVE MAHO PAC, NY 10541	75.20-2-24	KEVIN & CATHLEEN BROWNE 19 NOTTINGHAM WAY MAHO PAC, NY 10541						



LONG EAF PART I

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SEVEREYOS-PLANNERS
232 North Main Street
New City, New York 10966
Tel: (845) 654-4694
Fax: (845) 654-4543
E-mail: info@anzny.com
Web: www.ANZNY.com

PROJECT:
MAHOPAC WELLS 1, 2 & 3

TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

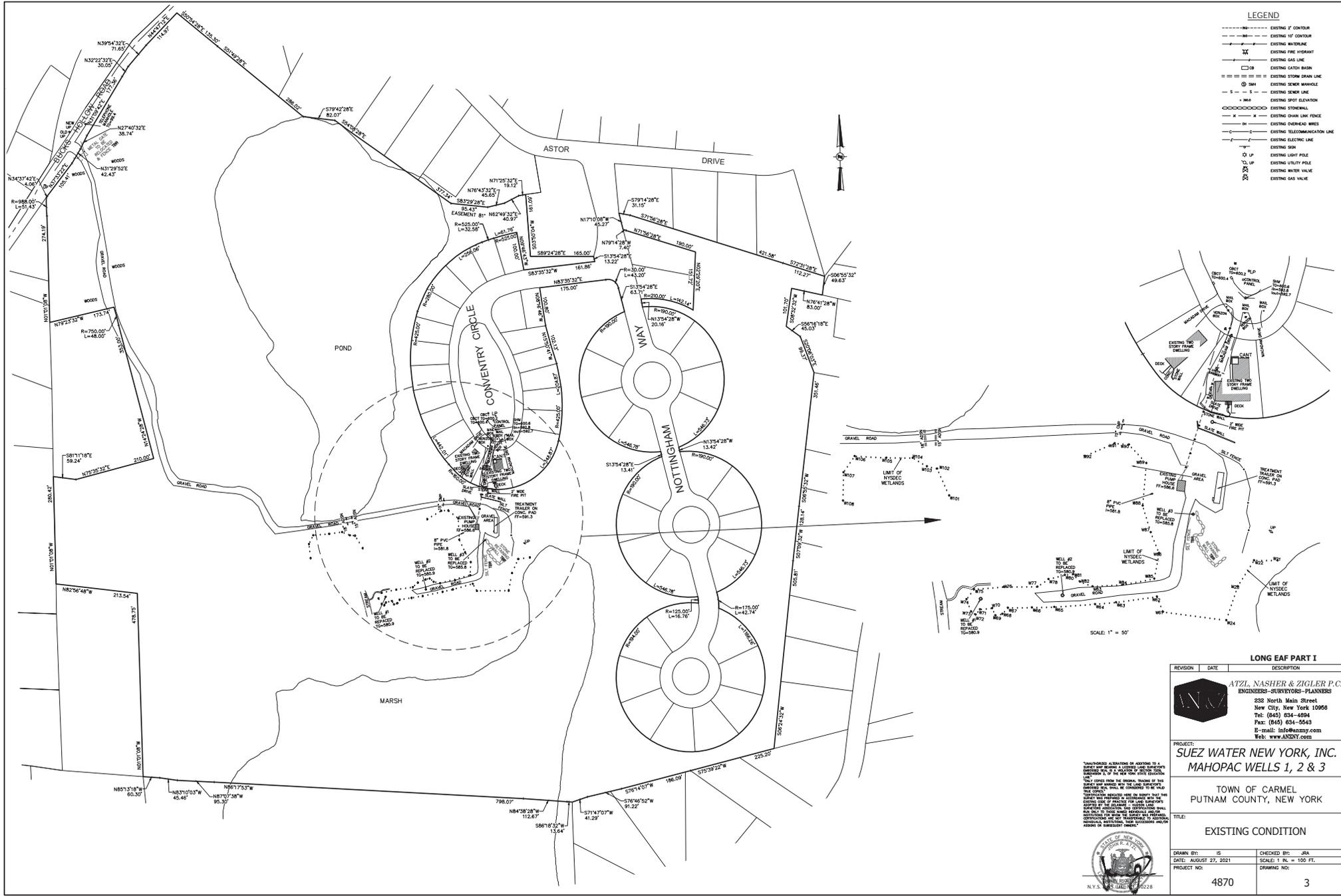
TITLE:
OWNERS WITHIN 500 FT. LIST

DATE: AUGUST 21, 2021
PROJECT NO: 4870
DRAWING NO: 2

DRAWN BY: JSI
CHECKED BY: JRA
SCALE: 1" = 100 FT.

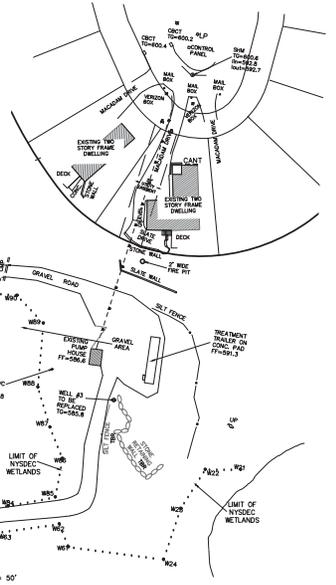
THE EDUCATION LAW OF THE STATE OF NEW YORK PROVIDES THAT PERSONS ALLEGEDLY VIOLATING ANY PROVISIONS OF THIS EDUCATION LAW SHALL BE SUBJECT TO A HEARING BY THE STATE EDUCATION BOARD. THE PROCEEDINGS IN THIS MATTER SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 80(2)(3) OF THE EDUCATION LAW.

STATE OF NEW YORK
OFFICE OF THE STATE EDUCATION BOARD
125 W. STATE ST. 12TH FLOOR
ALBANY, NY 12242-5500
TEL: 518-474-2900
WWW.STATEEDUCATION.NY.GOV



LEGEND

- EXISTING 1' CONTOUR
- EXISTING 10' CONTOUR
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING SATION BRAN LINE
- EXISTING STORM DRAIN LINE
- EXISTING SINKER MANHOLE
- EXISTING SINKER
- EXISTING SPOT ELEVATION
- EXISTING STONE WALL
- EXISTING CHAIN LINK FENCE
- EXISTING OVERHEAD WIRES
- EXISTING TELECOMMUNICATION LINE
- EXISTING SIGN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING WATER VALVE
- EXISTING GAS VALVE



SCALE: 1" = 50'

LONG EAF PART I

REVISION DATE DESCRIPTION

ATZEL, NASH & ZIGLER P.C.
 ENGINEERS-SURVEYORS-PLANNERS
 232 North Main Street
 New City, New York 10956
 Tel: (845) 634-4694
 Fax: (845) 634-5563
 E-mail: info@anzny.com
 Web: www.anzny.com

PROJECT: **SUEZ WATER NEW YORK, INC. MAHOPAC WELLS 1, 2 & 3**

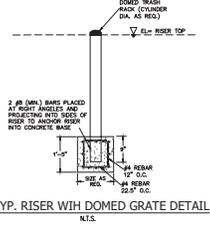
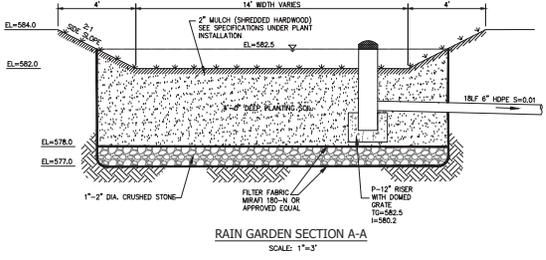
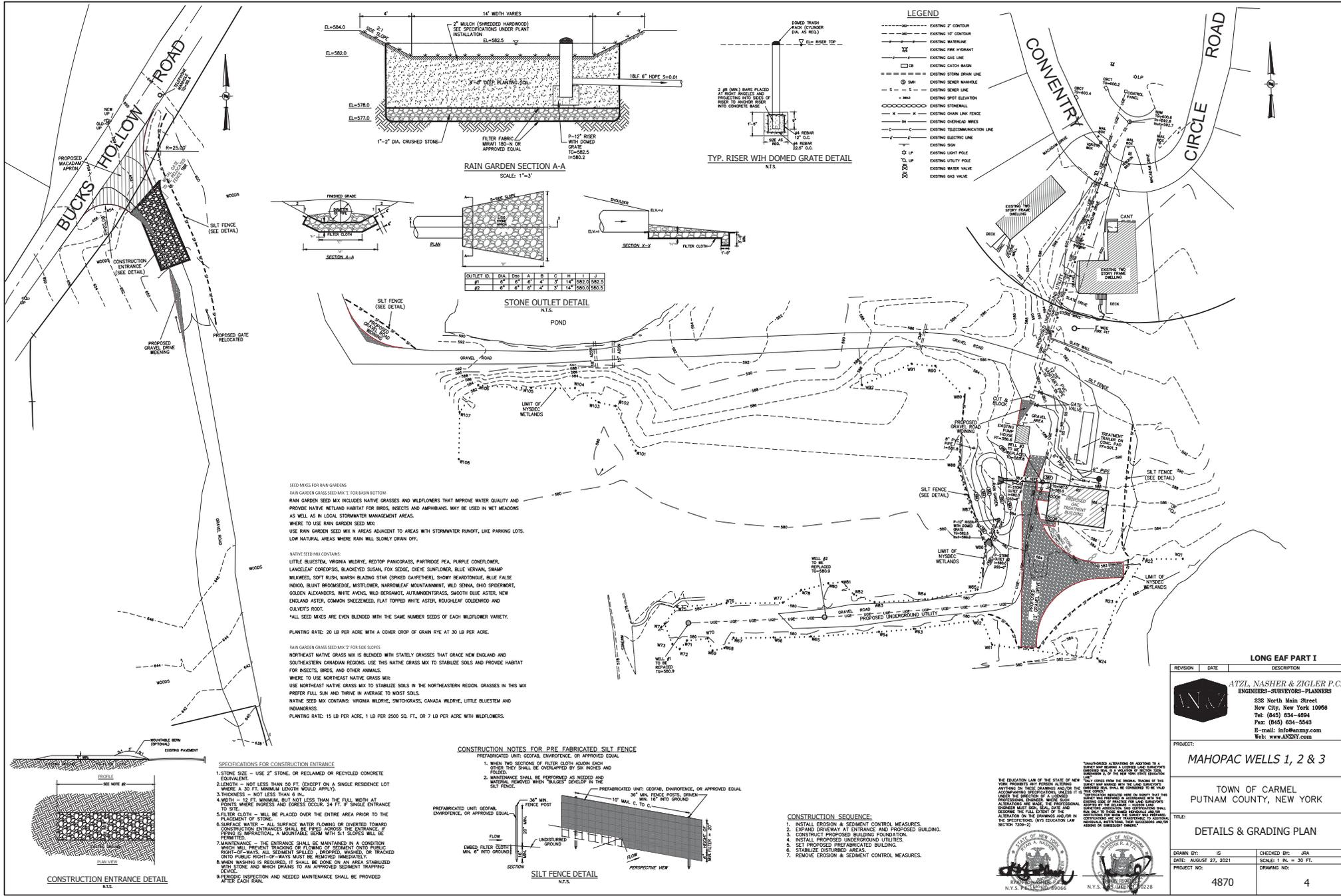
TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: **EXISTING CONDITION**

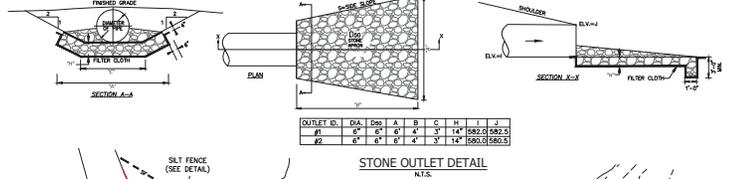
DRAWN BY: IS	CHECKED BY: JSA
DATE: AUGUST 27, 2021	SCALE: 1" = 100 FT.
PROJECT NO: 4870	DRAWING NO: 3



UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY OR ENGINEERING DRAWING MADE BY ANY PERSON OTHER THAN THE ORIGINAL SURVEYOR OR ENGINEER ARE PROHIBITED AND WILL BE CONSIDERED A VIOLATION OF THE PROFESSIONAL ETHICS OF THE SURVEYOR OR ENGINEER.



- LEGEND**
- EXISTING 0' CONTOUR
 - EXISTING 5' CONTOUR
 - EXISTING WATERLINE
 - EXISTING FIRE HYDRANT
 - EXISTING GAS LINE
 - EXISTING CATCH BASIN
 - EXISTING STORM DRAIN LINE
 - EXISTING SENDER MANHOLE
 - EXISTING SENDER LINE
 - EXISTING WET GLENNON
 - EXISTING STORMWALL
 - EXISTING CHAIN LINK FENCE
 - EXISTING OVERHEAD WIRES
 - EXISTING TELECOMMUNICATION LINE
 - EXISTING ELECTRIC LINE
 - EXISTING SIGN
 - EXISTING LIGHT POLE
 - EXISTING UTILITY POLE
 - EXISTING WATER VALVE
 - EXISTING GAS VALVE



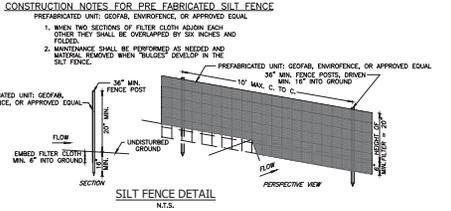
OUTLET ID.	DI.	DO.	A	B	C	H	I	J
1	6"	6"	6"	4"	3"	14"	582.0	582.0
2	6"	6"	4"	3"	14"	582.0	582.0	

SEED MIXES FOR RAIN GARDENS
 RAIN GARDEN GRASS SEED MIX 1: TOP BASIN BOTTOM
 RAIN GARDEN SEED MIX INCLUDES NATIVE GRASSES AND WILDFLOWERS THAT IMPROVE WATER QUALITY AND PROVIDE NATIVE WETLAND HABITAT FOR BIRDS, INSECTS AND AMPHIBIANS. MAY BE USED IN NET MEADOWS AS WELL AS IN LOCAL STORMWATER MANAGEMENT AREAS.
 WHERE TO USE RAIN GARDEN SEED MIX:
 USE RAIN GARDEN SEED MIX IN AREAS ADJACENT TO AREAS WITH STORMWATER RUNOFF, LIKE PARKING LOTS, LOW NATURAL AREAS WHERE RAIN WILL SLOWLY DRAIN OFF.

NATIVE SEED MIX CONTAINS:
 LITTLE BLUESTEM, VIRGINIA WILDRYE, REDTOP PANICGRASS, PARTRIDGE PEA, PURPLE CONEFLOWER, LANCELEAF COREOPSIS, BLACKEYED SUSAN, FOX SEDGE, OX-EYE SUNFLOWER, BLUE VERNAL SWAMP MILKWEED, SOFT RUSH, MARSH BLADING STAR (SPINED MAYTENNEN), SHOWY BERMUDAGRASS, BLUE FALSE INDIGO, BLUNT BROMELIAD, MISTCHER, NARROWLEAF MOUNTAINBAIN, WILD SOWAN, OAK SPOONWOOD, GOLDEN ALEXANDERS, WHITE AVENS, WILD BERGAMOT, AUTUMNBURNINGGRASS, SMOOTH BLUE ASTER, NEW ENGLAND ASTER, COMMON SHEEPWEED, FLAT TOPPED WHITE ASTER, ROUGHLEAF GOLDENROD AND CULVER'S ROOT.
 *ALL SEED MIXES ARE EVEN BLENDED WITH THE SAME NUMBER SEEDS OF EACH WILDFLOWER VARIETY.

PLANTING RATE: 20 LB PER ACRE WITH A COVER CROP OF GRAM RYE AT 30 LB PER ACRE.

RAIN GARDEN GRASS SEED MIX 2 FOR SIDE SLOPES
 NORTHEAST NATIVE GRASS MIX IS BLENDED WITH STABLEY GRASSES THAT GRAZE NEW ENGLAND AND SOUTHEASTERN CANADIAN REGIONS. USE THIS NATIVE GRASS MIX TO STABILIZE SOILS AND PROVIDE HABITAT FOR INSECTS, BIRDS, AND OTHER ANIMALS.
 WHERE TO USE NORTHEAST NATIVE GRASS MIX:
 USE NORTHEAST NATIVE GRASS MIX TO STABILIZE SOILS IN THE NORTHEASTERN REGION. GRASSES IN THIS MIX PREFER FULL SUN AND THRIVE IN AVERAGE TO MOIST SOILS.
 NATIVE SEED MIX CONTAINS: VIRGINIA WILDRYE, SWITCHGRASS, CANADA WILDRYE, LITTLE BLUESTEM AND INDIANGRASS.
 PLANTING RATE: 15 LB PER ACRE, 1 LB PER 2000 SQ. FT., OR 7 LB PER ACRE WITH WILDFLOWERS.



- SPECIFICATIONS FOR CONSTRUCTION ENTRANCE**
- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH - NOT LESS THAN 50 FT. (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FT. MINIMUM LENGTH WOULD APPLY).
 - THICKNESS - NOT LESS THAN 6" IN.
 - WIDTH - 12" FT. MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR. 24" FT. SINGLE ENTRANCE POINTS.
 - FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE FLOWED ACROSS THE ENTRANCE BY PIPING TO IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT DURING PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT ACCUMULATED DURING TRACKING ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
 - WHEN BRUSHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

- CONSTRUCTION SEQUENCE:**
- INSTALL EROSION & SEDIMENT CONTROL MEASURES.
 - EXPAND DRIVEWAY AT ENTRANCE AND PROPOSED BUILDING.
 - CONSTRUCT PROPOSED BUILDING FOUNDATION.
 - INSTALL PROPOSED UNDERGROUND UTILITIES.
 - SET PROPOSED PREFABRICATED BUILDING.
 - STABILIZE DISTURBED AREAS.
 - REMOVE EROSION & SEDIMENT CONTROL MEASURES.

LONG EAF PART I

ATZL, NASHER & ZIGLER P.C.
 ENGINEERS-SEVERSIORS-PLANNERS
 232 North Main Street
 New City, New York 10956
 Tel: (845) 654-4894
 Fax: (845) 654-5543
 E-mail: info@atzny.com
 Web: www.ANZNY.com

PROJECT: MAHOPAC WELLS 1, 2 & 3

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

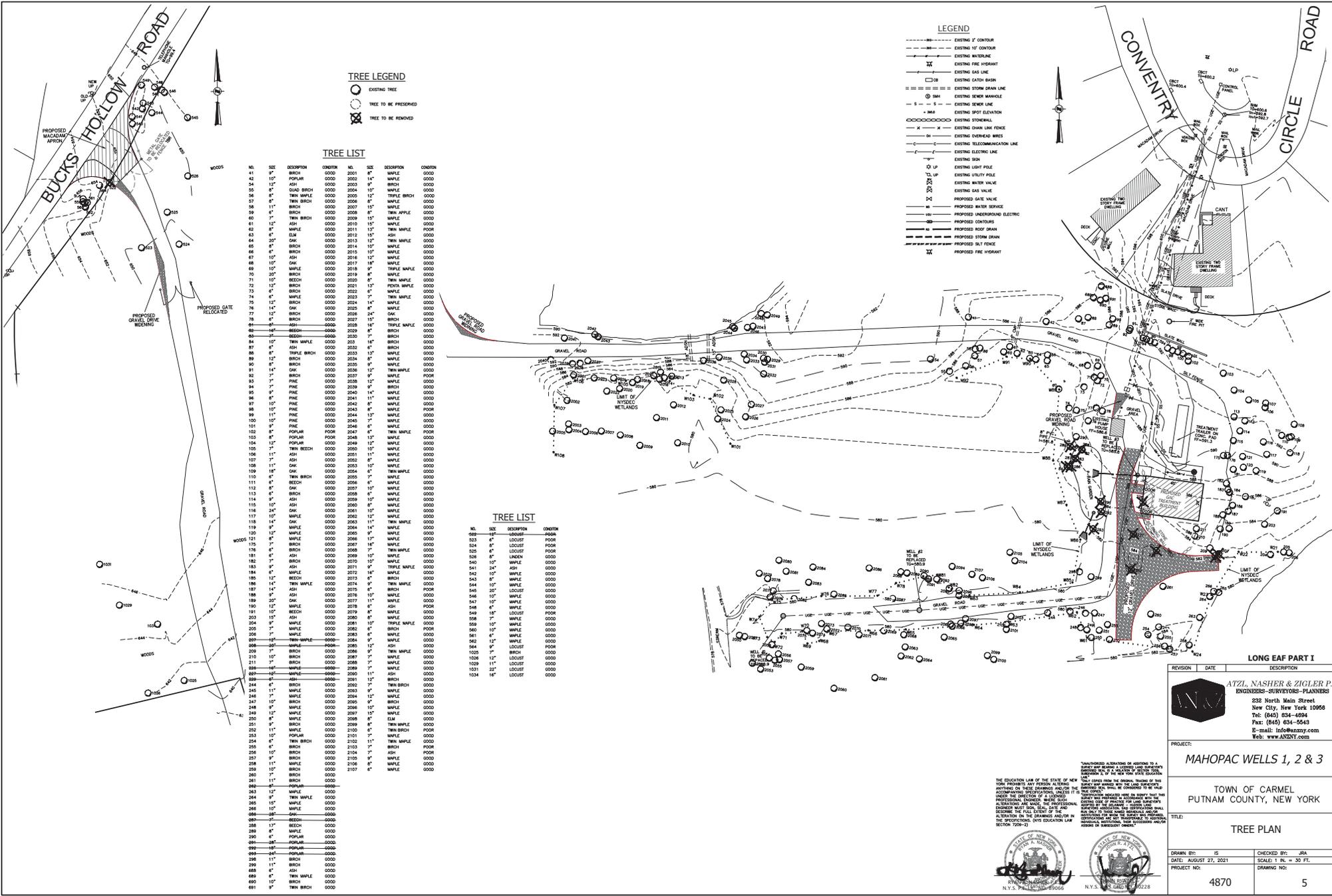
TITLE: DETAILS & GRADING PLAN

DATE: AUGUST 27, 2021
 SCALE: 1" = 30 FT.

DRAWN BY: IS
 CHECKED BY: JRA

PROJECT NO: 4870
 DRAWING NO: 4





TREE LEGEND

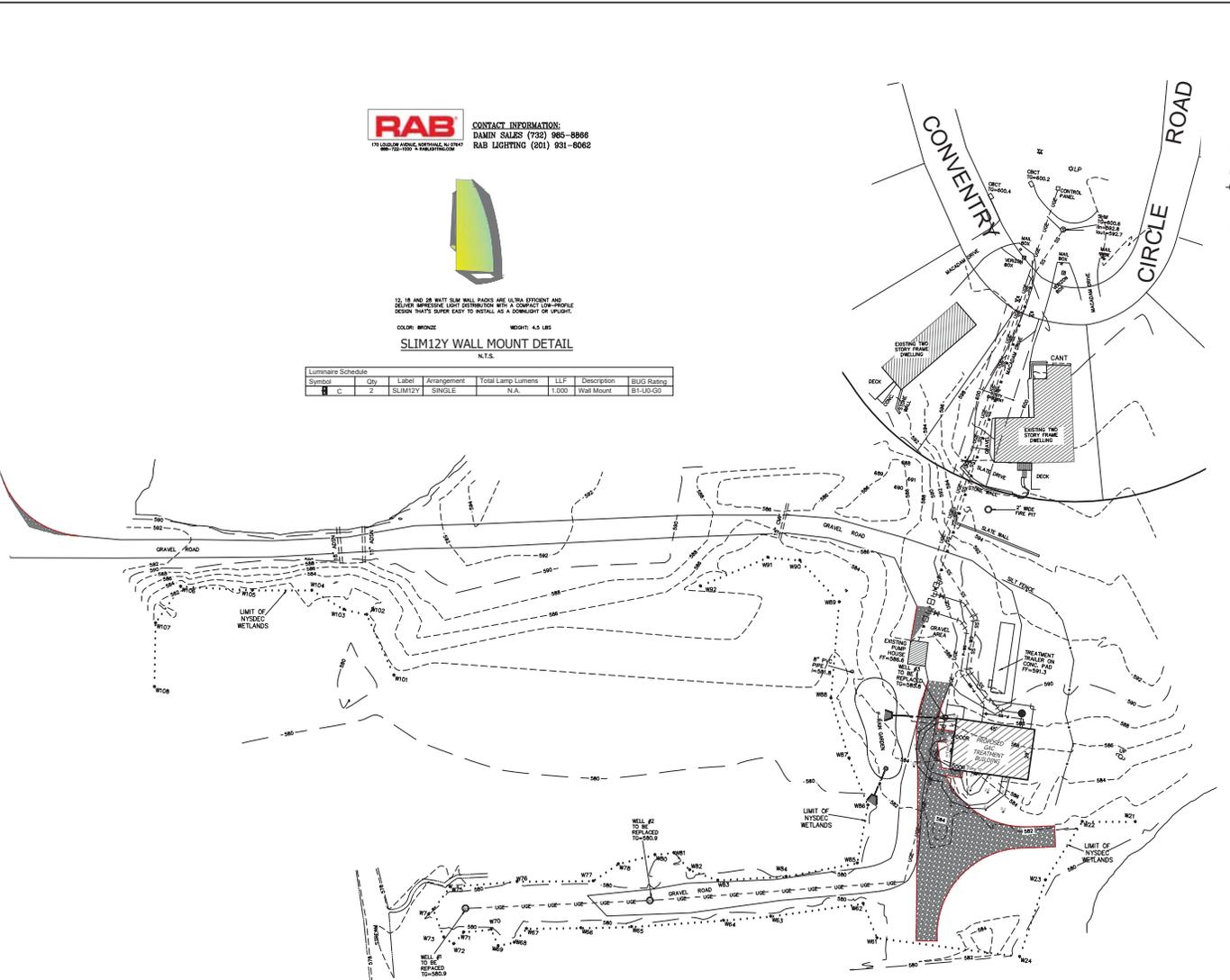
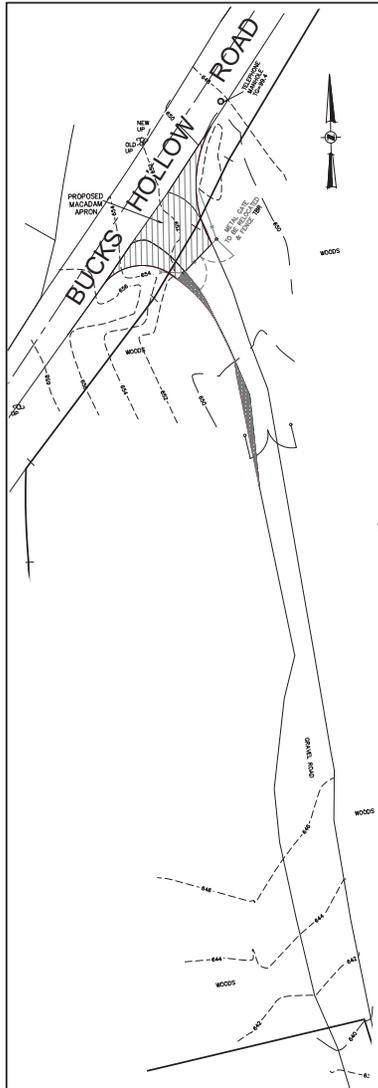
○ EXISTING TREE

○ TREE TO BE PRESERVED

⊗ TREE TO BE REMOVED

TREE LIST

NO.	SIZE	DESCRIPTION	CONTRN	NO.	SIZE	DESCRIPTION	CONTRN
41	8"	BIRCH	0000	2001	8"	MAPLE	GOOD
42	10"	POPULAR	0000	2002	14"	MAPLE	GOOD
43	12"	ASH	0000	2003	8"	BIRCH	GOOD
44	8"	QUAD BRCH	0000	2004	10"	MAPLE	GOOD
45	8"	TWIN MAPLE	0000	2005	12"	TRIPLE BIRCH	GOOD
46	8"	TWIN BRCH	0000	2006	8"	MAPLE	GOOD
47	8"	ASH	0000	2007	15"	MAPLE	GOOD
48	11"	BIRCH	0000	2008	8"	TWIN MAPLE	GOOD
49	8"	BIRCH	0000	2009	15"	MAPLE	GOOD
50	7"	TWIN BRCH	0000	2010	15"	MAPLE	GOOD
51	12"	ASH	0000	2011	15"	TWIN MAPLE	POOR
52	8"	ELM	0000	2012	15"	ASH	GOOD
53	8"	ELM	0000	2013	10"	MAPLE	GOOD
54	20"	OAK	0000	2014	12"	TWIN MAPLE	GOOD
55	8"	BIRCH	0000	2015	10"	MAPLE	GOOD
56	8"	BIRCH	0000	2016	12"	MAPLE	GOOD
57	10"	ASH	0000	2017	18"	MAPLE	GOOD
58	10"	OAK	0000	2018	10"	TRIPLE MAPLE	GOOD
59	10"	BIRCH	0000	2019	8"	MAPLE	GOOD
60	10"	BIRCH	0000	2020	8"	TWIN MAPLE	GOOD
61	12"	BIRCH	0000	2021	13"	PENTA MAPLE	GOOD
62	8"	BIRCH	0000	2022	8"	MAPLE	GOOD
63	8"	MAPLE	0000	2023	7"	TWIN MAPLE	GOOD
64	10"	MAPLE	0000	2024	14"	MAPLE	GOOD
65	14"	OAK	0000	2025	8"	MAPLE	GOOD
66	12"	BIRCH	0000	2026	24"	OAK	GOOD
67	8"	BIRCH	0000	2027	10"	BIRCH	GOOD
68	8"	ASH	0000	2028	16"	TRIPLE MAPLE	GOOD
69	10"	BIRCH	0000	2029	14"	BIRCH	GOOD
70	10"	BIRCH	0000	2030	14"	BIRCH	GOOD
71	10"	BIRCH	0000	2031	14"	BIRCH	GOOD
72	12"	BIRCH	0000	2032	8"	BIRCH	GOOD
73	8"	BIRCH	0000	2033	12"	MAPLE	GOOD
74	8"	MAPLE	0000	2034	8"	MAPLE	GOOD
75	12"	OAK	0000	2035	12"	MAPLE	GOOD
76	14"	OAK	0000	2036	12"	MAPLE	GOOD
77	12"	BIRCH	0000	2037	24"	OAK	GOOD
78	8"	BIRCH	0000	2038	10"	BIRCH	GOOD
79	8"	ASH	0000	2039	16"	TRIPLE MAPLE	GOOD
80	10"	BIRCH	0000	2040	14"	BIRCH	GOOD
81	10"	TWIN MAPLE	0000	2041	12"	MAPLE	GOOD
82	8"	ASH	0000	2042	12"	MAPLE	GOOD
83	12"	BIRCH	0000	2043	8"	MAPLE	GOOD
84	10"	BIRCH	0000	2044	12"	MAPLE	GOOD
85	14"	OAK	0000	2045	12"	TWIN MAPLE	GOOD
86	10"	BIRCH	0000	2046	12"	MAPLE	POOR
87	10"	BIRCH	0000	2047	12"	MAPLE	POOR
88	10"	FINE	0000	2048	12"	MAPLE	GOOD
89	8"	FINE	0000	2049	12"	MAPLE	GOOD
90	8"	FINE	0000	2050	12"	MAPLE	GOOD
91	14"	OAK	0000	2051	12"	TWIN MAPLE	GOOD
92	10"	FINE	0000	2052	12"	MAPLE	GOOD
93	8"	FINE	0000	2053	12"	MAPLE	GOOD
94	8"	FINE	0000	2054	8"	BIRCH	GOOD
95	8"	FINE	0000	2055	12"	MAPLE	GOOD
96	8"	FINE	0000	2056	11"	MAPLE	GOOD
97	8"	FINE	0000	2057	12"	MAPLE	GOOD
98	10"	FINE	0000	2058	8"	MAPLE	POOR
99	11"	FINE	0000	2059	8"	MAPLE	POOR
100	10"	FINE	0000	2060	7"	MAPLE	POOR
101	10"	FINE	0000	2061	12"	MAPLE	POOR
102	8"	POPULAR	0000	2062	8"	TWIN MAPLE	POOR
103	8"	POPULAR	0000	2063	12"	MAPLE	POOR
104	12"	POPULAR	0000	2064	12"	MAPLE	GOOD
105	10"	TWIN BRCH	0000	2065	10"	MAPLE	GOOD
106	11"	ASH	0000	2066	11"	MAPLE	GOOD
107	10"	ASH	0000	2067	10"	MAPLE	GOOD
108	11"	OAK	0000	2068	10"	MAPLE	GOOD
109	10"	OAK	0000	2069	8"	TWIN MAPLE	GOOD
110	8"	TWIN BRCH	0000	2070	7"	MAPLE	GOOD
111	8"	BIRCH	0000	2071	10"	MAPLE	GOOD
112	8"	OAK	0000	2072	10"	MAPLE	GOOD
113	8"	BIRCH	0000	2073	8"	MAPLE	GOOD
114	8"	BIRCH	0000	2074	10"	MAPLE	GOOD
115	10"	ASH	0000	2075	8"	MAPLE	GOOD
116	10"	OAK	0000	2076	10"	MAPLE	GOOD
117	10"	MAPLE	0000	2077	12"	MAPLE	GOOD
118	14"	OAK	0000	2078	11"	TWIN MAPLE	GOOD
119	9"	MAPLE	0000	2079	14"	MAPLE	GOOD
120	8"	MAPLE	0000	2080	8"	MAPLE	GOOD
121	8"	MAPLE	0000	2081	16"	MAPLE	GOOD
122	10"	ASH	0000	2082	10"	MAPLE	GOOD
123	8"	BIRCH	0000	2083	7"	TWIN MAPLE	GOOD
124	8"	BIRCH	0000	2084	7"	TWIN MAPLE	GOOD
125	8"	BIRCH	0000	2085	7"	TWIN MAPLE	GOOD
126	8"	BIRCH	0000	2086	7"	TWIN MAPLE	GOOD
127	8"	BIRCH	0000	2087	7"	TWIN MAPLE	GOOD
128	8"	BIRCH	0000	2088	7"	TWIN MAPLE	GOOD
129	8"	BIRCH	0000	2089	7"	TWIN MAPLE	GOOD
130	8"	BIRCH	0000	2090	7"	TWIN MAPLE	GOOD
131	8"	BIRCH	0000	2091	7"	TWIN MAPLE	GOOD
132	8"	BIRCH	0000	2092	7"	TWIN MAPLE	GOOD
133	8"	BIRCH	0000	2093	7"	TWIN MAPLE	GOOD
134	8"	BIRCH	0000	2094	7"	TWIN MAPLE	GOOD
135	8"	BIRCH	0000	2095	7"	TWIN MAPLE	GOOD
136	8"	BIRCH	0000	2096	7"	TWIN MAPLE	GOOD
137	8"	BIRCH	0000	2097	7"	TWIN MAPLE	GOOD
138	8"	BIRCH	0000	2098	7"	TWIN MAPLE	GOOD
139	8"	BIRCH	0000	2099	7"	TWIN MAPLE	GOOD
140	8"	BIRCH	0000	2100	7"	TWIN MAPLE	GOOD
141	8"	BIRCH	0000	2101	7"	TWIN MAPLE	GOOD
142	8"	BIRCH	0000	2102	7"	TWIN MAPLE	GOOD
143	8"	BIRCH	0000	2103	7"	TWIN MAPLE	GOOD
144	8"	BIRCH	0000	2104	7"	TWIN MAPLE	GOOD
145	8"	BIRCH	0000	2105	7"	TWIN MAPLE	GOOD
146	8"	BIRCH	0000	2106	7"	TWIN MAPLE	GOOD
147	8"	BIRCH	0000	2107	7"	TWIN MAPLE	GOOD
148	8"	BIRCH	0000	2108	7"	TWIN MAPLE	GOOD
149	8"	BIRCH	0000	2109	7"	TWIN MAPLE	GOOD
150	8"	BIRCH	0000	2110	7"	TWIN MAPLE	GOOD
151	8"	BIRCH	0000	2111	7"	TWIN MAPLE	GOOD
152	8"	BIRCH	0000	2112	7"	TWIN MAPLE	GOOD
153	8"	BIRCH	0000	2113	7"	TWIN MAPLE	GOOD
154	8"	BIRCH	0000	2114	7"	TWIN MAPLE	GOOD
155	8"	BIRCH	0000	2115	7"	TWIN MAPLE	GOOD
156	8"	BIRCH	0000	2116	7"	TWIN MAPLE	GOOD
157	8"	BIRCH	0000	2117	7"	TWIN MAPLE	GOOD
158	8"	BIRCH	0000	2118	7"	TWIN MAPLE	GOOD
159	8"	BIRCH	0000	2119	7"	TWIN MAPLE	GOOD
160	8"	BIRCH	0000	2120	7"	TWIN MAPLE	GOOD
161	8"	BIRCH	0000	2121	7"	TWIN MAPLE	GOOD
162	8"	BIRCH	0000	2122	7"	TWIN MAPLE	GOOD
163	8"	BIRCH	0000	2123	7"	TWIN MAPLE	GOOD
164	8"	BIRCH	0000	2124	7"	TWIN MAPLE	GOOD
165	8"	BIRCH	0000	2125	7"	TWIN MAPLE	GOOD
166	8"	BIRCH	0000	2126	7"	TWIN MAPLE	GOOD
167	8"	BIRCH	0000	2127	7"	TWIN MAPLE	GOOD
168	8"	BIRCH	0000	2128	7"	TWIN MAPLE	GOOD
169	8"	BIRCH	0000	2129	7"	TWIN MAPLE	GOOD
170	8"	BIRCH	0000	2130	7"	TWIN MAPLE	GOOD
171	8"	BIRCH	0000	2131	7"	TWIN MAPLE	GOOD
172	8"	BIRCH	0000	2132	7"	TWIN MAPLE	GOOD
173	8"	BIRCH	0000	2133	7"	TWIN MAPLE	GOOD
174	8"	BIRCH	0000	2134	7"	TWIN MAPLE	GOOD
175	8"	BIRCH	0000	2135	7"	TWIN MAPLE	GOOD
176	8"	BIRCH	0000	2136	7"	TWIN MAPLE	GOOD
177	8"	BIRCH	0000	2137	7"	TWIN MAPLE	GOOD
178	8"	BIRCH	0000	2138	7"	TWIN MAPLE	GOOD
179	8"	BIRCH	0000	2139	7"	TWIN MAPLE	GOOD
180	8"	BIRCH	0000	2140	7"	TWIN MAPLE	GOOD
181	8"	BIRCH	0000	2141	7"	TWIN MAPLE	GOOD
182	8"	BIRCH	0000	2142	7"	TWIN MAPLE	GOOD
183	8"	BIRCH	0000	2143	7"	TWIN MAPLE	GOOD
184	8"	BIRCH	0000	2144	7"	TWIN MAPLE	GOOD
185	8"	BIRCH	0000	2145	7"	TWIN MAPLE	GOOD
186	8"	BIRCH	0000	2146	7"	TWIN MAPLE	GOOD
187	8"	BIRCH	0000	2147	7"	TWIN MAPLE	GOOD
188	8"	BIRCH	0000	2148	7"	TWIN MAPLE	GOOD
189	8"	BIRCH	0000	2149	7"	TWIN MAPLE	GOOD
190	8"	BIRCH	0000	2150	7"	TWIN MAPLE	GOOD
191	8"	BIRCH	0000	2151	7"	TWIN MAPLE	GOOD
192	8"	BIRCH	0000	2152	7"	TWIN MAPLE	GOOD
193	8"	BIRCH	0000	2153	7"	TWIN MAPLE	GOOD
194	8"	BIRCH	0000	2154	7"	TWIN MAPLE	GOOD
195	8"	BIRCH	0000	2155	7"	TWIN MAPLE	GOOD
196	8"	BIRCH	0000	2156	7"	TWIN MAPLE	GOOD
197	8"	BIRCH	0000	2157	7"	TWIN MAPLE	GOOD
198	8"	BIRCH	0000	2158	7"	TWIN MAPLE	GOOD
199	8"	BIRCH	0000	2159	7"	TWIN MAPLE	GOOD
200	8"	BIRCH	0000	2160	7"	TWIN MAPLE	GOOD
201	8"	BIRCH	0000	2161	7"	TWIN MAPLE	GOOD
202	8"	BIRCH	0000	2162	7"	TWIN MAPLE	GOOD
203	8"	BIRCH	0000	2163	7"	TWIN MAPLE	GOOD
204	8"	BIRCH	0000	2164	7"	TWIN MAPLE	GOOD
205	8"	BIRCH	0000	2165	7"	TWIN MAPLE	GOOD
206	8"	BIRCH	0000	2166	7"	TWIN MAPLE	GOOD
207	8"	BIRCH	0000	2167	7"	TWIN MAPLE	GOOD
208	8"	BIRCH	0000	2168	7"	TWIN MAPLE	GOOD
209	8"	BIRCH	0000	2169	7"	TWIN MAPLE	GOOD
210	8"	BIRCH	0000	2170	7"	TWIN MAPLE	GOOD
211	8"	BIRCH	0000	2171	7"	TWIN MAPLE	GOOD
212	8"	BIRCH	0000	2172	7"	TWIN MAPLE	GOOD
213	8"	BIRCH	0000	2173	7"	TWIN MAPLE	GOOD
214	8"	BIRCH	0000	2174	7"	TWIN MAPLE	GOOD
215	8"	BIRCH	0000	2175	7"	TWIN MAPLE	GOOD
216	8"	BIRCH	0000	2176	7"	TWIN MAPLE	GOOD
217	8"	BIRCH	0000	2177	7"	TWIN MAPLE	GOOD
218	8"	BIRCH	0000	2178	7"	TWIN MAPLE	GOOD
219	8"	BIRCH	0000	2179	7"	TWIN MAPLE	GOOD
220	8"	BIRCH	0000	2180	7"	TWIN MAPLE	GOOD
221	8"	BIRCH	0000	2181	7"	TWIN MAPLE	GOOD
222	8"	BIRCH	0000	2182	7"	TWIN MAPLE	GOOD
223	8"	BIRCH	0000	2183	7"	TWIN MAPLE	GOOD
224	8"	BIRCH	0000	2184	7"	TWIN MAPLE	GOOD
225	8"	BIRCH	0000	2185	7"	TWIN MAPLE	GOOD
226	8"	BIRCH	0000	2186	7"	TWIN MAPLE	GOOD
227	8"	BIRCH	0000	2187	7"	TWIN MAPLE	GOOD
228	8"	BIRCH	0000	2188	7"	TWIN MAPLE	GOOD
229	8"	BIRCH	0000	2189	7"	TWIN MAPLE</	



RAB CONTACT INFORMATION:
 DANIEL SALES (782) 965-8806
 RAB LIGHTING (201) 931-6062



12, 18 AND 28 WATT SLIM WELL PACKS ARE ULTRA EFFICIENT AND
 DELIVER IMPROVED LIGHT DISTRIBUTION WITH A COMPACT, SIM-PANEL
 DESIGN THAT'S SUPER EASY TO INSTALL AS A DOWNLIGHT OR UPLIGHT.
 COLOR: BRONZE WEIGHT: 4.5 LBS
 N.T.S.

SLIM12Y WALL MOUNT DETAIL
 N.T.S.

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	BLUG Rating
C	2	SLIM12Y	SINGLE	N/A	1.000	Wall Mount	B1-UDG3

- LEGEND**
- EXISTING 1' CONTOUR
 - EXISTING 2' CONTOUR
 - EXISTING WATERLINE
 - EXISTING GAS LINE
 - EXISTING FIRE HYDRANT
 - EXISTING STORM DRAIN LINE
 - EXISTING CATCH BASIN
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER LINE
 - EXISTING SPOT ELEVATION
 - EXISTING STONEWALL
 - EXISTING CHAIN LINK FENCE
 - EXISTING OVERHEAD WIRE
 - EXISTING TELECOMMUNICATION LINE
 - EXISTING ELECTRIC LINE
 - EXISTING SON
 - EXISTING LIGHT POLE
 - EXISTING UTILITY POLE
 - EXISTING WATER VALVE
 - EXISTING GAS VALVE
 - PROPOSED GAS VALVE
 - PROPOSED WATER SERVICE
 - PROPOSED UNDERGROUND ELECTRIC
 - PROPOSED CONTOUR
 - PROPOSED ROOF DRAIN
 - PROPOSED STORM DRAIN
 - PROPOSED SILT FENCE
 - PROPOSED FIRE HYDRANT

LONG EAF PART I

ATZL, NASHER & ZIGLER P.C.
 ENGINEERS-SEVEREYOS-PLANNERS
 232 North Main Street
 New City, New York 10956
 Tel: (845) 634-4694
 Fax: (845) 634-6543
 E-mail: info@anzny.com
 Web: www.ANZNY.com

PROJECT: **MAHOPAC WELLS 1, 2 & 3**

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: **LIGHTING PLAN**

REVISION	DATE	DESCRIPTION

DRAWN BY: IS CHECKED BY: JSA
 DATE: AUGUST 27, 2021 SCALE: 1" = 20' FT.
 PROJECT NO: 4870 DRAWING NO: 6

THE EDUCATION LAW OF THE STATE OF NEW YORK PROVIDES THAT ANY PERSON ALLEGING A VIOLATION OF ANY PROVISION OF THIS CHAPTER OR ANY OTHER PROVISION OF THIS CHAPTER SHALL BE SUBJECT TO A HEARING BY THE STATE EDUCATION BOARD OR THE STATE EDUCATION OFFICE. THE BOARD OR OFFICE SHALL DETERMINE THE FULL EXTENT OF THE VIOLATION, THE DAMAGES AND/OR THE APPLICABLE PENALTY (NYSE EDUCATION LAW SECTION 7004-2)

STATE OF NEW YORK
 DANIEL A. MANDRO
 COUNTY CLERK
 N.Y.S. PUBLIC OFFICER 63064

STATE OF NEW YORK
 ROBERT R. APOSTOLISI
 COUNTY CLERK
 N.Y.S. PUBLIC OFFICER 63028

Project Description

General Project Information

Applicant: Veolia Water New York (Formerly known as SUEZ Water New York)

Project: PFAS Compliance Project H – Mahopac Well

Location: Town of Carmel
Putnam County, New York

Consultant: Gannett Fleming, Inc.
207 Senate Avenue
Camp Hill, PA 17011

Introduction

Veolia is proposing the construction of upgrades at their existing Mahopac well site. The proposed study area (41° 21' 36.380" N, 73° 44' 24.186" W) is located in the Town of Carmel, Putnam County, New York. The project study area for this project encompassed the entire Veolia property. During delineation efforts an additional 300-foot buffer was reviewed around the project study area and is referred to in the permit application as the action area. Refer to the Topographic Location Map and Aerial Layout Map for the location and project limits located in **Section A**.

Project Purpose and Need

The State of New York has adopted a new drinking water standard that sets a Maximum Contaminant Level (MCL) of 10 parts per trillion (ppt) for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) in drinking water. Some PFAS do not breakdown easily and persist for a long time in the environment, especially in water. The concern of PFAS chemicals having toxic effects on public health has resulted in new regulations for the New York State Drinking Water Standard.

In order to comply with these new MCLs, Veolia plans to construct a treatment facility at the existing Mahopac Well Site. The purpose of the ECB submittal is to construct the electrical upgrade required to run a temporary system, as required by the Department of Health (DOH). The DOH required that the system have PFAS treatment in service by August 2023. This electrical upgrade will also be used for the permanent system when that is constructed.

Necessary upgrades were identified based on the water quality sampling results. The Mahopac water quality results also showed elevated levels of iron and manganese which will also be treated with new facility. The site upgrades include upsizing of the existing well pumps and installation

of a treatment building with a greensand iron and manganese removal system as well as the installation of a granular activated carbon (GAC) treatment system. The planned upgrades will not increase the firm capacity of the wells.

Architectural, civil, electrical, structural, HVAC and plumbing upgrades will be implemented for the permanent facility to accommodate the new treatment system at the existing location. The permanent facility will be a separate and future submittal to the ECB.

Project Description Details

A three-phase electric line is needed to be installed in this Phase of the Mahopac PFAS construction project. A conduit is proposed to be installed from Buckshollow Road to the proposed PFAS facility following the Mahopac access road.

Project Area Description

The proposed PFAS upgrades will be installed within the existing Veolia property located on the east side of Buckshollow Road in the Town of Carmel, New York. The overall proposed project study area is approximately 2.3 acres and is located immediately south of Bloomer Pond. The action area surrounding the project study area is approximately 37 acres. The project study area and action area consist of predominantly forested area, gravel access roads, existing well infrastructure, residential properties, and local roads. The current proposed project study area for the installation of the electric line with this permit is 0.32 acres.

Water resources within or adjacent to the project area include Plum Brook and Bloomer Pond as identified by NYSDEC freshwater mapping, National Wetland Inventory mapping, and U.S. Geological Survey topographical mapping. Additional water resources were identified during field investigations.

Project Impacts

One parcel was impacted by the Veolia PFAS project. Project design will impact NYSDEC and USACE regulated features and the intent of this package is to obtain approvals from both agencies. Refer to the Wetland Delineation Report provided in **Section B** for more information regarding these resources.

The proposed project limit of disturbance overlaps NYSDEC regulated freshwater wetlands, regulated freshwater wetland buffers and USACE regulated wetlands. As per the site visit conducted on June 7, 2021, NYSDEC has accepted the USACE regulated wetland boundary as the NYSDEC freshwater wetland boundary. Therefore, the USACE regulated wetland boundary and NYSDEC freshwater wetland boundary coincide with one another.

There are temporary impacts that are associated with the construction electrical conduit. Reclamation to the portion of the wetlands with temporary impacts will take place as soon as construction is complete.

Please see **Section C** for a typical diagram of construction.

Regulated Activities

USACE Impacts

There are no USACE impacts to Waters of the U.S. during the installation of the electrical conduit.

NYSDEC Impacts

NYSDEC impacts have been separated into two (2) categories; NYSDEC Freshwater Wetland Impacts and NYSDEC Freshwater Wetland Adjacent Area Impacts. NYSDEC Freshwater Wetland Impacts account for all areas within the regulated NYSDEC Freshwater Wetland Boundary, which coincides with the USACE regulated wetland boundary. The NYSDEC Freshwater Wetland Adjacent Area Impacts account for impacts that occur within the 100' Adjacent Area surrounding NYSDEC regulated wetlands.

Impacts that will occur within the NYSDEC Freshwater Wetlands and adjacent areas were previously permitted and approved under Article 24 permit identification 3-3720-00473/00001 and 3-3720-00473/00002, respectively. No new impacts will occur during the installation of the electrical conduit. Information provided below is solely informational for the ECB permit approvals and is wholly accounted for within previous approved permits.

NYSDEC Freshwater Wetland Impacts

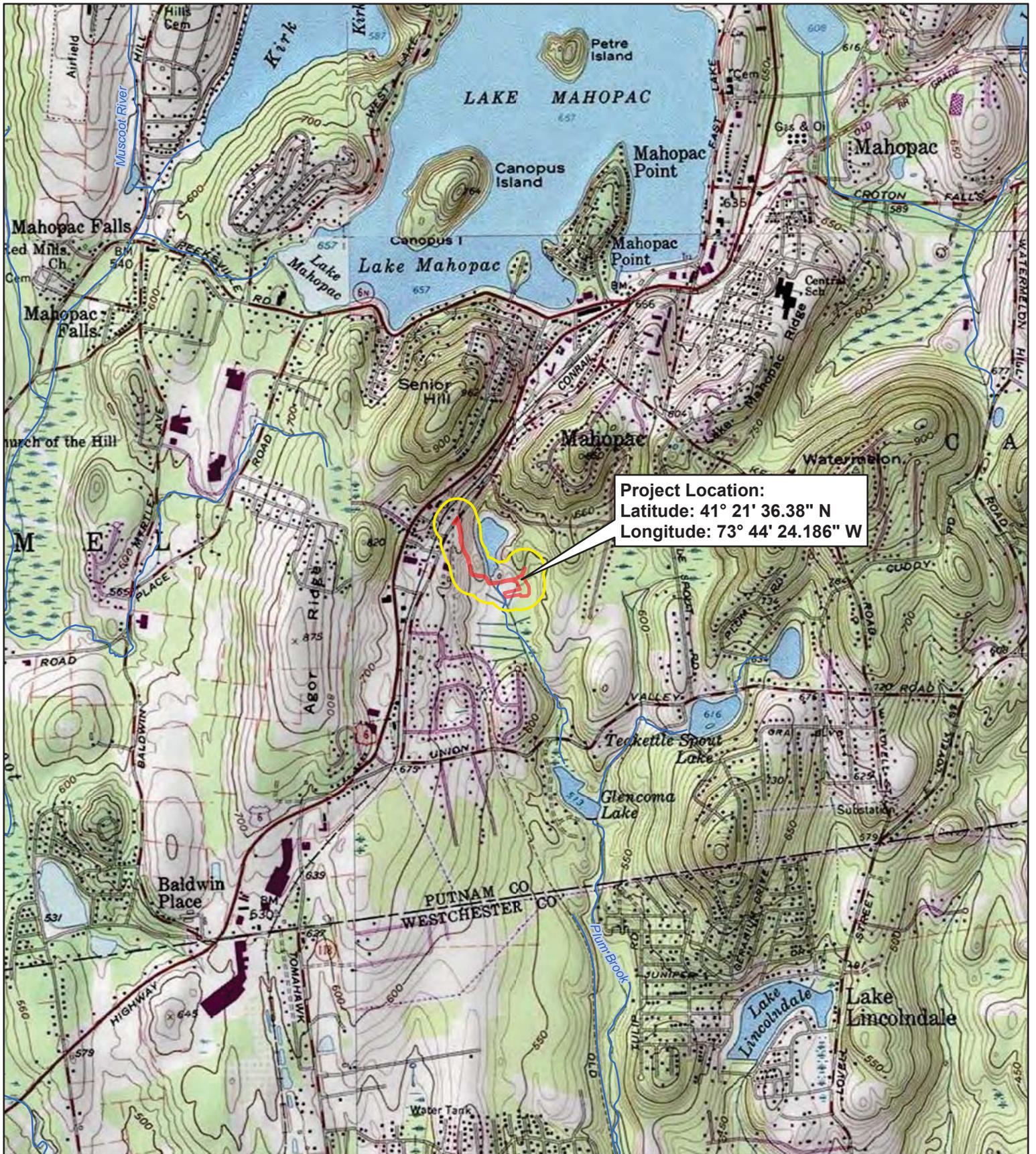
There are no impacts to NYSDEC Freshwater Wetlands during the installation of the electrical conduit.

NYSDEC Freshwater Wetland Adjacent Area Impacts

Temporary Adjacent Area Impacts

- 3,882 ft²; 0.089 ac

Section A: Topographic Location Map and Aerial Layout Map



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

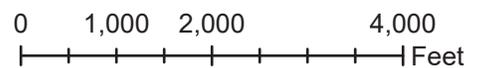
FIGURE 1
USGS TOPOGRAPHIC LOCATION MAP
CROTON FALLS AND MOHEGAN LAKE, NY
7.5-MINUTE QUADRANGLES

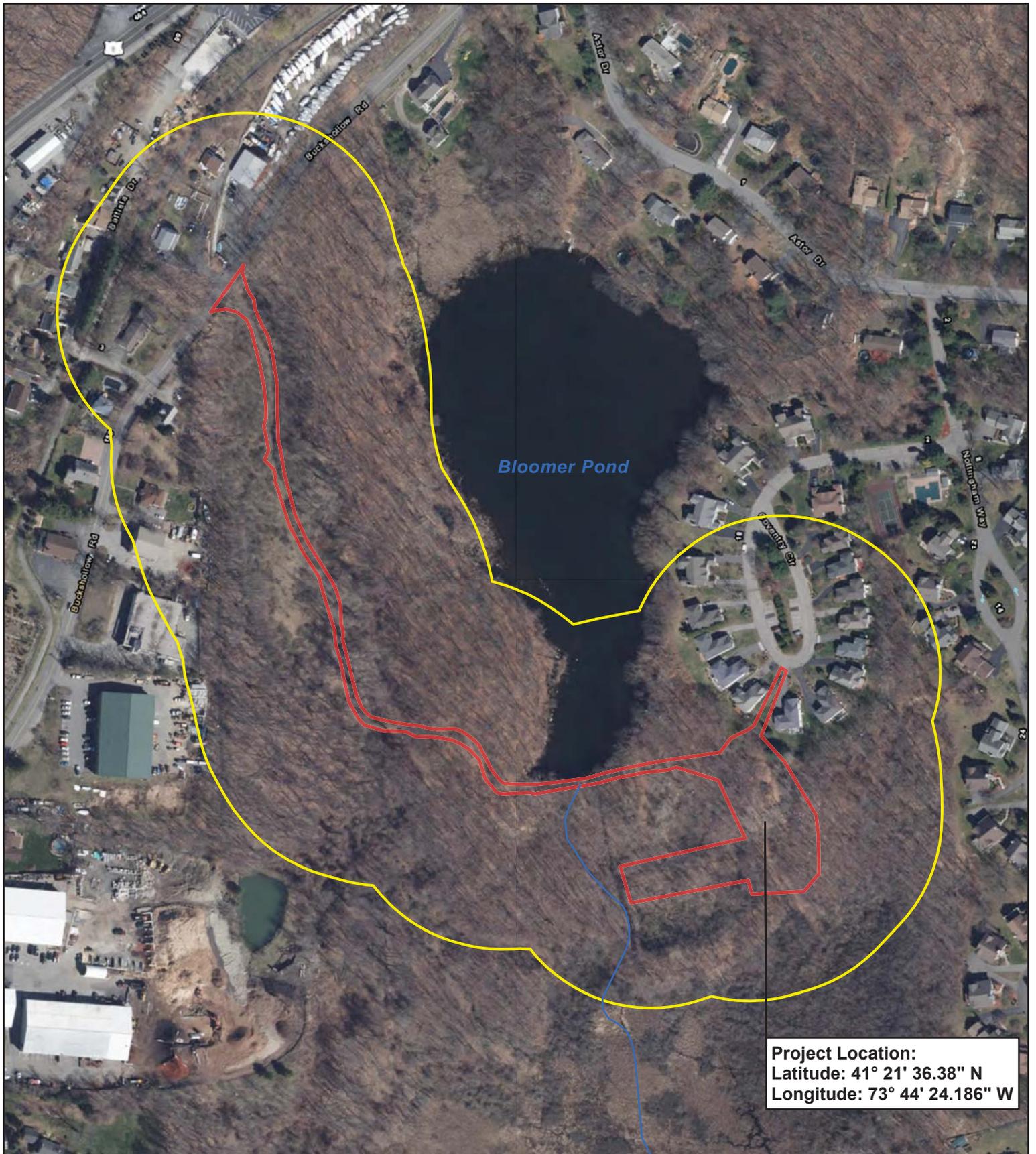
SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

- Legend**
-  Streams
 -  Project Study Area
 -  Action Area



SCALE: 1 in = 2,000 ft





Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

FIGURE 2

PROJECT LOCATION AND STUDY AREA MAP

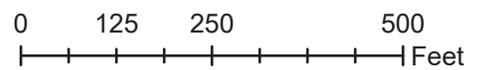
SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

Legend

-  Streams
-  Action Area
-  Project Study Area



SCALE: 1 in = 250 ft



Section B: Wetland Delineation Report

WETLAND AND WATERWAY IDENTIFICATION AND DELINEATION REPORT



SUEZ Water New York Inc. PFAS Compliance Project H – Mahopac Well No. 1, 2, & 3

Town of Carmel, Putnam County, New York

Prepared for:

SUEZ Water New York, Inc.
162 Old Mill Rd
West Nyack, NY 10994

Prepared by:



207 Senate Avenue
Camp Hill, PA 17011

May 2021

GF Project No. 068577

**WETLAND AND WATERWAY
IDENTIFICATION AND
DELINEATION REPORT**

**SUEZ Water New York Inc. PFAS Compliance
Project H – Mahopac Well No. 1, 2, & 3**
Town of Carmel, Putnam County, New York

Prepared for:

SUEZ Water New York Inc.

Prepared by:



May 2021

TABLE OF CONTENTS

1.0 Executive Summary..... 1
2.0 Project Description 3
3.0 Purpose..... 3
4.0 Study Area Description..... 3
 4.1 Topography 3
 4.2 Soils 4
 4.3 Geology 4
 4.4 Surface Waters 4
 4.5 National Wetlands Inventory 4
 4.6 NYSDEC Wetlands 5
5.0 Methods 11
6.0 Field Observations and Delineated Features..... 12
 6.1 Waterbodies & Wetlands..... 12
 6.2 Waterways 13
7.0 Wetland & Waterway Resource Summary 13
8.0 References..... 14
9.0 List of Contributors 16

FIGURES

Figure 1. USGS Topographic Location Map..... 6
Figure 2. Project Location and Study Area Map 7
Figure 3. Soil Survey Map..... 8
Figure 4. National Wetlands Inventory Map 9
Figure 5. NYSDEC Wetlands Map..... 10

TABLES

Table 1. Wetland and Waterway Summary..... 2
Table 2. Dominant Plant Species List 12
Table 3. Delineated Wetland Resource Summary 13

APPENDICES

APPENDIX A – WETLANDS AND WATERWAYS MAPPING

APPENDIX B – SITE PHOTOGRAPHS AND PHOTOGRAPH LOCATION MAP

APPENDIX C – WETLAND FIELD DATA FORMS

1.0 Executive Summary

SUEZ Water New York, Inc. (SUEZ) is proposing the construction of upgrades at their existing Mahopac well site. The proposed study area (41°21'36.380"N, 73°44'24.186"W) is located in the Town of Carmel, Putnam County, New York.

SUEZ proposes to construct upgrades to comply with the state drinking water regulations for per- and polyfluoroalkyl substances (PFAS). Some PFAS do not break down easily and persist for a long time in the environment. The planned upgrade will add treatment for PFAS to below the New York State Drinking Water Standard of 10 parts per trillion (ppt) for both perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), the regulated compounds.

The project study area for this project encompassed the entire SUEZ parcel. A 300-foot buffer surrounding the project study area was used to create an action area for a Phase I Bog Turtle Survey in coordination with U.S. Fish and Wildlife Service (USFWS). The action area was investigated for wetlands and watercourses in addition to the project study area and results are included within this report.

The purpose of this report is to present the results of the wetlands and waterways investigation performed within the proposed project study area and action area. This report was prepared to satisfy the regulatory requirements of the U.S. Army Corps of Engineers (USACE) under the purview of Section 404 of the Clean Water Act and New York State Department of Environmental Conservation (NYSDEC) under Article 24, Freshwater Wetlands Act.

On April 20, 2021, Gannett Fleming, Inc. (GF) conducted a field investigation to delineate wetlands and waterways within the 2.3-acre project study area and 37-acre action area for use in project planning and permitting efforts for the PFAS Compliance Project H – Mahopac Well No. 1, 2, & 3. One (1) palustrine wetland and one (1) waterway were delineated within the project study area (**Table 1**). Plum Brook was confirmed in the field as a perennial waterway within the project study area. Bloomer Pond was also confirmed adjacent to the project study area. Wetland and waterway boundaries were mapped in the field and are presented in **Appendix A**. Photographs were taken of the wetlands and waterways and are provided in **Appendix B**. Wetland data forms were completed to document the hydrology, vegetation, and soil conditions of the delineated wetlands and are provided in **Appendix C**.

Table 1. Wetland and Waterway Summary

PROJECT TOTALS		
WETLANDS		
Feature Type	Number Present	Total Acres (AC)
▪ PFO Wetland	1	4.74+
WATERWAYS		
Feature Type	Number Present	Total Linear Feet (LF)
▪ Perennial Waterway	1	186

Wetlands

- Wetland 1 – PFO wetland, 4.74+ acres (Open-Ended)

Waterways

- Stream 1 (Plum Brook) – Perennial, 186 linear feet

2.0 Project Description

SUEZ Water New York, Inc. (SUEZ) is proposing the construction of upgrades at their existing Mahopac well site. The proposed study area (41°21'36.380"N, 73°44'24.186"W) is located in the Town of Carmel, Putnam County, New York.

SUEZ proposes to construct upgrades to comply with the state drinking water regulations for per- and polyfluoroalkyl substances (PFAS). Some PFAS do not break down easily and persist for a long time in the environment. The planned upgrade will add treatment for PFAS to below the New York State Drinking Water Standard of 10 parts per trillion (ppt) for both PFOA and PFOS, the regulated compounds

The project study area for this project encompassed the entire SUEZ parcel. A 300-foot buffer surrounding the project study area was used to create an action area for a Phase I Bog Turtle Survey in coordination with USFWS. The action area was investigated for wetlands and watercourses in addition to the project study area and results are included within this report.

The proposed PFAS upgrades will be installed within the existing SUEZ property located on the east side of Buckshollow Road in the Town of Carmel, New York. The proposed project study area is approximately 2.3 acres and is located immediately south of Bloomer Pond. The action area surrounding the project study area is approximately 37 acres. The project study area and action area consist of predominantly forested area, gravel access roads, existing well infrastructure, residential properties, and local roads.

3.0 Purpose

The purpose of this report is to present the results of the wetlands and waterways investigation performed within the proposed project study area. This report was prepared to satisfy the regulatory requirements of the USACE under the purview of Section 404 of the Clean Water Act and NYSDEC under Article 24, Freshwater Wetlands Act.

4.0 Study Area Description

A 300-foot buffer or action area was used surrounding the project study area. The action area was investigated as part of the Phase I bog turtle habitat survey. The 2.3-acre project study area and 37-acre action area consisted of forested wetlands, Plum Brook, Bloomer Pond, the existing wells, adjacent residential properties, and upland forest along the quarter-mile access road.

4.1 Topography

According to the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Croton Falls and Mohegan Lake, New York), the elevation of the project study area ranged from approximately 560 to 600 feet above mean sea level (amsl). The access road entrance from Buckshollow Road has an elevation of 650 feet amsl. An excerpt from the USGS Topographic Quadrangle Map is provided as **Figure 1**. A Project Location and Study Area Map is provided as **Figure 2**.

4.2 Soils

According to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Soil Survey, thirteen (13) soil series were mapped within the project study area, action area, and along the access road: Catden muck, 0 to 2 percent slopes (Ce), Charlton fine sandy loam, 3 to 8 percent slopes (ChB), Charlton fine sandy loam, 8 to 15 percent slopes (ChC), Charlton loam, 25 to 35 percent slopes (ChE), Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky (CrC), Leicester loam, 2 to 8 percent slopes, very stony (LeB), Natchaug muck, 0 to 2 percent slopes (NcA), Paxton fine sandy loam, 15 to 25 percent slopes (PnD), Paxton fine sandy loam, 8 to 15 percent slopes, very stony (PoC), Ridgebury complex, 3 to 8 percent slopes (RdB), Sun loam (Sh), Sun loam, extremely stony (Sm), and Udorthents, smoothed (Ub). Ce, NcA, Sh and Sm are nationally listed hydric soils (100%). RdB and LeB have hydric ratings of 58 and 35%, respectively. CrC is listed as having 5% hydric inclusions. PoC and Ub soils are listed as having 2% hydric inclusions. ChB and PnD are listed as having 1% hydric inclusions. The remaining soil units are listed as non-hydric. An excerpt from the soil survey mapping is provided as **Figure 3**.

4.3 Geology

The project is located in the Hudson Highlands Section of the Physiographic Provinces of New York (NYSM, 1995). The project study area is underlain by the Biotite granite gneiss (bg) unit of bedrock; the bg unit that underlays the project study area consists of “biotite granitic gneiss, overprint signifies inequigranular texture” assumed to be from the Middle Proterozoic period (NYSM, 1995). The project is also underlain by the surficial geologic unit till (t) defined by “variable texture (e.g. clay, silt-clay, boulder clay), usually poorly sorted diamict, deposition beneath glacier ice, relatively impermeable (loamy matrix), variable clast content...potential land instability on steep slopes, thickness variable (1-50 meters)” (NYSM, 1989).

4.4 Surface Waters

The USGS map identified Plum Brook as a perennial waterway within the project area (**Figure 1**). No other streams or waterbodies were identified on USGS mapping within or immediately adjacent to the project study area or action area.

NYSDEC has designated Plum Brook as water quality classification ‘C’. This classification indicates that the water resource supports fisheries and non-contact activities. A ‘C’ classification is not considered protected waters of the state.

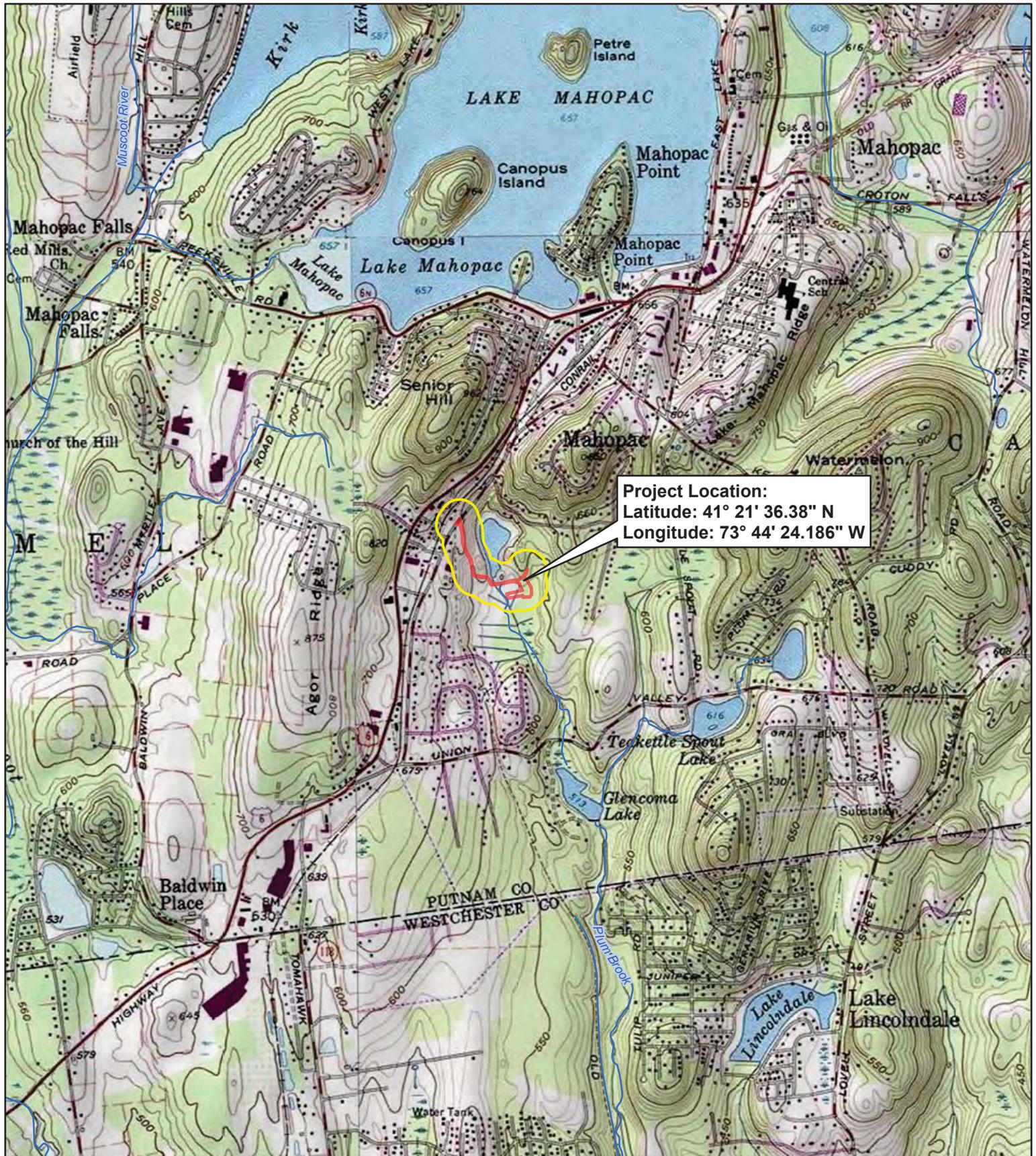
4.5 National Wetlands Inventory

The National Wetlands Inventory (NWI) online mapping tool identified multiple features within the project study area and action area. NWI identified Bloomer Pond as a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) feature. Plum Brook was identified as a riverine, intermittent, streambed, seasonally flooded (R4SBC) watercourse. A second R4SBC feature was mapped within and adjacent to the access road. This feature flowed into a mapped riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH) feature along the southern edge of the action area. NWI mapped wetlands included a 0.27 acre palustrine emergent, persistent, scrub-shrub, broad-leaved deciduous, seasonally flooded (PEM1/SS1C) complex near the proposed project site, and a larger 12.64 acre palustrine emergent,

persistent, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated, partially drained/ditched (PEM1/SS1Ed) complex and 0.09 acre palustrine, unconsolidated bottom, semipermanently flooded, beaver (PUBFb) within the action area. The NWI map for the project study area is provided as **Figure 4**.

4.6 NYSDEC Wetlands

NYSDEC identified one (1) state regulated freshwater wetland within the project study area. Wetland CF-1 is a Class 2 wetland totaling 25.5 acres located within the project study area and action area. The project study area and action area are within the wetland, the 100-foot buffer, and the 500-foot checkzone of this wetland. The NYSDEC wetlands map for the project study area is provided as **Figure 5**.



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

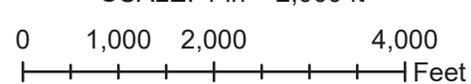
FIGURE 1
USGS TOPOGRAPHIC LOCATION MAP
CROTON FALLS AND MOHEGAN LAKE, NY
7.5-MINUTE QUADRANGLES
 SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

- Legend**
-  Streams
 -  Project Study Area
 -  Action Area

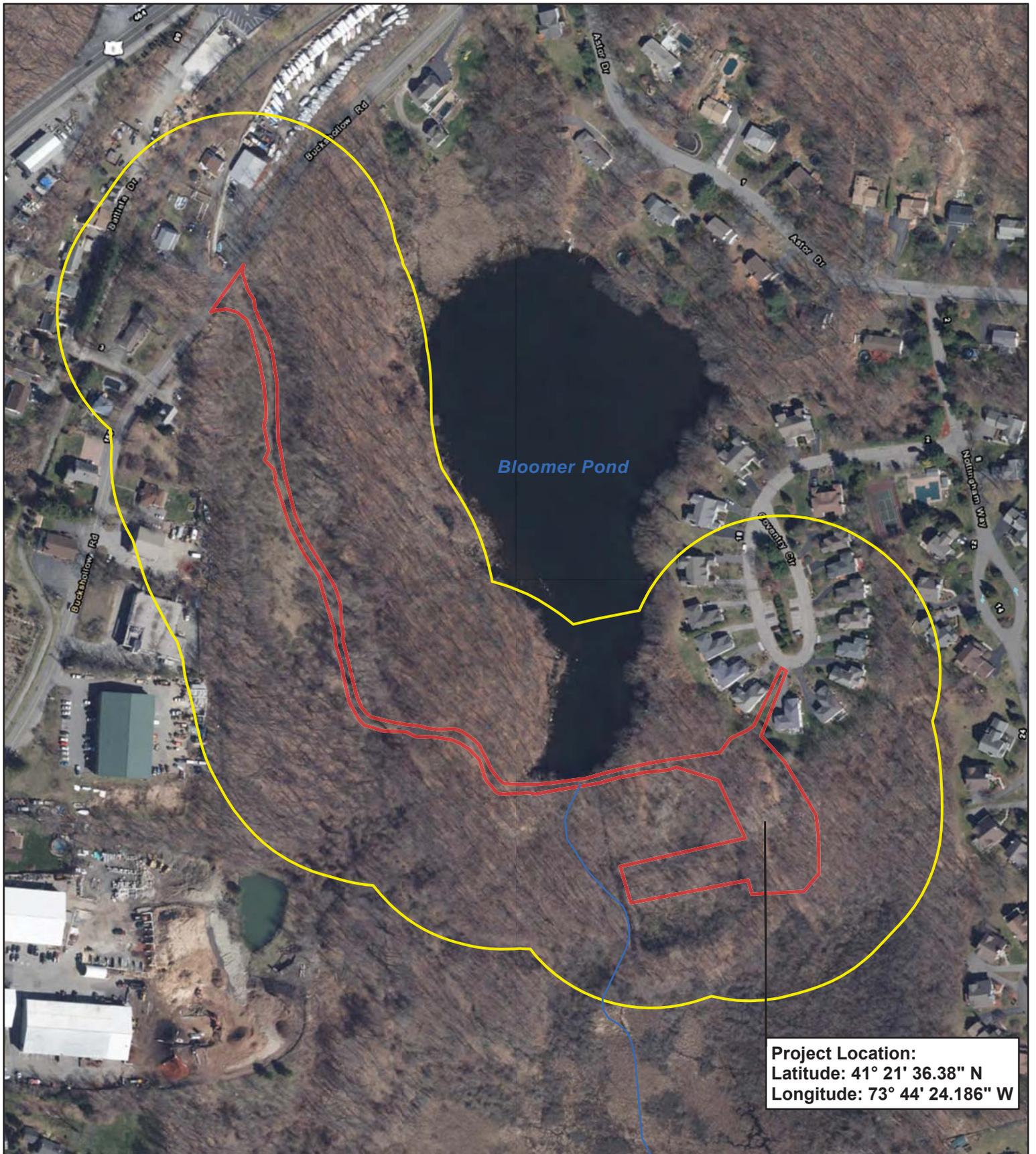




SCALE: 1 in = 2,000 ft



Data Source: Topographic mapping provided by ArcGIS webservices. Streams were provided by NY Clearinghouse in April 2021.



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

FIGURE 2

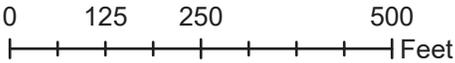
PROJECT LOCATION AND STUDY AREA MAP

SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

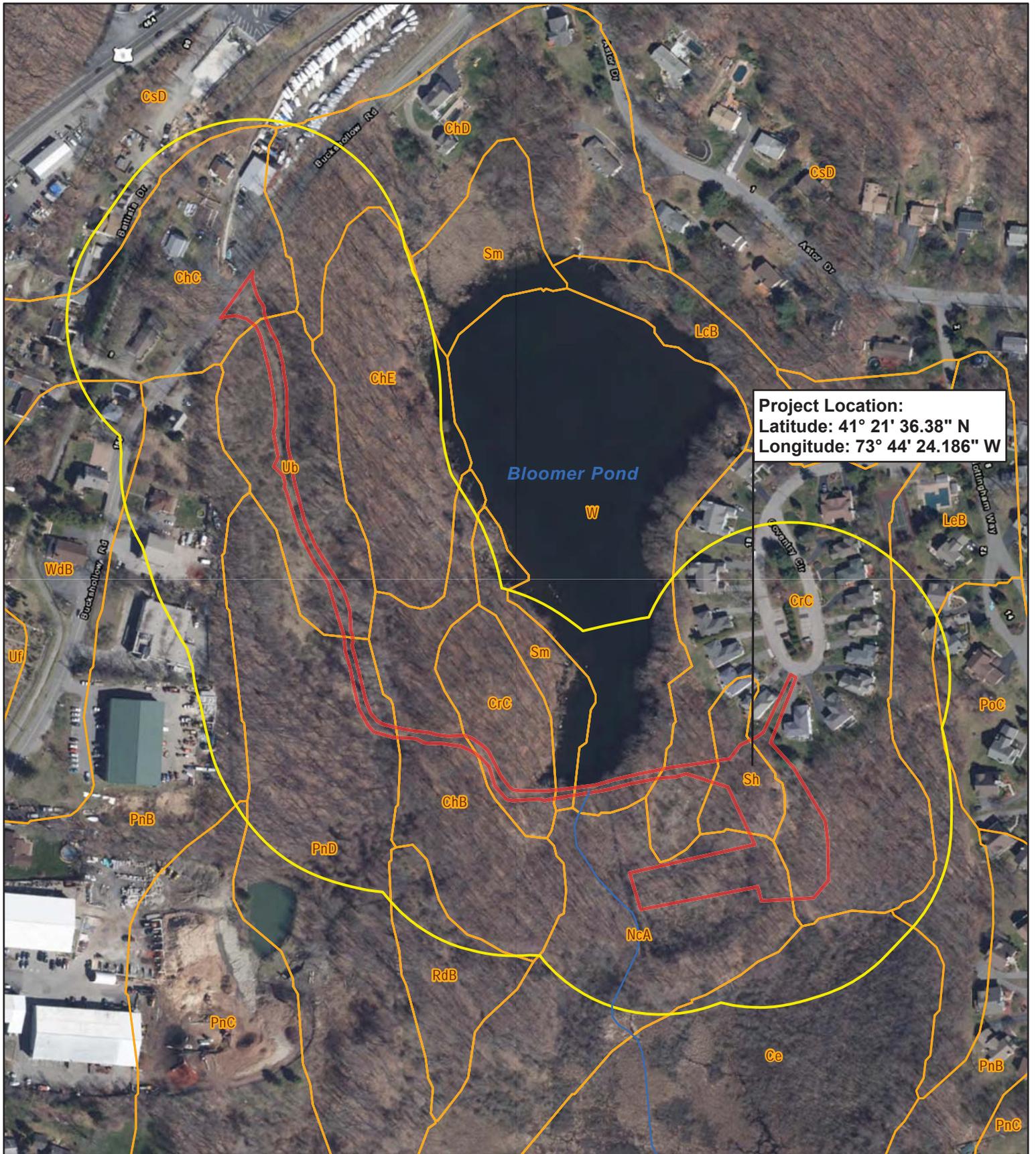
- Legend**
-  Streams
 -  Action Area
 -  Project Study Area



SCALE: 1 in = 250 ft



Data Source: Aerial Imagery provided by ArcGIS webservices. Streams were provided by NY Clearinghouse in April 2021.



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

FIGURE 3

SOIL SURVEY MAP

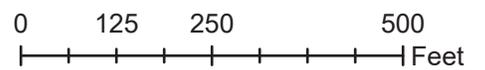
SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

Legend

-  Streams
-  Action Area
-  Project Study Area
-  Putnam Co. Soils



SCALE: 1 in = 250 ft



Data Source: Aerial Imagery provided by ArcGIS webservices. Streams were provided by NY Clearinghouse in April 2021. USDA soils data June 2020 downloaded from SSURGO website 2021.



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

FIGURE 4

NATIONAL WETLANDS INVENTORY MAP

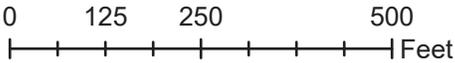
SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

Legend

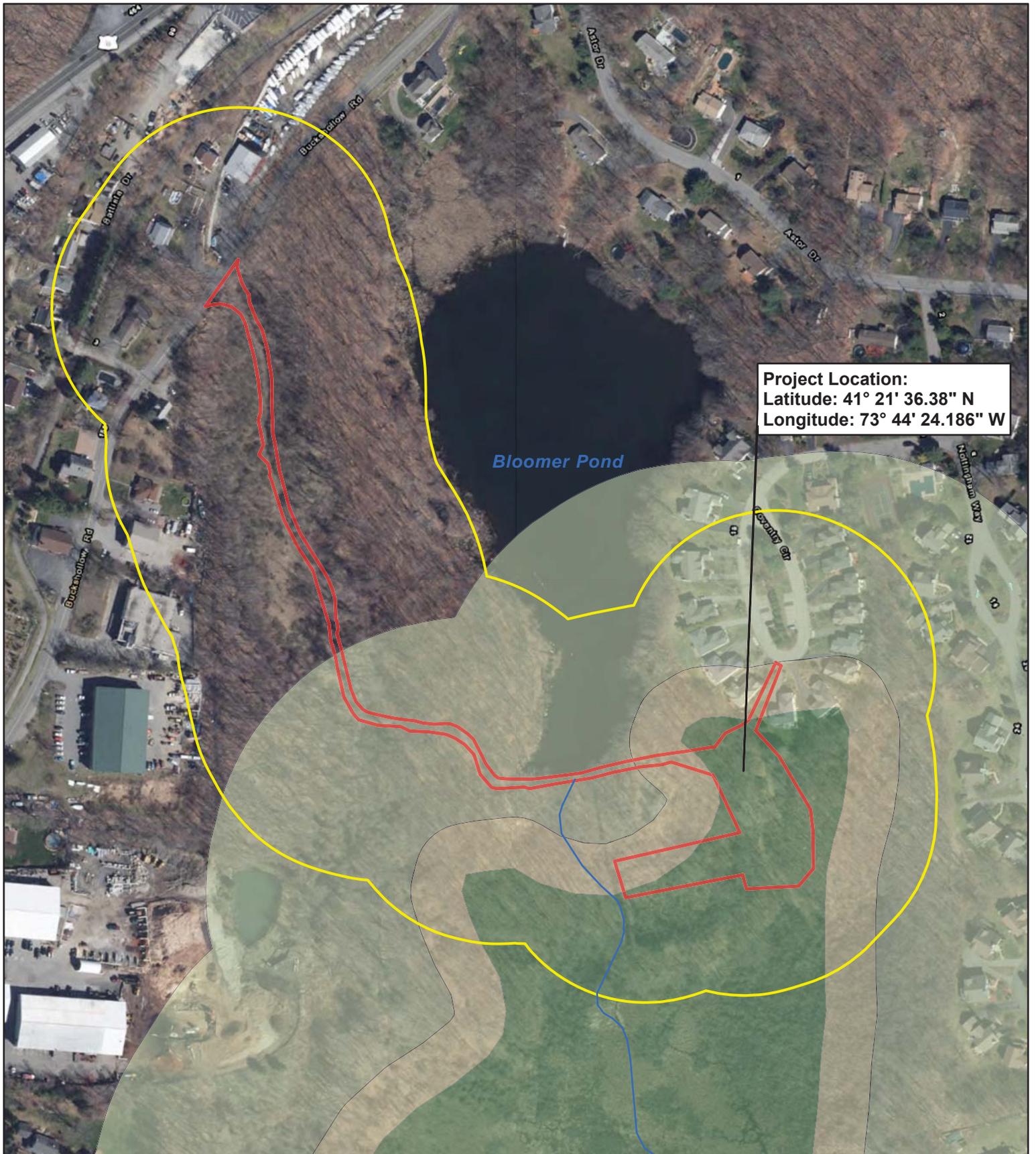
- Streams
- Action Area
- Project Study Area
- NWI Wetlands**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine



SCALE: 1 in = 250 ft



Data Source: Aerial Imagery provided by ArcGIS webservices. Streams were provided by NY Clearinghouse in April 2021. NWI Wetlands downloaded 2019.



Project Location:
 Latitude: 41° 21' 36.38" N
 Longitude: 73° 44' 24.186" W

FIGURE 5
NYSDEC WETLANDS MAP

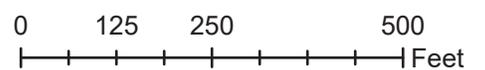
SUEZ Water New York, Inc.
 PFAS Compliance Project H - Mahopac Well
 Town of Carmel,
 Putnam County, NY

Legend

- Streams
- Action Area
- Project Study Area
- NYSDEC Freshwater Wetland Boundary
- NYSDEC Freshwater Wetland 100' Buffer
- NYSDEC Freshwater Wetland Checkzone



SCALE: 1 in = 250 ft



5.0 Methods

The 2.3-acre project study area and 37-acre action area was investigated for palustrine wetland indicators of vegetative composition, soil development, and hydrology. The investigation was conducted in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (U.S. Army Corps of Engineers, 2012). Wetland field data forms were completed to document wetland or non-wetland data points. If present, wetlands within and directly adjacent to the study area were delineated so that their presence could be shown on project mapping to aid in impact avoidance and/or minimization during engineering design.

Soils were characterized by evaluating the upper horizons of the soil profile. Soil pits were dug using a “sharpshooter” spade with a 16-inch blade. Soil horizons were evaluated using normal field protocols for determining texture and nomenclature. The *Munsell Soil Color Charts* (Kollmorgen Instruments Corporation, 1994) were used to determine the colors of horizons and redoximorphic features. Soil observations of reducing conditions were determined in the field using presence/absence determinations of redoximorphic concretions and oxidized rhizospheres, and identifying low chroma matrices according to *Field Indicators of Hydric Soils in the United States (Version 7.0)* (USDA-NRCS, 2010).

Vegetation was identified using *A Field Guide to Trees and Shrubs* (Petrides, 1986), *Newcomb's Wildflower Guide* (Newcomb, 1977), and *Grasses: An Identification Guide* (Brown, 1979). Plant species were assigned an indicator status [i.e., Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), or Obligate Wetland (OBL)] based on the *2018 National Wetland Plant List (Version 3.4)* (USACE, 2018).

Data point locations were investigated for primary and secondary wetland hydrology indicators. If present, wetland boundaries were marked using pink wetland flagging. Wetland boundary data points were located using a Trimble Geo7X Global Positioning System (GPS) with Trimble Tornado receiver. The Trimble Geo7X and Tornado are capable of attaining sub-meter accuracy. The GPS data were then transferred onto relevant project mapping using the U.S. State Plane NY East coordinate system.

Wetland type classifications were assigned to each wetland following the Cowardin et al methods (1979). Hydrogeomorphic classifications were assigned to each wetland based on the *Hydrogeomorphic Wetland Classification: HGM Classification for Wetlands of the Mid-Atlantic Region, USA* (Brooks, 2017). Palustrine plant community classifications were assigned to each wetland based on *Ecological Communities of New York State* (Edinger et al, 2014). Color photographs were taken of all relevant features to document site conditions during the time of the investigation.

Waterways were identified through a review of available mapping and field investigation. Topographic and engineering maps were reviewed for the presence of streams within the project study area. A field investigation for waterways was performed in conjunction with the wetland field investigation and included the field verification of mapped watercourses and the identification and delineation of streams, springs, and seeps that were not shown on existing engineering plans. Waterways were identified by the presence of bed and banks and/or ordinary high-water marks. The flow regime of each identified waterway was characterized based upon

field indicators of hydrologic, floral, and faunal character at the time of the investigation. All identified waterways were photographed and located using GPS.

6.0 Field Observations and Delineated Features

On April 20, 2021, GF investigated the 2.3-acre project study area and 37-acre action area for wetlands and waterways. The weather conditions were sunny with a high temperature of 74°F. Precipitation data indicated no precipitation occurred on the day of the investigation and no precipitation fell across the region within the 48 hours prior to the field investigation. Weather data was recorded at Danbury Municipal Airport Station in Danbury, CT, approximately 14 miles east of the project study area.

The dominant land-uses within and surrounding the project study area included gravel access roads and parking areas, residential properties, mixed forests, Bloomer Pond, Plum Brook and existing well infrastructure. Dominant vegetation observed within the project study area is summarized in **Table 2**.

Table 2. Dominant Plant Species List

Scientific Name	Common Name	Indicator Status
Tree Species		
<i>Acer rubrum</i>	Red Maple	FAC
<i>Quercus velutina</i>	Black Oak	NL
<i>Betula alleghaniensis</i>	Yellow Birch	FAC
<i>Fagus grandifolia</i>	American Beech	FACU
<i>Carpinus caroliniana</i>	American Hornbeam	FAC
Shrub Species		
<i>Lindera benzoin</i>	Northern Spicebush	FACW
<i>Rosa multiflora</i>	Multiflora Rose	FACU
<i>Berberis thunbergii</i>	Japanese Barberry	FACU
<i>Vaccinium corymbosum</i>	Highbush Blueberry	FACW
<i>Viburnum lentago</i>	Nannyberry	FAC
<i>Elaeagnus umbellata</i>	Autumn Olive	NL
Herb Species		
<i>Alliaria petiolata</i>	Garlic Mustard	FACU
<i>Symplocarpus foetidus</i>	Skunk Cabbage	OBL
<i>Equisetum arvense</i>	Field Horsetail	FAC
<i>Carex stricta</i>	Tussock Sedge	OBL
<i>Phragmites australis</i>	Common Reed	FACW

6.1 Waterbodies & Wetlands

During the field investigation, one (1) palustrine wetland complex was delineated within the project study area and action area. Delineated wetlands are listed in **Table 3** with their respective delineated area, Cowardin Classification, hydrogeomorphic (HGM) wetland classification, and

Ecological Community of New York State. Wetland boundaries were mapped and are presented in **Appendix A**. Photographs were taken of the wetlands and are provided in **Appendix B**. The Wetland Determination Data Forms are provided in **Appendix C**.

Table 3. Delineated Wetland Resource Summary

Wetland ID	Area (acre)	Cowardin Classification	HGM Wetland Classification	Ecological Community
Wetland 1	4.74+ (Open-Ended)	PFO	Depression Perennial (DFH)	Red Maple- Hardwood Swamp

6.2 Waterways

During the field investigation, one (1) waterway was identified and delineated within the project study area and action area. This waterway was confirmed as perennial Plum Brook during the investigation.

Stream 1 (Plum Brook) - perennial, 186 linear feet

Plum Brook was confirmed within the project study area and action area. Plum Brook flows under the existing access road through a culvert from Bloomer Pond. This waterway flows from north to south and ends in diffuse flow within Wetland 1.

Channel Width	Bank Height	Water Depth	Substrate
5-8 feet	1 foot	2-4 inches	Silt, Sand, Small Cobble, Woody Debris

7.0 Wetland & Waterway Resource Summary

The field investigation conducted by GF on April 20, 2021 identified and delineated one (1) wetland and one (1) waterway in conjunction with the PFAS Compliance Project H – Mahopac Well No. 1, 2, & 3. Bloomer Pond was confirmed in the field adjacent to the project study area but was not delineated. The pond was mapped by traditional land survey and will be added to the project construction drawings. The following features were identified on mapping and delineated in the field:

Wetlands (Field Delineated)

- Wetland 1 – PFO wetland, 4.74+ acres (Open-Ended)

Waterways (Field Delineated)

- Stream 1 (Plum Brook) – Perennial, 186 linear feet

8.0 References

- Brooks, R.P., M.M. Brinson, K.J. Havens, C.S. Hershner, R.D. Rheinhardt, D.H. Wardrop, D.F. Whigham, A.D. Jacobs, and J.M. Rubbo. 2011. *Proposed hydrogeomorphic classification for wetlands of the Mid-Atlantic Region, USA*. *Wetlands* 31(2):207-219.
- Brown, L. 1979. *Grasses: An Identification Guide*. Houghton Mifflin Company; Boston, New York, London.
- Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, D.C.
- Edinger, et al. 2014. *Ecological Communities of New York State: Second Edition*. New York Natural Heritage Program, Albany, NY.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS. Technical Report Y-87-1.
- Munsell. 2015. *Munsell Soil Color Charts, 2009 Year Revised*. Munsell Color, x-rite. 4300 44th Street, Grand Rapids, MI 49512.
- Newcomb, Lawrence. 1977. *Newcomb's Wildflower Guide*. Little, Brown and Company.
- New York State Museum (NYSM). 1989. *Surficial Geologic Map of New York: Lower Hudson Sheet*. Map prepared by the New York State Geological Survey.
- New York State Museum (NYSM). 1995. *Geologic Map of New York: Lower Hudson Sheet*. Map prepared by the New York State Geological Survey.
- New York State Museum (NYSM). 1995. *Physiographic Provinces of New York*, adapted from 1946 version. Map prepared by the New York State Geological Survey.
- Petrides, George A. 1986. *A Field Guide to Trees and Shrubs*. New York: Houghton Mifflin Co.
- U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. ERDC/EL TR-12-9. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers 2018. National Wetland Plant List, version 3.4. <http://wetland-plants.usace.army.mil/>. U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.
- United States Department of Agriculture - Natural Resources Conservation Service. 2010. *Field Indicators of Hydric Soils in the United States, Version 7.0*. L.M. Vasilas, G.W. Hurt, and C.V. Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

U.S. Department of Agriculture - Natural Resources Conservation Service. 2021 Web Soil Survey. Accessed April 19, 2021. <http://websoilsurvey.nrcs.usda.gov/app/>

U.S. Fish and Wildlife Service. National Wetlands Inventory NWI Wetlands Online Mapper. Accessed April 19, 2021. <http://www.fws.gov/wetlands/Data/mapper.html>

U.S. Geological Survey. 2013. Topographic Map 7.5' Quadrangle, Croton Falls, New York.

U.S. Geological Survey. 2013. Topographic Map 7.5' Quadrangle, Mohegan Lake, New York.

Weather Underground. 2021. “*Danbury, CT Weather History.*” Available online at <https://www.wunderground.com/>. Accessed April 28, 2021.

9.0 List of Contributors

Steven C. Smith, Senior Environmental Scientist
38 Hour U.S. Army Corps of Engineers Wetland Delineator Certification Training Program
PennDOT Phase I Bog Turtle Habitat Evaluation Training
Professional Experience: 21 years
Education: B.S. Geoenvironmental Studies

Jillian Arnold, Senior Environmental Scientist
36-Hour Swamp School Wetland Delineation & Regional Supplement Training
Society of Wetland Scientists, Professional Wetland Scientist (PWS) #2736
PennDOT Phase I Bog Turtle Habitat Evaluation Training
Professional Experience: 17 years
Education: B.S., Geoenvironmental Studies, GIS Certificate
M.S., Biology

Clayton D. Frey, Environmental Scientist
36-Hour Swamp School Wetland Delineation and Regional Supplement Training
24-Hour OSHA Hazardous Waste Operations and Emergency Response Certification
Professional Experience: 3 years
Education: B.S., Wildlife and Fisheries Science

Kayla Briggs, Environmental Scientist
ESRI MOOC Do it Yourself Geo Apps (6-Week Course)
ESRI Web Courses and Online Training Seminars
Professional Experience: 11 years
Education: B.S., Geoenvironmental Studies, GIS Certificate

APPENDIX A
WETLANDS AND WATERWAYS MAPPING



WETLANDS AND WATERWAYS MAPPING

SUEZ Water New York, Inc.
PFAS Compliance Project H - Mahopac Well

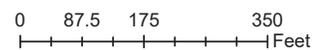
Town of Carmel,
Putnam County, NY

Legend

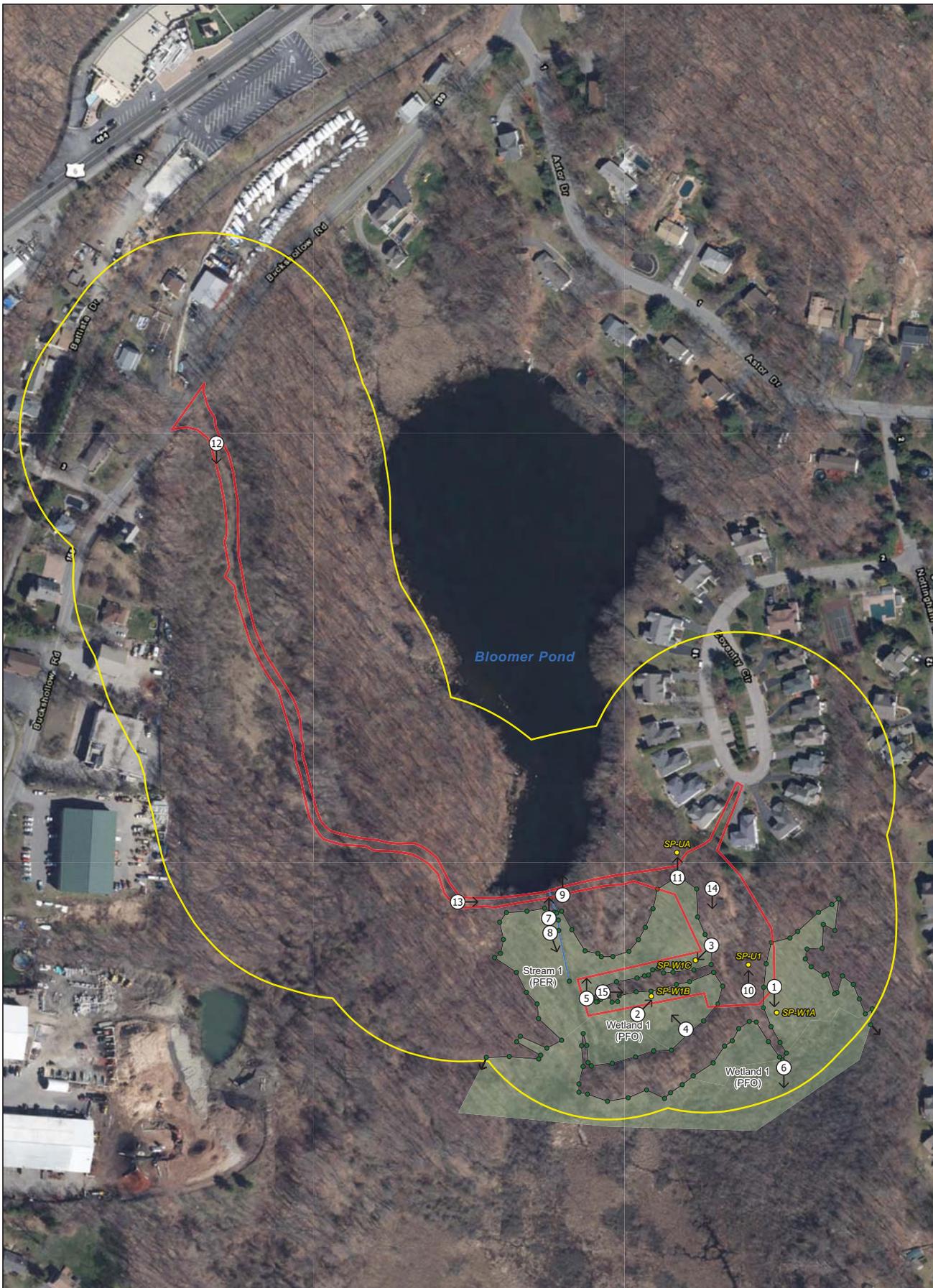
- Project Study Area
- Action Area
- Delineation Data
- Test Pits
- Flag Locations
- ~ Stream
- Wetland Boundary
- Wetland Type
- PFO



SCALE: 1 in = 175 ft



APPENDIX B
SITE PHOTOGRAPHS AND
PHOTOGRAPH LOCATION MAP



PHOTOGRAPH LOCATION MAP

SUEZ Water New York, Inc.
PFAS Compliance Project H - Mahopac Well

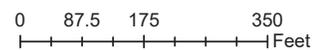
Town of Carmel,
Putnam County, NY

Legend

- Photo Location
- Action Area
- Project Study Area
- Delineation Data**
- Test Pits
- Flag Locations
- Stream Digitized from Aerial
- Stream Field Delineated
- Wetland Boundary
- Wetland Type**
- PFO



SCALE: 1 in = 175 ft



Data Source: Aerial Imagery provided by ArcGIS webservices. Stream and wetlands delineated by Gannett Fleming Spring 2021.

Appendix B – Site Photographs



Photograph 1: Overview of SP-W1A, a wetland test pit recorded within Wetland 1 (PFO). (facing south; 4/20/2021)



Photograph 2: Overview of SP-W1B, a wetland test pit recorded within Wetland 1 (PFO). (facing northeast; 4/20/2021)

Appendix B – Site Photographs



Photograph 3: Overview of SP-W1C, a wetland test pit recorded within Wetland 1 (PFO), looking towards Well No. 2. (facing southwest; 4/20/2021)



Photograph 4: Overview of Wetland 1 (PFO), looking toward Well No. 1. (facing northwest; 4/20/2021)

Appendix B – Site Photographs



Photograph 5: Overview of Wetland 1 (PFO), taken west of Well No. 1. (facing north; 4/20/2021)



Photograph 6: Overview Wetland 1 (PFO), taken near the southern extent of the action area. (facing south; 4/20/2021)

Appendix B – Site Photographs



Photograph 7: Overview of perennial Stream 1 (Plum Brook), looking upstream towards culvert under access road from Bloomer Pond. (facing north; 4/20/2021)



Photograph 8: Downstream view of Stream 1 (Plum Brook), taken south of culvert from Bloomer Pond. Stream 1 dissipates and loses definition beyond this area within Wetland 1 (facing south; 4/20/2021)

Appendix B – Site Photographs



Photograph 9: Overview of Bloomer Pond from the access road. Culvert feeding Stream 1 (Plum Brook) is visible in bottom right of photo. (facing north; 4/20/2021)



Photograph 10: View of SP-U1, an upland test pit taken to document conditions surrounding Wetland 1, looking towards the existing gravel parking area. (facing north; 4/20/2021)

Appendix B – Site Photographs



Photograph 11: View of SP-UA, an upland test pit taken within a well-drained depression on the north side of the access road. (facing north; 4/20/2021)



Photograph 12: Overview of the access road near the gate along Buckshollow Road. (facing south; 4/20/2021)

Appendix B – Site Photographs



Photograph 13: Overview of existing access road. Bloomer Pond is visible on left side of photo, Wetland 1 is visible on right side of photo. (facing east; 4/20/2021)



Photograph 14: Overview of existing gravel parking area at southeastern terminus of access road. Well No. 3 is visible on right side of photo. (facing north; 4/20/2021)

Appendix B – Site Photographs



Photograph 15: View of Well No. 1 with Well No. 2 visible in the background. Wells were located on an elevated berm that is surrounded by Wetland 1 (facing east; 4/20/2021)

APPENDIX C
WETLAND FIELD DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mahopac City/County: Putnam County Sampling Date: 04/20/2021
 Applicant/Owner: SUEZ Water NY State: NY Sampling Point: SP-W1
 Investigator(s): S. Smith, C. Frey Section, Township, Range: Town of Carmel
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR or MLRA): LRR R Lat: 41.359528 Long: 73.739425 Datum: NAD83
 Soil Map Unit Name: Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky (CrC) NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 1</u>
Remarks: (Explain alternative procedures here or in a separate report.) <p style="font-size: 1.2em;">Near the proposed turn-around area. Wetland gets wetter and muckier south of this location.</p>	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 																					
Remarks: 																					

VEGETATION – Use scientific names of plants.

Sampling Point: SP-W1

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.66</u> (A/B)														
1. <u>Acer rubrum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>50</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = <u>0</u>	FACW species _____	x 2 = <u>0</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x 1 = <u>0</u>																	
FACW species _____	x 2 = <u>0</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																		
1. <u>Rosa multiflora</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>5</u> = Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Symplocarpus foetidus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Equisetum arvense</u>	<u>2</u>	<u>N</u>	<u>FAC</u>															
3. <u>Berberis thunbergii</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
4. <u>Carex stricta</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>29</u> = Total Cover																		
Woody Vine Stratum (Plot size: _____)				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 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.														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mahopac City/County: Putnam County Sampling Date: 04/20/2021
 Applicant/Owner: SUEZ Water NY State: NY Sampling Point: SP-W1B
 Investigator(s): S. Smith, C. Frey Section, Township, Range: Town of Carmel
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR or MLRA): LRR R Lat: 41.359622 Long: 73.740324 Datum: NAD83
 Soil Map Unit Name: Natchaug muck, 0 to 2 percent slopes (NcA) NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 1</u>
Remarks: (Explain alternative procedures here or in a separate report.) Located adjacent to the peninsula that connects to Wells 1 and 2.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																					
Remarks:																					

VEGETATION – Use scientific names of plants.

Sampling Point: SP-W1B

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)																		
1. <u>Acer rubrum</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.66</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>60</u>																	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																		
1. <u>Rosa multiflora</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:right;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = <u>0</u>	FACW species _____	x 2 = <u>0</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x 1 = <u>0</u>																	
FACW species _____	x 2 = <u>0</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
2. <u>Carpinus caroliniana</u>	<u>1</u>	<u>N</u>	<u>FAC</u>															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>6</u>																	
Herb Stratum (Plot size: <u>5'</u>)																		
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Equisetum arvense</u>	<u>2</u>	<u>N</u>	<u>FAC</u>															
3. <u>Phragmites australis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
4. <u>Carex stricta</u>	<u>1</u>	<u>N</u>	<u>OBL</u>															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>48</u>																	
Woody Vine Stratum (Plot size: <u>N/A</u>)																		
1. _____				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 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.														
2. _____																		
3. _____																		
4. _____																		
	<u>0</u>																	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mahopac City/County: Putnam County Sampling Date: 04/20/2021
 Applicant/Owner: SUEZ Water NY State: NY Sampling Point: SP-W1C
 Investigator(s): S. Smith, C. Frey Section, Township, Range: Town of Carmel
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR or MLRA): LRR R Lat: 41.359815 Long: 73.740004 Datum: NAD83
 Soil Map Unit Name: Natchaug muck, 0 to 2 percent slopes (NcA) NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 1</u>
Remarks: (Explain alternative procedures here or in a separate report.) Sample site located adjacent to the peninsula that connects Wells 1 and 2.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																					
Remarks:																					

VEGETATION – Use scientific names of plants.

Sampling Point: SP-W1C

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)														
1. <u>Acer rubrum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>50</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; border-bottom: 1px solid black;">Total % Cover of:</td> <td style="width:50%; border-bottom: 1px solid black;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = <u>0</u>	FACW species _____	x 2 = <u>0</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x 1 = <u>0</u>																	
FACW species _____	x 2 = <u>0</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																		
1. <u>Lindera benzoin</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>															
2. <u>Viburnum lentago</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>30</u> = Total Cover																		
Herb Stratum (Plot size: <u>5'</u>)																		
1. <u>Symplocarpus foetidus</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Alliaria petiolate</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
3. <u>Carex stricta</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>55</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>N/A</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																		
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mahopac City/County: Putnam County Sampling Date: 04/22/2021
 Applicant/Owner: SUEZ Water NY State: NY Sampling Point: SP-U1
 Investigator(s): S. Smith, C. Frey Section, Township, Range: Town of Carmel
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 0
 Subregion (LRR or MLRA): LRR R Lat: 41.359788 Long: 73.739625 Datum: NAD83
 Soil Map Unit Name: Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky (CrC) NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Location of proposed turn-around area. Sparse skunk cabbage. Well drained, sandy soils.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				

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

Remarks:
 Area appears to well drained.

VEGETATION – Use scientific names of plants.

Sampling Point: SP-U1

	Absolute % Cover	Dominant Species?	Indicator Status															
<u>Tree Stratum</u> (Plot size: <u>30'</u>)																		
1. <u>Betula alleghaniensis</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>60</u>	= Total Cover																
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u>)																		
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:right;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = <u>0</u>	FACW species _____	x 2 = <u>0</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x 1 = <u>0</u>																	
FACW species _____	x 2 = <u>0</u>																	
FAC species _____	x 3 = <u>0</u>																	
FACU species _____	x 4 = <u>0</u>																	
UPL species _____	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>10</u>	= Total Cover																
<u>Herb Stratum</u> (Plot size: <u>5'</u>)																		
1. <u>Symplocarpus foetidus</u>	<u>2</u>	<u>N</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Alliaria petiolata</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Berberis thunbergii</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>87</u>	= Total Cover																
<u>Woody Vine Stratum</u> (Plot size: <u>N/A</u>)																		
1. _____				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 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.														
2. _____																		
3. _____																		
4. _____																		
	<u>0</u>	= Total Cover																
				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.)																		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mahopac City/County: Putnam County Sampling Date: 04/20/2021
 Applicant/Owner: SUEZ Water NY State: NY Sampling Point: SP-UA
 Investigator(s): S. Smith, C. Frey Section, Township, Range: Town of Carmel
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR or MLRA): LRR R Lat: 41.360399 Long: 73.740131 Datum: NAD83
 Soil Map Unit Name: Sun loam (Sh) NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Depression between Bloomer Pond and the residential properties. Drains to pipe under access road. Overland flow from storm events likely make this area wet enough to support the skunk cabbage but there is no evidence of prolonged saturation to create a wetland.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
<input type="checkbox"/> Surface Soil Cracks (B6)																																
<input type="checkbox"/> Drainage Patterns (B10)																																
<input type="checkbox"/> Moss Trim Lines (B16)																																
<input type="checkbox"/> Dry-Season Water Table (C2)																																
<input type="checkbox"/> Crayfish Burrows (C8)																																
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)																																
<input type="checkbox"/> Stunted or Stressed Plants (D1)																																
<input checked="" type="checkbox"/> Geomorphic Position (D2)																																
<input type="checkbox"/> Shallow Aquitard (D3)																																
<input type="checkbox"/> Microtopographic Relief (D4)																																
<input type="checkbox"/> FAC-Neutral Test (D5)																																
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks: Area is well drained																																

VEGETATION – Use scientific names of plants.

Sampling Point: SP-UA

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30'</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.00</u> (A/B)																
1. <u>Betula alleghaniensis</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>																	
2. <u>Fagus grandifolia</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Carpinus caroliniana</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>100</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; border:none;">Total % Cover of:</td> <td style="width:50%; border:none;">Multiply by:</td> </tr> <tr> <td style="border:none;">OBL species _____</td> <td style="border:none;">x 1 = <u>0</u></td> </tr> <tr> <td style="border:none;">FACW species _____</td> <td style="border:none;">x 2 = <u>0</u></td> </tr> <tr> <td style="border:none;">FAC species _____</td> <td style="border:none;">x 3 = <u>0</u></td> </tr> <tr> <td style="border:none;">FACU species _____</td> <td style="border:none;">x 4 = <u>0</u></td> </tr> <tr> <td style="border:none;">UPL species _____</td> <td style="border:none;">x 5 = <u>0</u></td> </tr> <tr> <td style="border:none;">Column Totals: <u>0</u></td> <td style="border:none;"><u>0</u> (A) <u>0</u> (B)</td> </tr> <tr> <td colspan="2" style="border:none; text-align:center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = <u>0</u>	FACW species _____	x 2 = <u>0</u>	FAC species _____	x 3 = <u>0</u>	FACU species _____	x 4 = <u>0</u>	UPL species _____	x 5 = <u>0</u>	Column Totals: <u>0</u>	<u>0</u> (A) <u>0</u> (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = <u>0</u>																			
FACW species _____	x 2 = <u>0</u>																			
FAC species _____	x 3 = <u>0</u>																			
FACU species _____	x 4 = <u>0</u>																			
UPL species _____	x 5 = <u>0</u>																			
Column Totals: <u>0</u>	<u>0</u> (A) <u>0</u> (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>10</u> = Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Symplocarpus foetidus</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>																	
2. <u>Alliaria petiolata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
<u>55</u> = Total Cover																				
Woody Vine Stratum (Plot size: _____)				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 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.																
1. _____																				
2. _____																				
3. _____																				
4. _____																				
<u>0</u> = Total Cover																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

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

Section C: Typical diagram of construction

Note: Please refer to the attached Site Plan set.

OWNERS WITHIN 500 FEET:

75.16-1-1	GEORGE P. & TRACEY E. SALIANO 148 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-2	JOHN BATTISTA 157 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-3	JOHN BATTISTA 165 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
5.16-1-4	KALNER BREVOUX LIVING TRUST 163 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-6	ZOLA V. MATAJO & MANUEL L. CHILLOGLU 173 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-8	CHARLES MARINA INC 807 SOUTH LAKE ROAD MAHOPAC, NY 10541
75.16-1-9	SOTEROS & RENE KAMOUSLIS 153 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-10	JAMES MCCABE PO BOX 472 BALDWIN PLACE, NY 10505
75.16-1-15	BREX BEACHAK 465 ROUTE 6 MAHOPAC, NY 10541
75.16-1-16	HELTOP MANOR REALTY CORP. 466 ROUTE 6 MAHOPAC, NY 10541
75.16-1-17	HELTOP MANOR REALTY CORP. 466 ROUTE 6 MAHOPAC, NY 10541
75.16-1-18	ACHILES DAVROS 441 ROUTE 6 MAHOPAC, NY 10541
75.16-1-19	FNB PROPERTIES, LLC 44 BLOOMER ROAD MAHOPAC, NY 10541
75.16-1-20	THOMAS & GENE SIMONE 150 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-21	THOMAS & GENE SIMONE 150 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-22	SCOTT NYGARD 427 ROUTE 6 MAHOPAC, NY 10541
75.16-1-23	SCOTT NYGARD 423 ROUTE 6 MAHOPAC, NY 10541
75.16-1-24	JACREY REALTY CORP. 421 ROUTE 6 MAHOPAC, NY 10541
75.16-1-27	NEIRA REAL ESTATE LLC 10 SOUTH WESSON LANE MAHOPAC, NY 10541
75.16-1-28	BOUAMEL & ROZALIE FLIP 5 BATTISTA DRIVE MAHOPAC, NY 10541
75.16-1-29	SANTA & ROBERT PORTINO 7 BATTISTA DRIVE MAHOPAC, NY 10541
75.16-1-30	THOMAS SIMONE 150 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-61	ANTHONY & ROSE FABIANO 154 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-60.1	JOHN PARK 7 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-60.2	JORGE & RUFFINA TEJADA 190 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.16-1-59	PAUL & KELLY HARRIS 15 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-58	ERNESTO & GLOMERAN LOPEZ 21 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-57	AYANA MORALES & ORAN NESEBET AYISU 27 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-56	MARK & LUBANG WHITERS 31 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-55	JOSHUA & SAMANTHA MOSER 37 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-54	JAMES & PATRICIA MOONBAIN 41 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-50	LAWRENCE & KATHLEEN KEANE 51 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-49	CARLEEN PROSSA 55 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-48	TIMOTHY OREN & KELLY HORAN 51 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-47	LOUIS & LINDA DAUDIO 65 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-46	JOSEPH & ROSEANN BRUSSO 69 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-45	MICHAEL & MARIANNE VICALI 73 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-44	VINCENT & ANNAME VAGGIO 81 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-43	JAMES & CAROLINE COOKE 140 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-42	JACOB & TRACY POSNAK 137 DALLIA DRIVE MAHOPAC, NY 10541

75.16-1-41	MATTHEW & CAROLYN TURRONE 133 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-20	NORBERT VOGL 6 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-21	DONALD K. & MEGAN M. HARTNETT 12 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-22	TOWN OF CARMEL 60 MCALPIN AVENUE MAHOPAC, NY 10541
75.16-1-23	DIANE ISSAH 22 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-24	HUNTER JAYON LLC 22 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-25	FRANK GIUNTI 30 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-26	WAYNE & SUSAN SPEAR 35 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-27	DOMENICK & LOUISE SACCHITELLO 44 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-28	FRANK & LISA DIAZDINO 45 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-29	JOHN & LINDA NAINNA 51 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-20	LINDA RODRIGUEZ & ERICA 52 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-21	KEVIN & MELBA DANRO 62 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-22	VALDIR KUNCA & BOHMIKA KUNCIA 63 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-23	PAQUETTA GEORGE BREV TRUST 74 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-24	HERBERT F. JR. & JANE M. HILLERY 75 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-25	JOHN & PHILIP DIAPOLI 83 ASTOR DRIVE MAHOPAC, NY 10541
75.16-1-26	BIRNS FAMILY BREV TRUST #1 5 SOUTH WESSON LANE MAHOPAC, NY 10541
75.16-1-27	NICOLE STEIN MICHAEL & BEALE 888 ROUTE 6 MAHOPAC, NY 10541
75.16-1-28	DAG ROUTE SIX, LLC PO BOX 834 MAHOPAC, NY 10541
75.16-1-29	ITALIAN AMERICAN CLUB INC PO BOX 83 MAHOPAC, NY 10541
75.16-1-30	ADRIANA CERQUERA PO BOX 782 ORSTON FALLS, NY 10019
75.16-1-31	TINA MARE RAPISARDA 85 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-32	JAMES & ROBERTA PAGANO 89 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-33	MICHAEL HART & DIANA SMOTHER 93 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-34	ROBERT & LIANA GERTZER 97 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-35	EUGENIA GARCIA PO BOX 797 MAHOPAC, NY 10541
75.16-1-36	JOHN & DONNA BENVIN 107 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-37	RICHARD WELZ 117 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-38	KENNETH & ROSEMARY WALDRON 123 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-39	HUGH & HELEN M. BERNHAIN 125 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-40	FARMER TRUST CRECITO 130 DALLIA DRIVE MAHOPAC, NY 10541
75.16-1-41	DEBOSTHAL ATAL & DEBOSTHAL WANDANA 131 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-42	RICHARD & DEBRA FASSO 137 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-43	RON & DARLENE LOVE GAFNI 137 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-44	KEVIN & CATHLEEN BROWNE 141 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-45	JOHN & MARGARET BRONINE 21 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-46	JENNIFER FISCHER 21 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-47	HYMAN REICHBACH BEVOZ TRUST 27 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-48	MARK & PATRIC LEFF 29 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-49	PATRIK M. & ALTHEA M. DALEY 31 NOTTINGHAM WAY MAHOPAC, NY 10541

75.16-1-29	JACK D. & ROBIN M. ZENDEK 33 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-30	DOUGLAS J. & MARGAU C. HONEY 37 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-31	ARTHUR & MARIA L. CERBONE 39 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-32	TERENCE & KRISTEN WOEKE 41 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-33	JOSEPH & CAROLANN LACOPARRA 43 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-34	JENNIFER A. & ANDREW T. DWYER 44 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-35	ELVIS & APRIL J. LUMIC 42 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-36	SCOTT M. ORONN 40 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-37	JAMES CLIBERTI & VERONICA FANELTA 38 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-38	ANTHONY & ANGILO DEMATEO 36 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-39	DAN & ANIENKA FADLENSKY 32 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-40	KENNETH L. & JANET SCHWIGLER 28 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-41	JEFFREY & ANTONIETTA WEAVER 26 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-42	MATTHEW & SAMANTHA A. CLARK 24 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-43	DONNA ROSSOMANDO 18 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-44	ADAM & LAN PHAM 16 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-45	JOSEPH M. & MARLENE S. CAMARCO-VOGL 14 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-46	PETER J. & TERESA M. CARABELLA 12 NOTTINGHAM WAY MAHOPAC, NY 10541
75.16-1-47	JEFFREY A. & KATHLEEN A. TUTTURI 8 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-48	KEVIN & HILARY FARFARON 13 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-49	ILL BENEVOLO 15 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-50	DIABATESTA FAMILY TRUST 17 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-51	BARBARA O'BRIEN 19 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-52	CHARLES M. & PAMELA E. BLECKER 21 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-53	DANIEL & JEAN MARIE SHERIDAN 23 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-54	KATHY SONENBERG 27 COVENTRY CIR MAHOPAC, NY 10541
75.16-1-55	NY CONF-LINC CT WEST DISTRICT ATIN AP CASTANO 2 SONDORW AVE WHITE PLAINS, NY 10606
75.16-1-56	MARIEE BUFTONE 34 COVENTRY CIR MAHOPAC, NY 10541

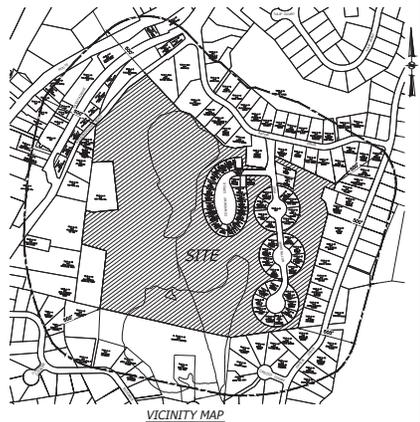
75.20-2-69	RICHARD & BRIGGETTE CERVONE 132 DALLIA DRIVE MAHOPAC, NY 10541
75.20-2-70	JAN HOLDINGS CORP 148 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.20-2-71	FARMER TRUST CRECITO PO BOX 2749 ADDISON, TX 75001
75.20-2-72	VERDINA NEW YORK INC PO BOX 2749 ADDISON, TX 75001
75.20-2-73	BUCKHOLLOW LLC 122 4 BAURELLEN COURT MAHOPAC, NY 10541
75.20-2-74	WILLIAM & LOUISE DE GASPERI 112 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.20-2-75	JOHN LUMENS REVOCABLE TRUST 100 BUCKS HOLLOW ROAD MAHOPAC, NY 10541
75.20-2-76	LINDA CARLUCCI 20 COVENTRY CIR MAHOPAC, NY 10541
75.20-2-77	JENNIFER FISCHER 21 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-32	DIANE SCHAVONE 64 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-31	JOSEPH & EBORAH KRINOC 68 DALLIA DRIVE MAHOPAC, NY 10541

75.20-1-13	LINDA M. WRODE 44 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-12	STEPHEN A. & MARY BETH WRABEL 50 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-11	MARIE A. REZZO 54 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-10	GILBERT & LUCAS BAKERSWILL 86 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-9	JOSEPH C. & JOHN G. MAGNITTA 60 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-8	GILBERT & LUCAS BAKERSWILL 86 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-7	ALFONSO MERLINO 90 BLOOMER ROAD MAHOPAC, NY 10541
75.20-1-6	STEPHEN MILLER 90 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-5	ANTHONY CHIARI & ERN COXEN 100 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-4	PARENT ESTATE PO BOX 398 MAHOPAC, NY 10541
75.20-1-3	MAREA T. & LEE M. DOBENS 108 DALLIA DRIVE MAHOPAC, NY 10541

75.20-1-25	ORAG H. & JENNIFER M. HETTINGER 113 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-24	DORIS & BERNARDO 116 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-23	DONALD A. & SALLY WESS 122 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-22	DEAN & MARTIN COYNE 126 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-21	PETER & VIBORE FOLEGNO 130 DALLIA DRIVE MAHOPAC, NY 10541
75.20-1-20	MICHAEL & EUNICE LAMELLE 134 DALLIA DRIVE MAHOPAC, NY 10541

75.20-1-13	ANDREW & ANGILO DEMATEO 36 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-39	DAN & ANIENKA FADLENSKY 32 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-40	KENNETH L. & JANET SCHWIGLER 28 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-41	JEFFREY & ANTONIETTA WEAVER 26 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-42	MATTHEW & SAMANTHA A. CLARK 24 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-43	DONNA ROSSOMANDO 18 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-44	ADAM & LAN PHAM 16 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-45	JOSEPH M. & MARLENE S. CAMARCO-VOGL 14 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-46	PETER J. & TERESA M. CARABELLA 12 NOTTINGHAM WAY MAHOPAC, NY 10541
75.20-1-47	JEFFREY A. & KATHLEEN A. TUTTURI 8 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-48	KEVIN & HILARY FARFARON 13 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-49	ILL BENEVOLO 15 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-50	DIABATESTA FAMILY TRUST 17 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-51	BARBARA O'BRIEN 19 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-52	CHARLES M. & PAMELA E. BLECKER 21 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-53	DANIEL & JEAN MARIE SHERIDAN 23 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-54	KATHY SONENBERG 27 COVENTRY CIR MAHOPAC, NY 10541
75.20-1-55	NY CONF-LINC CT WEST DISTRICT ATIN AP CASTANO 2 SONDORW AVE WHITE PLAINS, NY 10606
75.20-1-56	MARIEE BUFTONE 34 COVENTRY CIR MAHOPAC, NY 10541

LOCATION MAP
SCALE: 1"=500'



TAX MAP REFERENCE:
TOWN OF CARMEL TAX MAP
SECTION 75.20, BLOCK 2, LOT 68
ADDRESS:
BUCKS HOLLOW ROAD
MAHOPAC, NY 10541
AREA:
53.362 ACRES
DATUM:
VERTICAL:
HORIZONTAL: NAD 1983, NEW YORK STATE
PLANE COORDINATE SYSTEM,
EAST ZONE

SUBMISSION REFERENCES:
"MAP OF HUNTERS' ROOF" FILED IN THE
PUTNAM COUNTY CLERK'S OFFICE ON
MARCH 28, 1988, AS MAP NO. 2298.

5	05-02-22	DRAINAGE REVISION PER INFILTRATION TEST
4	02-25-22	PER PLANNING BOARD 2-10-22
3	02-07-22	PER 2-3-22 EOB MEETING
2	01-25-22	PER PW MTC 1-11-22, PER EOB & PW SUBMISSION
1	11-15-21	PER PW MTC 9-22-21

REVISION	DATE	DESCRIPTION
5	05-02-22	DRAINAGE REVISION PER INFILTRATION TEST
4	02-25-22	PER PLANNING BOARD 2-10-22
3	02-07-22	PER 2-3-22 EOB MEETING
2	01-25-22	PER PW MTC 1-11-22, PER EOB & PW SUBMISSION
1	11-15-21	PER PW MTC 9-22-21

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
232 North Main Street
New City, New York 10956
Tel: (845) 634-4544
Fax: (845) 834-5543
E-mail: info@anzy.com
Web: www.ANZY.com

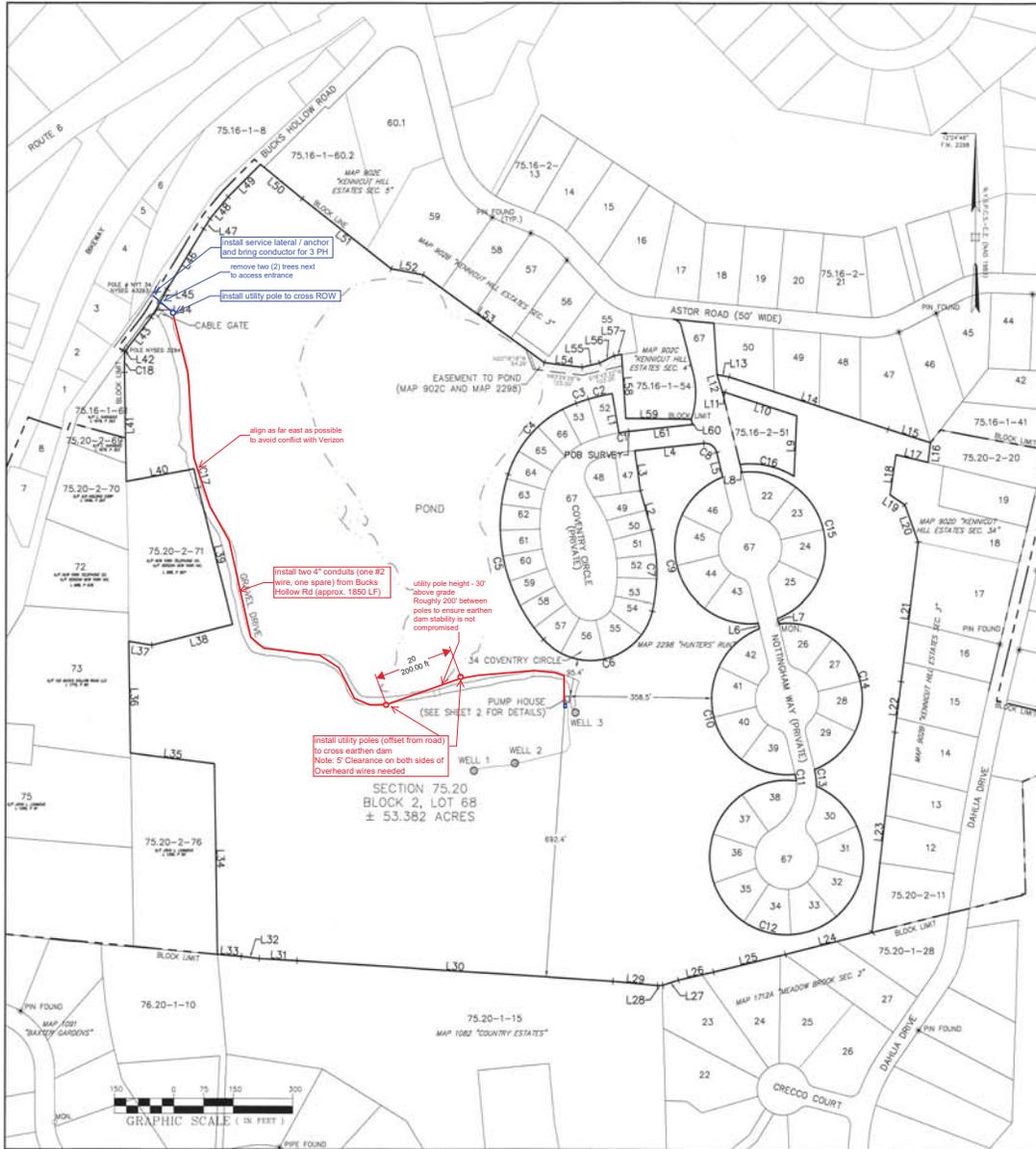
PROJECT:
MAHOPAC WELLS 1, 2 & 3

TOWN OF CARMEL, NEW YORK

LOCATION MAP

DRAWN BY:	IS	CHECKED BY:	JRA
DATE:	AUGUST 27, 2021	SCALE:	AS SHOWN
PROJECT NO:	4870	DRAWING NO:	LM





COURSE TABLES

CURVE	ANGLE	ARC LENGTH	CHORD LENGTH	CHORD BEARING	FIELD BOOK
C1	435.00°	26.00'	25.00'	88°18'14"W	1227.15'
C2	320.00°	61.00'	45.00'	53°03'02"W	1244.25'
C3	415.00°	33.00'	31.00'	51°42'11"W	1233.00'
C4	280.00°	220.00'	217.73'	84°42'31"W	1272.49'
C5	430.00°	483.00'	431.26'	107°11'51"W	1329.20'
C6	160.00°	148.83'	283.15'	90°28'22"E	1120.64'
C7	430.00°	43.00'	39.00'	80°48'20"W	1271.02'
C8	300.00°	245.70'	202.50'	103°02'24"E	1242.00'
C9	300.00°	245.70'	202.50'	51°34'23"E	1243.10'
C10	190.00°	245.70'	176.10'	51°34'23"E	1243.10'
C11	125.00°	18.18'	18.14'	51°02'02"E	1243.11'
C12	175.00°	18.18'	18.15'	130°03'10"E	1243.11'
C13	175.00°	42.42'	42.31'	103°02'24"E	1243.11'
C14	190.00°	245.70'	202.50'	81°34'23"W	1243.11'
C15	190.00°	245.70'	176.10'	81°34'23"W	1243.11'
C16	310.00°	183.19'	138.44'	37°42'17"E	1074.00'
C17	300.00°	483.00'	431.26'	81°34'23"W	1243.11'
C18	488.00°	11.43'	11.43'	202°28'28"E	1243.11'

LINE	BEARING	LENGTH
L1	N07°48'43"W	100.00'
L2	S13°02'47"W	100.10'
L3	N07°48'43"W	100.00'
L4	N89°59'33"E	175.00'
L5	S13°02'47"W	100.10'
L6	N07°48'43"W	100.00'
L7	S13°02'47"W	100.10'
L8	N07°48'43"W	100.00'
L9	N07°48'43"W	100.00'
L10	N07°48'43"W	100.00'
L11	N07°48'43"W	100.00'
L12	N17°10'20"W	49.37'
L13	N07°48'43"W	100.00'
L14	S13°02'47"W	100.10'
L15	S13°02'47"W	100.10'
L16	N07°48'43"W	100.00'
L17	N07°48'43"W	100.00'
L18	N07°48'43"W	100.00'
L19	N07°48'43"W	100.00'
L20	N07°48'43"W	100.00'
L21	N07°48'43"W	100.00'
L22	N07°48'43"W	100.00'
L23	N07°48'43"W	100.00'
L24	N07°48'43"W	100.00'
L25	N07°48'43"W	100.00'
L26	N07°48'43"W	100.00'
L27	N07°48'43"W	100.00'
L28	N07°48'43"W	100.00'
L29	N07°48'43"W	100.00'
L30	N07°48'43"W	100.00'
L31	N07°48'43"W	100.00'
L32	N07°48'43"W	100.00'
L33	N07°48'43"W	100.00'
L34	N07°48'43"W	100.00'
L35	N07°48'43"W	100.00'
L36	N07°48'43"W	100.00'
L37	N07°48'43"W	100.00'
L38	N07°48'43"W	100.00'
L39	N07°48'43"W	100.00'
L40	N07°48'43"W	100.00'
L41	N07°48'43"W	100.00'
L42	N07°48'43"W	100.00'
L43	N07°48'43"W	100.00'
L44	N07°48'43"W	100.00'
L45	N07°48'43"W	100.00'
L46	N07°48'43"W	100.00'
L47	N07°48'43"W	100.00'
L48	N07°48'43"W	100.00'
L49	N07°48'43"W	100.00'
L50	N07°48'43"W	100.00'
L51	N07°48'43"W	100.00'
L52	N07°48'43"W	100.00'
L53	N07°48'43"W	100.00'
L54	N07°48'43"W	100.00'
L55	N07°48'43"W	100.00'
L56	N07°48'43"W	100.00'
L57	N07°48'43"W	100.00'
L58	N07°48'43"W	100.00'
L59	N07°48'43"W	100.00'
L60	N07°48'43"W	100.00'
L61	N07°48'43"W	100.00'
L62	N07°48'43"W	100.00'
L63	N07°48'43"W	100.00'
L64	N07°48'43"W	100.00'
L65	N07°48'43"W	100.00'
L66	N07°48'43"W	100.00'
L67	N07°48'43"W	100.00'
L68	N07°48'43"W	100.00'
L69	N07°48'43"W	100.00'
L70	N07°48'43"W	100.00'
L71	N07°48'43"W	100.00'
L72	N07°48'43"W	100.00'
L73	N07°48'43"W	100.00'
L74	N07°48'43"W	100.00'
L75	N07°48'43"W	100.00'
L76	N07°48'43"W	100.00'
L77	N07°48'43"W	100.00'
L78	N07°48'43"W	100.00'
L79	N07°48'43"W	100.00'
L80	N07°48'43"W	100.00'
L81	N07°48'43"W	100.00'
L82	N07°48'43"W	100.00'
L83	N07°48'43"W	100.00'
L84	N07°48'43"W	100.00'
L85	N07°48'43"W	100.00'
L86	N07°48'43"W	100.00'
L87	N07°48'43"W	100.00'
L88	N07°48'43"W	100.00'
L89	N07°48'43"W	100.00'
L90	N07°48'43"W	100.00'
L91	N07°48'43"W	100.00'
L92	N07°48'43"W	100.00'
L93	N07°48'43"W	100.00'
L94	N07°48'43"W	100.00'
L95	N07°48'43"W	100.00'
L96	N07°48'43"W	100.00'
L97	N07°48'43"W	100.00'
L98	N07°48'43"W	100.00'
L99	N07°48'43"W	100.00'
L100	N07°48'43"W	100.00'

LOCATION:
Latitude/Longitude: 41°21'46.14", -73°44'36.84" (driveway entrance)

Address: (No #) Bucks Hollow Road, Mahopac, NY 10541
(opposite Mahopac Marine, 177 Bucks Hollow Road)

Tax ID: Sect. 75.20, Block 2, Lot 68
Town of Carmel, Putnam County, New York

REFERENCES:

1. Tax Maps, Town of Carmel, Putnam County, New York; Sheets 75.16 and 75.20; revised through February 25, 2013.
2. Filed Map No. 2298 (Sheet 1 of 2) and 2298A (Sheet 2 of 2) entitled "Subdivision Map of Hunters' Run Subsite in the Town of Carmel, Putnam County, New York"; filed in the Putnam County Clerk's Office on March 26, 1995.
3. Utility Line Easement Agreement from Aphrodite Acquisitions, Inc. to Forest Park Water Company and Buckhollow Sewer Corporation; dated April 12, 1988; recorded in Deed Book 1004, page 285 et seq. on April 18, 1988.
4. Deed from Aphrodite Acquisitions, Inc. to Hunter's Run Homeowners Association, Inc.; dated April 14, 1988; recorded in Deed Book 1004, page 214 et seq. on April 18, 1988.
5. NFP Flood Insurance Rate Map Number 36079C02266, effective March 4, 2015.

FLOOD HAZARDS:
The surveyed lot is situated in "areas determined to be outside the 0.2% annual chance floodplain" as designated by FEMA. More detailed flood information may be available if a Flood Insurance Study covers this area.

SURVEY NOTES:
This survey was prepared to support the design and permitting of improvements to the public water facilities. This survey was conducted without the benefit of a title report and is subject to the paramount rights of the public to road rights-of-way, easements, covenants, restrictions, reservations, agreements and other matters of record which a title search may disclose.

The property lines within Hunters Run subdivision are related mathematically to Kennicut Hill Estates Subdivision on the north and east. Field Maps to the south don't exactly match our geometry. This survey doesn't attempt to resolve these differences.

The location of Nottingham Way, Coventry Circle and Buckhollow Road are per Filed Map (Ref. 2). Road locations and widths may be different if described in more recent road dedication or Right-of-Way documents.

Offset dimensions are for the finished exterior wall of the pump house building and are perpendicular to offset lines. They are not intended to be used for construction of fences or any other improvements.

The undersigned is not qualified to make any determination of the existence or non-existence of wetlands and/or contamination, therefore, no statement is made or implied, nor should it be construed that any statement is being made by the fact that no evidence of wetlands or contamination is shown. This survey does not show zoning or any other land use restrictions.

Utility locations shown herein are based on above-ground observations only. The type and location of utilities are not guaranteed to be accurate or all-inclusive. The user of this survey is responsible for making his own determinations as to the type, location and suitability of utilities as they may be necessary.

This survey was made per the record description and evidence of position using GPS and conventional survey methods. The conventional survey instrument was calibrated per NISA S11-6 on February 14, 2017 and recorded with Office of Weights and Measures, State of New Jersey.

Horizontal datum is New York State Plane Coordinate System, East Zone (NAD 1983) and elevations are North American Vertical Datum 1988 feet computed using GEG00128 as determined by Global Positioning Systems data collected on February 4, 2016, transformed to NAD 83(2011) epoch 2010.00 by NOAA with OPUS software (pages 1.37.8551.pdf 1.99.2). Grid/ground conversion factor is 0.999932001. Dimensions for property lines and building offset distances are in a ground system, and varies slightly from the properties of elements in the electronic AutoCAD file.

CERTIFICATION:
The word certify, as used herein, is understood to be an expression of professional opinion by the surveyor, which is based on his best knowledge, information and belief. As such, it is neither a guarantee nor a warranty, expressed or implied.

I hereby certify that this survey was prepared under my direct supervision and that, to the best of my knowledge, this map is a true and correct representation of actual conditions as of June 20, 2017. This certification is made only to the parties listed below and is not transferable to other parties.

This certification is only valid for this map and copies thereof if said maps bear the seal of the surveyor whose signature appears herein. The original signed and sealed document is the document of record. If digital information is also supplied, it is done so for informational purposes only.

CERTIFIED TO:
Suez Water New York Inc.
Richard Gardell
Professional Land Surveyor
N.J. Lic. 36729, N.Y. Lic. 506611

(UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7206(2) OF THE NEW YORK STATE EDUCATION LAW.)

Prepared only for internal use by Suez, not to be relied upon by third parties.



Gardell Land Surveying, LLC
31 Teller Avenue, Elmwood Park, NY 10523
Phone: 914-298-1421
N.J. Certificate of Authorization #JAC428128200
N.Y. Certificate of Authorization #0512980



Boundary Survey Prepared for
Suez Water New York Inc.
of Suez Water New York Inc.
Mahopac Wells and Pump Station
Section 75.20, Block 2, Lot 68
Town of Carmel, Putnam County, New York

Richard Gardell
Professional Land Surveyor
N.J. Lic. 36729, N.Y. Lic. 506611

NO.	DATE	DESCRIPTION	BY	SCALE	DATE	CLIENT/JOB#	SHEET NO.
				1"=150' @ 30'	July 5, 2017		1 of 2



April 26, 2023
Revised May 9, 2023

Re: Schoenbeck
252 West Lake Blvd
Mahopac, NY 10541
Tax Map #: 64.16-1-31

Robert Laga PE, Chairman & members of the ECB,

My Client's Current ECB Permit for this Address was approved on March 3, 2022, and will expire on September 3, 2023.

My client wants to make some minor revisions to the Site Plan, that reduces the total amount of Impervious Surfaces. They no longer want to build a large pool with a stone pool deck and stone walls around. Instead, they want to purchase a Prefab Shipping Container Pool and attach it to the Wood Deck at the House. The Wood Deck has increased slightly, but overall, the Impervious Surfaces have decreased by 1,857 SF. In digging some test holes, we have discovered a lot of ledge on the site in the Original Proposed Pool location, my Client has decided a Pre-Fab Pool attached to the wood deck will work for them, and it will reduce the impervious surfaces.

Currently, no work has started on the Deck or the Pool. My client will be building the Deck in the coming month and is ordering a Prefab Container Pool.

Since the Impervious Surface has decreased, we can decrease the size of the Rain Gardens and combine Rain Gardens 1A & 1B into New Rain Garden #1. Rain Garden #2 will remain as is.

Rose Trombetta has indicated that you would like us to return to the ECB Board. We are submitting the Revised Site Plan and this Letter with Calculations. At the same time, since we are returning to the ECB Board, we would like to ask for an extension to our Current Approval. Upon further discussion with the Shipping Container Pool Companies, it is a 4-to-6-month lead time to get the Pool on site.

The Site Plan and Calculations have been revised to show that we still meet the Rain Garden Requirements.

Calculations and Diagrams are shown below.

If there are any further questions, please let me know.

Sincerely,

Martin Stejskal, AIA, NCARB



Here is the breakdown of the Revised Square Footages of the three areas as previously indicated, (House, Porch, Pool & Pool Deck, and the Wood Decks).

Previously Approved 3/2/2022:

House:	5682 SF (Front Portion 1628 SF as indicated below, remainder 4054 SF)
Existing Back Porch,	
Pool & Pool Deck:	2010 SF
Stone Steps, Wall & Walk:	689 SF
Wood Deck:	683 SF
Wood Deck:	96 SF
TOTAL:	<u>9160 SF</u>

Proposed 4/26/2023:

House:	5682 SF (Front Portion 1628 SF as indicated below, remainder 4054 SF)
Existing Back Porch	390 SF
Wood Deck, Container Pool & Spiral Stair:	1163 SF
Wood Deck:	68 SF
TOTAL:	7303 SF

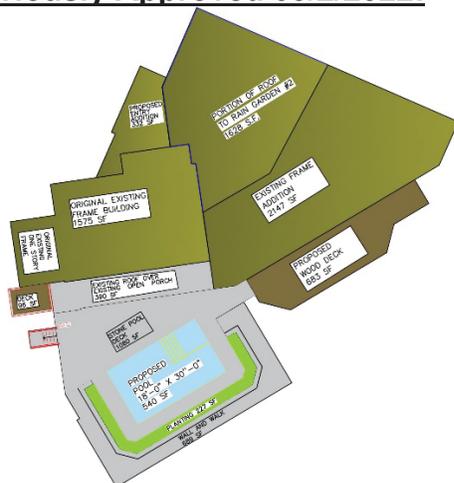
Approved 3/2/2022:

Total Drainage Area	= 9160 SF
Rain Garden #1A Drainage Area	= 2393 SF
Rain Garden #1B Drainage Area	= 5139 SF
Rain Garden #2 Drainage Area	= 1628 SF (Front Portion of House as indicated in diagram)

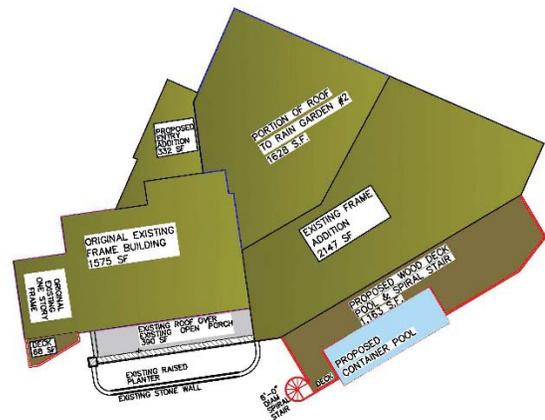
Proposed 4/26/2023:

Total Drainage Area	= 7303 SF
Rain Garden #1 Drainage Area	= 5675 SF (Rain Gardens #1A and #1B combined into RG#1)
Rain Garden #2 Drainage Area	= 1628 SF (Front Portion of House as indicated in diagram) (No Change)

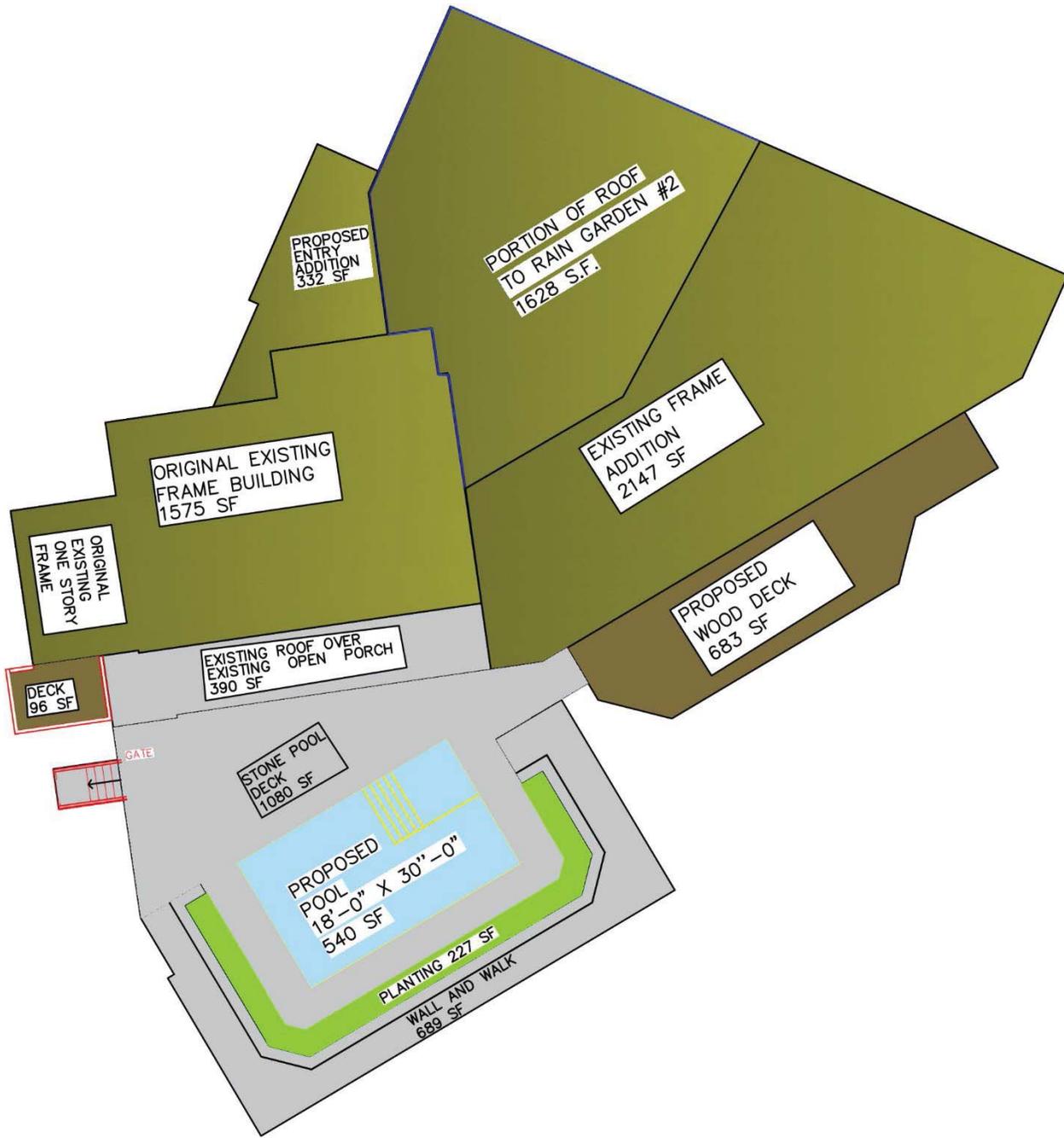
Previously Approved 03/2/2022:



Proposed 04/26/2023: (reduced Impervious)



Rain Garden Calculations. (Attached here for clarity)



PREVIOUS APPROVED: 03/03/2022: RAIN GARDEN #1A

RAIN GARDEN CALCULATIONS:

- TOTAL DRAINAGE AREA:
- DRAINAGE AREA RAIN GARDEN #1A
- SOIL TYPE:
- GARDEN DEPTH:

9160 SF.
2393 SF.
PAXTON COMPLEX PnB
12"

- CALCULATION: (RAIN GARDEN #1A)

$$P = 3.1 \text{ [RAINFALL \# @ 90\%]}$$

$$RV = 0.05 + 0.009(100) = .95$$

$$A = 2,393 \text{ SQFT [AREA OF DRAINAGE]}$$

WQV= WATER QUALITY VOLUME

$$WQV = \frac{(P)(RV)(A)}{12} = \frac{(3.1)(.95)(2393)}{12} = 587 \text{ CFT}$$

$$\mathbf{ARG = 605 \text{ SQFT [RAIN GARDEN AREA \#1A]}}$$

$$DSM = 1.5 \text{ FT [SOIL MEDIA DEPTH]}$$

$$PSM = 0.20 \text{ [SOIL MEDIA POROSITY]}$$

VSM = SOIL MEDIA VOLUME

$$VSM = (ARG)(DSM)(PSM) = (605 \text{ SQFT})(1.5 \text{ FT})(0.20) = 181.5$$

$$DDL = 1.0 \text{ FT [DRAINAGE LAYER DEPTH]}$$

$$PDL = 0.40 \text{ [DRAINAGE LAYER POROSITY]}$$

VDL = DRAINAGE LAYER VOLUME

$$VDL = (ARG)(DDL)(PDL) = (605)(1.0)(0.4) = 242$$

$$PD = 1.0 \text{ FT [PONDING DEPTH]}$$

$$WQV < VSM + VDL + (PD \times ARG)$$

$$587 < 181.5 + 242 + 605$$

$$587 < 1,028.5$$

THEREFORE, THE RAIN GARDEN #1A AREA OF 605 SF. IS SUFFICIENT.

ALL UNDERGROUND PIPING WILL BE 6" PVC.

PREVIOUS APPROVED: 03/03/2022: RAIN GARDEN #1B

RAIN GARDEN CALCULATIONS:

- TOTAL DRAINAGE AREA:
- DRAINAGE AREA RAIN GARDEN #1B
- SOIL TYPE:
- GARDEN DEPTH:

9160 SF.
5139 SF.
PAXTON COMPLEX PnB
12"

- CALCULATION: (RAIN GARDEN #1B)

$$P = 3.1 \text{ [RAINFALL \# @ 90\%]}$$

$$RV = 0.05 + 0.009(100) = .95$$

$$A = 5,139 \text{ SQFT [AREA OF DRAINAGE]}$$

WQV= WATER QUALITY VOLUME

$$WQV = \frac{(P)(RV)(A)}{12} = \frac{(3.1)(.95)(5139)}{12} = 1,261 \text{ CFT}$$

$$\mathbf{ARG = 920 \text{ SQFT [RAIN GARDEN AREA \#1B]}}$$

$$DSM = 1.5 \text{ FT [SOIL MEDIA DEPTH]}$$

$$PSM = 0.20 \text{ [SOIL MEDIA POROSITY]}$$

VSM = SOIL MEDIA VOLUME

$$VSM = (ARG)(DSM)(PSM) = (920 \text{ SQFT})(1.5 \text{ FT})(0.20) = 276$$

$$DDL = 1.0 \text{ FT [DRAINAGE LAYER DEPTH]}$$

$$PDL = 0.40 \text{ [DRAINAGE LAYER POROSITY]}$$

VDL = DRAINAGE LAYER VOLUME

$$VDL = (ARG)(DDL)(PDL) = (920)(1.0)(0.4) = 368$$

$$PD = 1.0 \text{ FT [PONDING DEPTH]}$$

$$WQV < VSM + VDL + (PD \times ARG)$$

$$1,261 < 276 + 368 + 920$$

$$1,261 < 1564$$

THEREFORE, THE RAIN GARDEN #1B AREA OF 920 SF. IS SUFFICIENT.

ALL UNDERGROUND PIPING WILL BE 6" PVC.

PREVIOUS APPROVED: 03/03/2022: RAIN GARDEN #2

RAIN GARDEN CALCULATIONS:

- TOTAL DRAINAGE AREA:
- DRAINAGE AREA RAIN GARDEN #2
- SOIL TYPE:
- GARDEN DEPTH:
- **CALCULATION: (RAIN GARDEN #2)**

9160 SF.
1628 SF.
PAXTON COMPLEX PnB
12"

$$P = 3.1 \text{ [RAINFALL \# @ 90\%]}$$

$$RV = 0.05 + 0.009(100) = .95$$

$$A = 1,628 \text{ SQFT [AREA OF DRAINAGE]}$$

WQV= WATER QUALITY VOLUME

$$WQV = \frac{(P)(RV)(A)}{12} = \frac{(3.1)(.95)(1628)}{12} = 399.5 \text{ CFT}$$

$$\mathbf{ARG = 348 \text{ SQFT [RAIN GARDEN AREA \#2]}}$$

$$DSM = 1.5 \text{ FT [SOIL MEDIA DEPTH]}$$

$$PSM = 0.20 \text{ [SOIL MEDIA POROSITY]}$$

VSM = SOIL MEDIA VOLUME

$$VSM = (ARG)(DSM)(PSM) = (348 \text{ SQFT})(1.5 \text{ FT})(0.20) = 104.4$$

$$DDL = 1.0 \text{ FT [DRAINAGE LAYER DEPTH]}$$

$$PDL = 0.40 \text{ [DRAINAGE LAYER POROSITY]}$$

VDL = DRAINAGE LAYER VOLUME

$$VDL = (ARG)(DDL)(PDL) = (348)(1.0)(0.4) = 139.2$$

$$PD = 1.0 \text{ FT [PONDING DEPTH]}$$

$$WQV < VSM + VDL + (PD \times ARG)$$

$$399.5 < 104.4 + 139.2 + 348$$

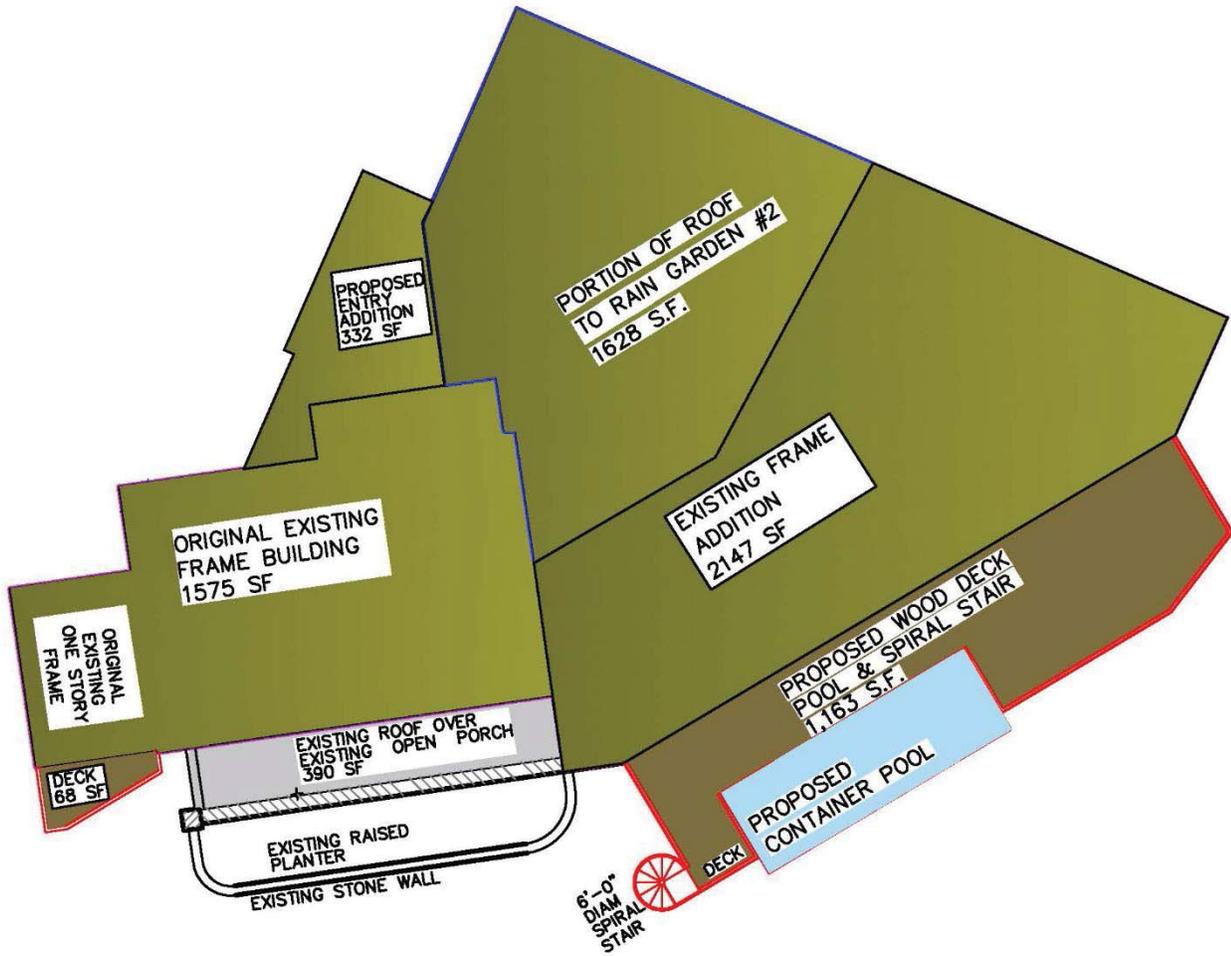
$$399.5 < 591.6$$

THEREFORE, THE RAIN GARDEN #2 AREA OF 348 SF. IS SUFFICIENT.

ALL UNDERGROUND PIPING WILL BE 6" PVC.

PROPOSED 04/26/2023:

Rain Garden Calculations. (Attached here for clarity)



Proposed 04/26/2023: RAIN GARDEN #1

RAIN GARDEN CALCULATIONS:

- TOTAL DRAINAGE AREA:
- DRAINAGE AREA RAIN GARDEN #1
- SOIL TYPE:
- GARDEN DEPTH:

7303 SF.
5675 SF.
PAXTON COMPLEX PnB
12"

- CALCULATION: (RAIN GARDEN #1)

$$P = 3.1 \text{ [RAINFALL \# @ 90\%]}$$

$$RV = 0.05 + 0.009(100) = .95$$

$$A = 5,675 \text{ SQFT [AREA OF DRAINAGE]}$$

WQV= WATER QUALITY VOLUME

$$WQV = \frac{(P)(RV)(A)}{12} = \frac{(3.1)(.95)(5675)}{12} = 1393 \text{ CFT}$$

$$\mathbf{ARG = 940 \text{ SQFT [RAIN GARDEN AREA \#1]}}$$

$$DSM = 1.5 \text{ FT [SOIL MEDIA DEPTH]}$$

$$PSM = 0.20 \text{ [SOIL MEDIA POROSITY]}$$

VSM = SOIL MEDIA VOLUME

$$VSM = (ARG)(DSM)(PSM) = (940 \text{ SQFT})(1.5 \text{ FT})(0.20) = 282$$

$$DDL = 1.0 \text{ FT [DRAINAGE LAYER DEPTH]}$$

$$PDL = 0.40 \text{ [DRAINAGE LAYER POROSITY]}$$

VDL = DRAINAGE LAYER VOLUME

$$VDL = (ARG)(DDL)(PDL) = (940)(1.0)(0.4) = 376$$

$$PD = 1.0 \text{ FT [PONDING DEPTH]}$$

$$WQV < VSM + VDL + (PD \times ARG)$$

$$1393 < 282 + 376 + 940$$

$$1,393 < 1,598$$

THEREFORE, THE RAIN GARDEN #1 AREA OF 940 SF. IS SUFFICIENT.

ALL UNDERGROUND PIPING WILL BE 6" PVC.

Proposed 04/26/2023: RAIN GARDEN #2 (NO CHANGE)

RAIN GARDEN CALCULATIONS:

- TOTAL DRAINAGE AREA:
- DRAINAGE AREA RAIN GARDEN #2
- SOIL TYPE:
- GARDEN DEPTH:
- **CALCULATION: (RAIN GARDEN #2)**

7303 SF.
1628 SF.
PAXTON COMPLEX PnB
12"

$$P = 3.1 \text{ [RAINFALL \# @ 90\%]}$$

$$RV = 0.05 + 0.009(100) = .95$$

$$A = 1,628 \text{ SQFT [AREA OF DRAINAGE]}$$

WQV= WATER QUALITY VOLUME

$$WQV = \frac{(P)(RV)(A)}{12} = \frac{(3.1)(.95)(1628)}{12} = 399.5 \text{ CFT}$$

$$\mathbf{ARG = 348 \text{ SQFT [RAIN GARDEN AREA \#2]}}$$

$$DSM = 1.5 \text{ FT [SOIL MEDIA DEPTH]}$$

$$PSM = 0.20 \text{ [SOIL MEDIA POROSITY]}$$

VSM = SOIL MEDIA VOLUME

$$VSM = (ARG)(DSM)(PSM) = (348 \text{ SQFT})(1.5 \text{ FT})(0.20) = 104.4$$

$$DDL = 1.0 \text{ FT [DRAINAGE LAYER DEPTH]}$$

$$PDL = 0.40 \text{ [DRAINAGE LAYER POROSITY]}$$

VDL = DRAINAGE LAYER VOLUME

$$VDL = (ARG)(DDL)(PDL) = (348)(1.0)(0.4) = 139.2$$

$$PD = 1.0 \text{ FT [PONDING DEPTH]}$$

$$WQV < VSM + VDL + (PD \times ARG)$$

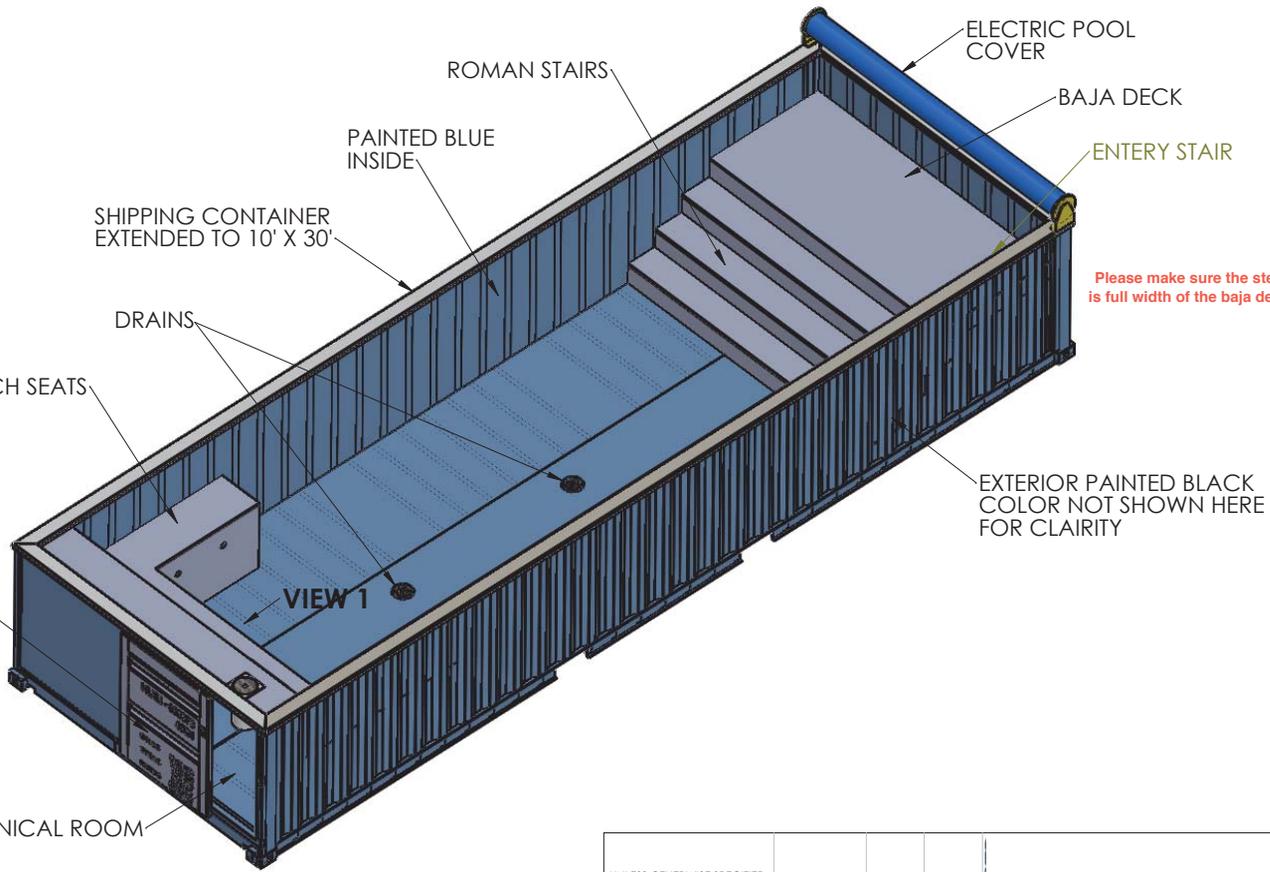
$$399.5 < 104.4 + 139.2 + 348$$

$$399.5 < 591.6$$

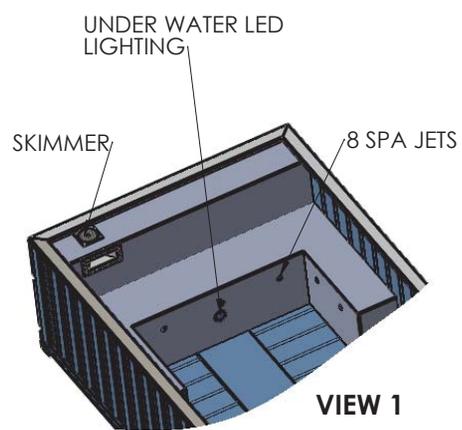
THEREFORE, THE RAIN GARDEN #2 AREA OF 348 SF. IS SUFFICIENT.

ALL UNDERGROUND PIPING WILL BE 6" PVC.

**INTERIOR LINED
W/GELFLEX ALPHATIC
UREA WATER
PROOFING**



Please make sure the step is full width of the baja deck



VIEW 1

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	ART 12/02/20
TOLERANCES:	CHECKED	
FRACTIONAL ± 1/16"	ENG APPR.	
	MFG APPR.	
	Q.A.	
INTERPRET GEOMETRIC TOLERANCING PER:		
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF 204 CONTAINER HOMES & POOLS ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF 204 CONTAINER HOMES & POOLS IS PROHIBITED.

TITLE:
**30' X 10' SHIPPING
CONTAINER POOL**

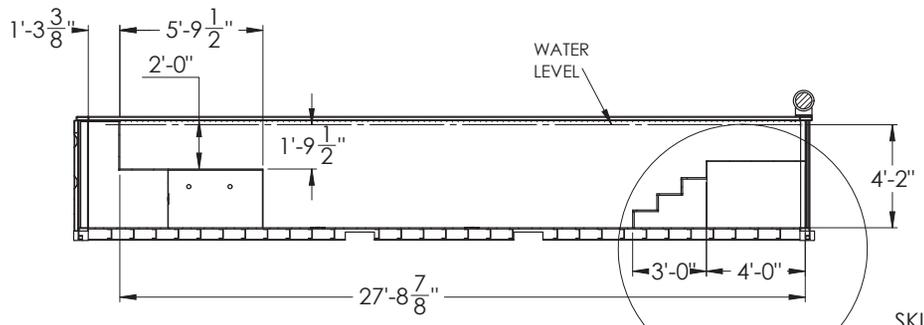
SIZE	DWG. NO.	REV
B		9
SCALE: 1:100		WEIGHT:
SHEET 1 OF 2		

4

3

2

1

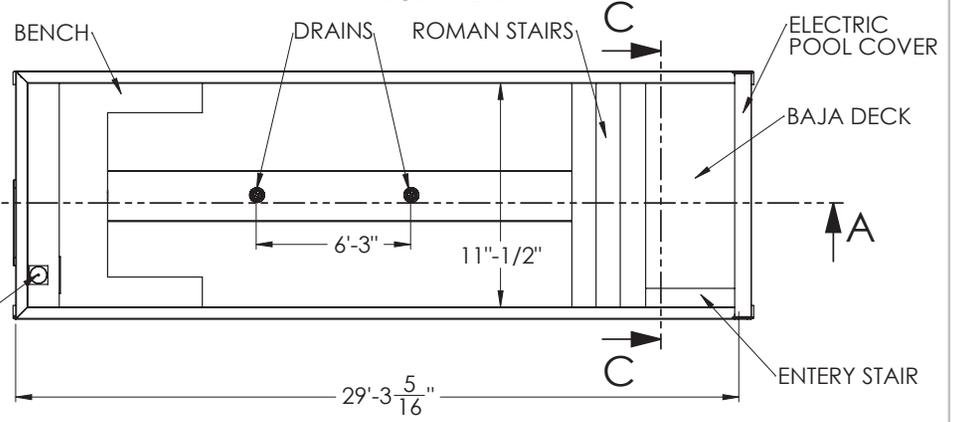


SECTION A-A

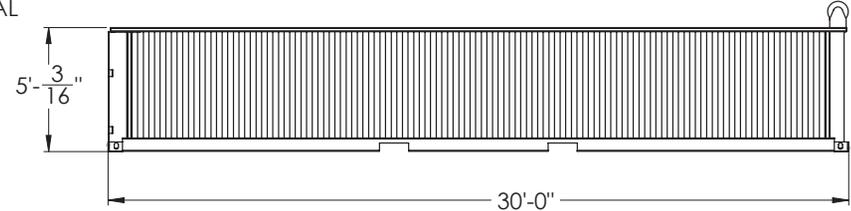
SCALE 1 : 60

B

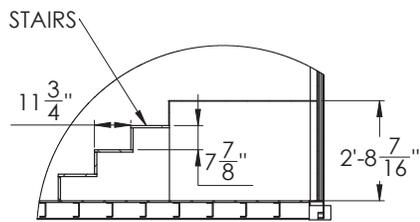
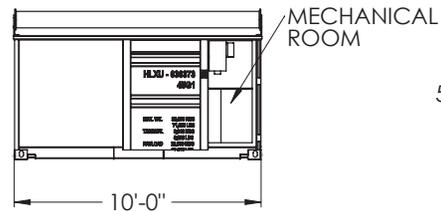
TOP VIEW



SIDE VIEW

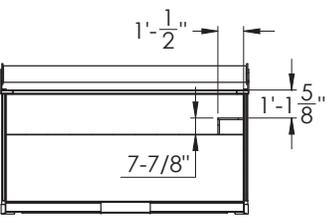


REAR VIEW



DETAIL B

SCALE 1 : 40



SECTION C-C

SCALE 1 : 60

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16"	NAME	DATE	TITLE: 30' X 10' SHIPPING CONTAINER POOL DETAILS	
	DRAWN	ART		12/02/20
	CHECKED			
	ENG APPR.			
INTERPRET GEOMETRIC TOLERANCING PER:	MFG APPR.		SIZE DWG. NO.	
	Q.A.			REV 9
MATERIAL	 CDS Compass Drafting Services Over 25 years of professional design experience		SCALE: 1:100	
FINISH			WEIGHT:	
DO NOT SCALE DRAWING			SHEET 2 OF 2	

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF 204 CONTAINER HOMES & POOLS ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF 204 CONTAINER HOMES & POOLS IS PROHIBITED.

4

3

2

1

B

B

A

A