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TOWN OF CARMEL
PLANNING BOARD



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

MICHAEL CARNAZZA
*Director of Code
Enforcement*

RICHARD FRANZETTI, P.E.
Town Engineer

PATRICK CLEARY,
AICP, CEP, PP, LEED AP
Town Planner

PLANNING BOARD AGENDA
MARCH 10, 2022 – 7:00 P.M.

TAX MAP # PUB. HEARING MAP DATE COMMENTS

PUBLIC HEARING

- | | | | | |
|-----------------------------------------------------------------------------------|------------|---------|---------|-----------|
| 1. Suez Water New York Inc – Mahopac Wells -
150' southwest of Coventry Circle | 75.20-2-68 | 3/10/22 | 2/25/22 | Site Plan |
|-----------------------------------------------------------------------------------|------------|---------|---------|-----------|

SITE PLAN

- | | | | | |
|-----------------------------------------------------------------------|-----------|--|--------|-----------|
| 2. Suez Water New York Inc – London Bridge Wells -
39 Brook Street | 64.7-1-10 | | 3/1/22 | Site Plan |
| 3. Suez Water New York Inc – Geymer Wells -
70 Geymer Drive | 75.13-1-6 | | 3/1/22 | Site Plan |

MISCELLANEOUS

- | | | | | |
|-----------------------|--|--|--|--|
| 4. Minutes – 01/26/22 | | | | |
|-----------------------|--|--|--|--|



ATZL, NASHER & ZIGLER P.C.

ENGINEERS - SURVEYORS - PLANNERS

Web: www.anzny.com

February 25, 2022

Planning Board
Town of Carmel
60 McAlpin Avenue
Mahopac, NY 10541
Attn: Craig Paeprer, Chairman

Re: Suez Water (Mahopac Wells 1,2 &3)
Tax Lot 75.20-2-68

Dear Chairman Paeprer and Honorable Board Members,

The following is our response to Patrick Cleary, AICP, CEP, PP, LEED AP of Cleary Consulting, letter dated February 10, 2022:

1. Comment: The Applicant has clarified that the emergency generator is required by the Putnam County Department of Health and cannot be relocated off-site. To mitigate concerns about views of the generator, it will be painted to match the color of the new PFAS building. The Applicant believes that when painted to match the PFAS building, the generator will blend into the existing woodland.

Response: No response required.

2. Comment: In response to the request by the Board, the Applicant will bring color samples to the Planning Board meeting for review.

Response: No response required.

The following is our response to Michael G. Carnazza, Director of Code Enforcement for the Town of Carmel, letter dated February 10, 2022:

1. Comment: The applicants propose to add a GAC Treatment Facility Building to the water treatment facility off Buckshollow Rd. in Mahopac.

Response: No response required.

2. Comment: Code §156-37C requires "A landscaped buffer area at least 10 feet in width and six feet in height shall be provided and maintained along all property lines to satisfactorily screen public utility substations and any other buildings from surrounding uses of land". The Planning Board should look closely at this site as the entire operation is in the backyards of Coventry Circle and Nottingham Way.

Response: No response required.

3. Comment: Is the Hunter's Run H.O.A. aware of this project? The work is being done on the Common Space for the Hunter's Run Condominium complex, therefore, the H.O.A. should be made aware, and have all issues ironed out with them before the public hearing. If this is the case, a letter from the H.O.A. stating their consent to the proposed structures and amenities should be made part of the file.

Response: Letter from Hunter's Run H.O.A. will be supplied to the Town.

4. Comment: Why is there a 2' Fire Pit on this property? Did the H.O.A. allow this on the common area?

Response: The fire pit indicated on the drawing is completely outside of the area utilized by Suez at the Mahopac well site, therefore we have no knowledge of its origin. Suez has informed HOA chairmen Mr. Ken Schweigler about the presence of the fire pit and he has responded that the HOA has no record of its approval. We assume the HOA will address any further action related to the fire pit at the site.

5. Comment: Referral to the ECB, Fire Department and Putnam County Dept. of Health are required by code.

Response: No response required.

The following is our response to Richard J. Franzetti, P.E, letter dated February 4, 2022:

General Comments

1. Comment: The following referrals are required:
- a. New York State Department of Environmental Conservation (NYSDEC).
 - b. Putnam County Department of Health (PCDOH).
 - c. The Town of Carmel Environmental Conservation Board (ECB).
 - d. The Town of Carmel Highway Department.
 - e. Mahopac Fire Department.

The applicant has noted these referrals

Response: No response required.

2. Comment: The following permits are required.
- a. NYSDEC - for stormwater and wetlands.
 - b. PCDOH for well and treatment system.
 - c. Town of Carmel Highway- work permit.
 - d. ECB for wetlands.

The applicant has noted these permit requirements

Response: No response required.

3. Comment: The area of disturbance for the work as provided is 18,644 sf. The threshold criteria of disturbances for the NYSDEC stormwater regulation are between 5,000 square feet and one (1) acre and over one (1) acre. The project will require coverage under the NYSEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) and the

development of Stormwater Pollution Prevention Plan (SWPPP) that has erosion and sediment controls.

The applicant has provided a SWPPP which is currently under review. The applicant has included the proposed underground utility service areas as part of the overall area of disturbance. Applicant has noted that the SWPPP would be updated.

The total area of disturbance should be noted on the drawings.

Response: Area of disturbance is 2.07 ac. This has been noted on sheet 4 and 5.

4. Comment: All re-grading required to accomplish the intended development should be provided. It is unclear from the drawings provide the extent of cut and fill proposed for the site. This includes the areas for the proposed underground utility service.

The applicant has provided a grading plan. The amount of fill, if any, being brought to the site should be provided.

All fill brought to the site must be certified per NYSDEC regulations and manifests/certification of the fill material being delivered should be provided. A note should be added to the drawing.

Applicant has noted that a cut and fill analysis will be provided.

Response: A note has been added to the site plan. Cut and fill analysis and amount has been provided on grading plan (sheet 4).

5. Traffic and Vehicle Movement Plans should be provided which provide the following:

- a. Comment: All sight distance calculations should be provided.

Response: Sight distance calculations are referenced on drawing 8.

b. Comment: Slopes at the entrance way need to be defined. It is suggested that slopes of less than 6% be used for the first 20 feet of entry and that slopes of no greater than 8% be used entering the site. Please refer to AASHTO guidelines for commercial properties.

A driveway profile should be provided.

Response: Driveway profile off Bucks Hollow Road provided. Entrance conforms with AASHTO requirements. Refer to Drawing 4.

6. Comment: All easement information regarding the areas for the proposed underground utility service must be provided.

Applicant has provided easement information. This should be reviewed by Planning Counsel.

Response: No response required.

7. Comment: Should any public improvements be deemed necessary as part of the development of the tract, a Performance Bond and associated Engineering Fee must eventually be established for the work. The applicant will need to develop a quantity take off for bonding purposes.

The applicant has noted this requirement. The applicant should note that a Performance Bond and associated Engineering fee is minimally required for the stormwater management practices, erosion and sediment control drainage features, landscaping etc. installed on the site. Please see §156-61 J and K of the Town Code for additional information.

Response: No response required.

Detailed Comments

1. Comment: A landscaping plan should be provided to show the location and extent of all plantings.

A landscaping plan has been provided. The applicant should add a note that all plantings shall be installed per §142 of the Town of Carmel Town Code. A note should be added to the drawings.

Response: This note has been added to drawing 1 as note 7.

2. Comment: The rain garden locations have been provided. The applicant should note that they must meet the criteria as defined by the NYSDEC. This includes providing sufficient depth to groundwater.

Applicant indicated that the calculation will be provide prior to construction. Minimally these calculations will need to be provided/approved as part of the Planning Board approval. The applicant has noted that testing for groundwater will be performed as soon as weather permits.

Response: We will schedule test hole as soon as weather permits. Then, we will provide groundwater elevation and the rain garden calculation will be revised if needed.

3. Comment: Adequate protection should be provided in the stormwater management practice (SMP) areas to minimize disturbance during construction. Details should be provided to show how the rain garden will be protected during construction.

Applicant has noted that the rain gardens will be installed in the final stages of construction. However the applicant should not the in order as to not impact the infiltration of the subsoils under the proposed areas for rain gardens that the areas should be shown on the drawing as protected.

Response: A rain garden protection plan and detail are provided accordingly in the revised site plan sheet 5.

4. Comment: It is unclear if additional electrical utilities are being installed.

Applicant indicated that an electrical upgrade is being installed

underground. The extent of the underground utilities has been provided as to follow the access road.

Response: No response required.

5. Comment: The wastewater report should provide loading values (#/dy) for the proposed system.

The applicant has provided a wastewater report. The report should provide the parameters in alphabetical order.

Response: Updated wastewater report has been provided with this submission.

6. Comment: Details for the proposed connection into the Town of Carmel Sewer system must be provided.

The applicant should note that all sewers must meet the Town of Carmel Town Code § 120. The full set of drawings should provide this information. Applicant has provided some additional information which is currently under review.

Response: Our sewers will meet Town of Carmel Town Code SS 120 Sanitary Sewer Improvements. Note has been provided on sheet 4.

7. Comment: Gate valves shall be AWWA non-rising stem type, as manufactured by Mueller Company, Model A-2360-23, or approved equal, conforming to the latest AWWA Standard for Gate Valves - 3" through 48" - for Water and Other Liquids, AWWA Designation C-509.

Response: No response required.

8. Comment: Sizes up to and including 12" shall be 250 psi working pressure. The valve body and bonnet shall be ductile iron. All interior and exterior metal surfaces shall be coated with a two-part thermo setting epoxy complying with AWWA C550.

Response: No response required.

9. Comment: Valves shall have dual "O" ring seals, inside screw, resilient wedge seats in accordance with AWWA Designation C-550 and shall be constructed so as to provide unobstructed full port clearance when fully open and immediate complete closure when closed. The ends of the valves shall be mechanical joint.

Response: No response required.

10. Comment: All valves shall be arranged to open in counterclockwise direction unless otherwise specifically indicated and operating nuts shall be 2" square.

Response: No response required.

11. Comment: Valves shall be tested to a pressure of not less than two times the working pressure.

Response: No response required.

12. Comment: All hydrants shall be six inches in size with six-inch mechanical joint inlet connection and shall be equal to the Mueller Centurion A-421, with one (1) 4 ½" pumper nozzle and two (2) 2½ " hose nozzles.

Response: No response required.

13. Comment: Water Service Saddles shall be equal to those manufactured by Mueller, Model 7 ½" x 1" SS Series Stainless Steel Saddle, Double Stud.

Response: No response required.

14. Comment: Corporation stops shall be equal to those as manufactured by Mueller Company, Model B- 25000Series, NRS and of the size required. Such corporation stops shall meet the requirements of AWWA Specification No. C800.

Response: No response required.

15. Comment: Curb valves (stops) shall be equal to those as manufactured by Mueller Company, Model H- 15214 and shall conform to AVVWA Specification No. C800.

Response: No response required.

16. Comment: Curb boxes shall be equal to those as manufactured by Mueller Company and similar to Mueller extension type with arch pattern base model H- 10314 all extension rods shall be stainless steel.

Response: No response required.

17. Comment: All fire hydrants shall be the approved AWWA type fire hydrants in conformance with the American Water Works Association Standard for Fire Hydrants for Ordinary Water Works Service, AWWA Designation C502, and shall have a 5-1/4" valve opening, a 6" mechanical joint inlet complete with an auxiliary gate valve (close coupled), a 6" mechanical joint shoe, and all appurtenances.

Response: No response required.

18. Comment: Fire hydrants shall be rated for a working pressure of 250 Psi. Fire hydrants shall be sized for a 4'-6" bury.

Response: No response required.

Comment: Applicant has noted these comments. The only exception is comment 11 where SUEZ standard is to open right.

Response: No response required.



Excellence Delivered **As Promised**

February 23, 2022

Richard J. Franzetti, P.E., BCEE
Town of Carmel, NY
60 McAlpin Avenue
Mahopac, NY 10541

Re: PFAS Removal at Mahopac Well Site
Sewer Loading Analysis
Carmel, Putnam County

Dear Mr. Franzetti:

This letter and the attached documents are being submitted in response to the Town's review comments, dated January 19, 2022, for the Sewer Loading Analysis for the proposed PFAS removal at the Mahopac Well Site. Responses requested are specifically addressed below.

1. *The flow is listed at 588 gallons. How will this be discharged into the system? Continual flow over the course of the day or batch?*

Response: The flow will be discharging to the sewer in a batch for 30-40 minutes a day at an approximate rate of 13-15 gpm.

2. *What is the color of the discharge?*

Response: The backwash water is black to brown in color.

3. *What is the consistency of the discharge? Is it a slurry, supernatant, etc.*

Response: The backwash is the consistency of water. There may be some small precipitates of iron / manganese, but not a slurry.

4. *Use a Romac CB style connector. Include on Drawing CD-1.*

Response: A callout has been added on sheet CD-1 and connector information is included in the specifications.

5. *All sewer drawings should be included as part of the overall submittal.*

Response: Acknowledged.

Please contact me at 410-907-2682 or via email, sliskovich@gfnet.com, if you have any questions.

Gannett Fleming Engineers and Architects, P.C.

Suite 450 • 88 Froehlich Farm Blvd • Woodbury, NY 11797-2012
t: 516.364.4140 • f: 516.921.1565
www.gannettfleming.com

Richard Franzetti
February 11, 2022
Page 2 of 2

Very truly yours,

GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

Sophia Liskovich, P.E.
Project Manager
Enclosures

cc: SWNY – S. Garabed, M. Stepanova (via e-mail)



PUTNAM COUNTY DEPARTMENT OF HEALTH

1 Geneva Road, Brewster, NY 10509 ■ 845-808-1390

www.putnamcountyny.gov/health

A PHAB-ACCREDITED HEALTH DEPARTMENT

MaryEllen Odell

COUNTY EXECUTIVE

Michael J. Nesheiwat, MD

COMMISSIONER OF HEALTH

March 3, 2022

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541

Re: SUEZ Water, Forest Park Generators

Dear Members of the Board,

It has been brought to the Putnam County Department of Health's (PCDOH) attention that there are concerns regarding the need for generators to supply emergency power at Community Public Water Systems; specifically the SUEZ owned water systems, formerly known as Forest Park. As per the Putnam County Sanitary Code (PCSC) Article 13 Section 4.B:

"Existing Community Water Systems serving 25 or more people and/or serving 15 or more connections with no provisions for emergency power shall ... install an Electric Manual Transfer Switch(s) so as to facilitate the immediate plug in to a portable on-site Emergency Electric Power Generation."

The driving force behind implementing this section of the PCSC was due to the rural location of many of the County's small Community Water Supplies where, historically, extended power outages have occurred. According to the New York State Sanitary Code (Part 5, Subpart 5-1.1, bz.9) it is a public health hazard when a Public Water System experiences a disruption of water service for four hours or more. When a water line loses pressure, there is the possibility that the drinking water may become contaminated by microorganisms that can cause illness. If the generators are not kept on site at the Public Water Supply locations, it may be impossible for the water system operator to trailer a generator after a major storm event to the locations where they are needed within the four hour time frame. If water service is not restored within four hours, the Public Water System must issue a Boil Water Notice for the entire district until water service is restored and is sampled for bacteria. This is not only inconvenient for all the residents, but also creates a serious health hazard of no clean water to drink, wash, or bathe within the affected district.

When this Sanitary Code was passed, the PCDOH included the requirement that all new Public Water Systems are required to install dedicated on-site Emergency Electrical Power Generation (PCSC Article 13 Section 4.C.2). This was meant to be proactive, so that new Public Water Supplies would not have to retrofit a generator system, and instead follow common practice of having on-site automatic generators. We strongly encourage all existing Public Water Systems to be brought up to current code standards in all aspects, which includes having an emergency generator on-site.

As a former operator of the Forest Park water systems before they were acquired by SUEZ, I can personally attest that the number one complaint of residents at every district was the lack of permanent

stand by generators. There was nothing I could do as an operator to return water service to the residents when there was a power outage.

The Putnam County Department of Health strongly recommends that all Public Water Supplies have on-site generators to power the water treatment plants in the event of a power failure to avoid a potential public health hazard.

A handwritten signature in black ink, appearing to read 'A. Fricchione', with a stylized flourish at the end.

Anthony Fricchione
Assistant Public Health Engineer

SUEZ Water New York, Inc.

PFAS COMPLIANCE PROJECT F MAHOPAC WELLS

Putnam County, New York

TOWN OF CARMEL WASTEWATER DISCHARGE PERMIT PACKAGE

SUEZ Water New York Inc.
162 Old Mill Road
West Nyack, NY 10944

Prepared by:



February 2022

Project Number: 068577

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 1.2. Existing Conditions 1
2. PROPOSED SYSTEM 2
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- APPENDIX B – Design Drawings
- APPENDIX C - Backwash Laboratory Results

1. PROJECT DESCRIPTION

1.1. Background

Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) are chemical substances that have been used for decades to manufacture firefighting foam and many common household and consumer products the public uses frequently, including non-stick cookware, fast food packaging, adhesives, paints, shampoo and cosmetics. In late August 2020, the State of New York adopted new drinking water standards that set a Maximum Contaminant Level (MCL) of 10 ppt for these substances in drinking water.

To comply with these new MCLs, SUEZ Water New York, Inc. (SWNY) plans to construct a treatment facility at the existing Mahopac Well site. The planned upgrade will not increase the firm capacity of the wells but add Granular Activated Carbon (GAC) as treatment to remove the PFOS and PFOA prior to entering the distribution system and ensuring compliance with the new regulations. To maintain effectivity, Greensand filters will also be installed to remove the excess iron and manganese from the water and will serve to prevent solids from plugging the GAC and requiring regular backwashing. As a result, the GAC will only be backwashed when it is replaced. SWNY will use frac tanks to contain the spent backwash water during the carbon installation/ replacement process. Backwash from the proposed Greensand filters decant tank is proposed to be discharged into the existing Town's sewer through a new sewer connection.

A pilot system using the well with the highest level of iron and manganese is currently at the site. This pilot system has been used to confirm proof of concept for the iron and manganese removal, as well as to provide specimens to analyze the water quality makeup of both the effluent and the backwash waste. The backwash waste information is presented below as well as the quality of backwash that will enter the Town's sewer system per day.

1.2. Existing Conditions

Mahopac Wells 1, 2, & 3 are located in a residential area 150 feet southwest of 34 Coventry Circle, Mahopac, Putnam County, New York and serve approximately 300 customers. The site is surrounded by Federal and State wetland areas. It is also located in an area with confirmed bog turtle and bat habitats.

The well water comes from three constant speed well pumps that convey water into a 34,200-gallon above ground finished water storage tank. Well No. 2 has been closed for production until iron and manganese mitigation is achieved. An existing temporary iron and manganese treatment trailer is currently in place at the Well No. 2 location. Existing on-site control includes the ability to operate the site remotely through the SCADA system.

The Mahopac Well site has a capacity of 130 gpm that will not be increased. The Standard Industrial Classification (SIC) Code for this facility is 4941, which corresponds to facilities primarily engaged in distributing water for domestic, commercial, and industrial use.

2. PROPOSED SYSTEM

The proposed treatment system will include upsizing of the well pumps. The well water will be conveyed by three variable speed well pumps into Greensand filtration units. Raw water will be dosed with sodium hypochlorite for oxidation before passing thru the filtration units. Backwash waste is transferred to a decant tank to separate the sludge. Decant water is recycled back to the inlet of the Greensand units and sludge will be discharge into the existing sewer thru a new sewer connection.

Following the Greensand units, the water shall pass through the GAC treatment system. Backwash water from the GAC treatment system will be transferred to a frac tank. The treated water will be dosed with sodium hypochlorite after treatment to achieve proper chlorination and will be transferred into an off-site 34,200-gallon aboveground finished water storage tank before distribution.

Sodium hypochlorite will be housed in two 50-gallon double walled chemical storage tanks.

Design drawings for the proposed treatment system are included in Appendix B.

2.1. Greensand Filtration System

A Greensand Plus Catalytic Filtration System will be provided to remove iron and manganese in the well water. Filtration will be provided via four vertical Greensand plus pressure filters operated in parallel and capable of automatic backwashes to clean the media. A 7,400-gallon decant tank for backwashing waste, along with sludge and decant pumps with associated piping and valves, are also included with the system.

Table 1 below summarizes the Greensand filtration criteria.

Table 1. Greensand Filtration Criteria

DESCRIPTION	MAHOPAC WELLS
Number Of Greensand Plus Vessels	4 (3 In Parallel And 1 Redundant)
Vessel Diameter (in)	42
Service Flow (gpm)	130
Filter Surface Area (ft ²)	9.62
Design Surface Loading Rate (gpm/Ft ²)	4.5
Backwash Rate Max Per Vessel (gpm @50f)	125
Rinse Rate (gpm)	130
Vessel Pressure Rating (psi)	150
Total Media Content (ft ³)	120
Backwash Duration	15 Min Plus A 2 Min Rinse

Backwashing is typically performed once every 24 to 48 hours depending on the contaminant levels. It can be performed sequentially or be set to go off at predetermined times. A maximum daily flow of 588.5 gal will be discharge into the sewer in a 6 hour batch, flow calculations are presented below:

Backwash Rate=	125	gal/min*vessel
No. Vessels=	3	vessels
Backwash Duration=	15	min
Backwash Flow=	5625	gal
Rinse Rate=	130	gal/min
Rinse Duration=	2	min
Rinse Flow=	260	gal
Total Flow to Decant Tank=	5885	gal
90% Recycled=	5296.5	gal
10% Sewer Discharge=	588.5	gal

3. WATER QUALITY

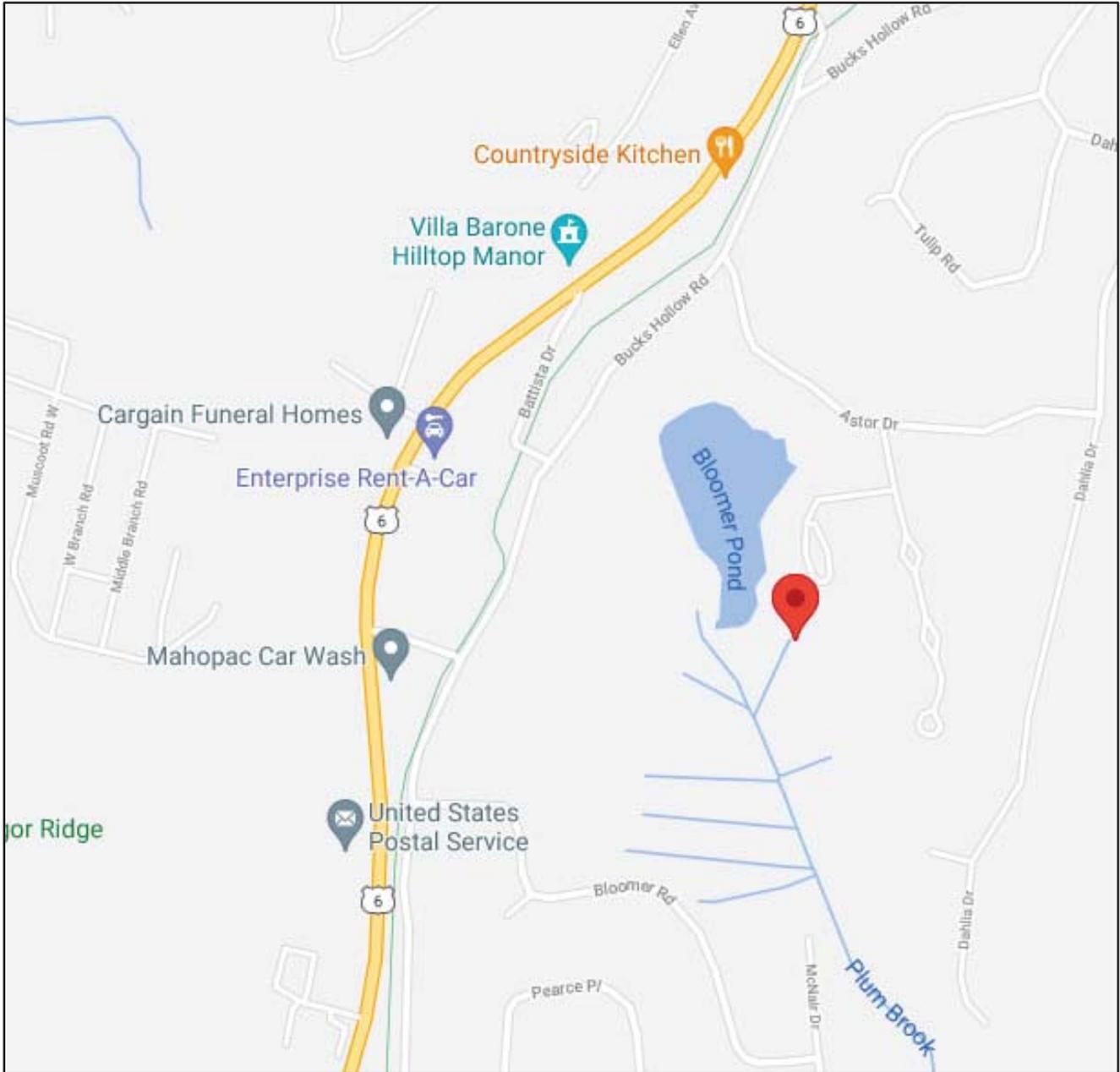
The temporary iron and manganese treatment system pilot is currently being operated at the Mahopac Wells site. On August 4, 2021, September 3, 2021, and November 22, 2021 representative samples were taken and tested from the backwash water line. Results are included in Appendix C and summarized in Table 2 below.

Table 2. Backwash Test Results

PARAMETER	RESULTS AUGUST SAMPLE	RESULTS SEPTEMBER SAMPLE	RESULTS NOVEMBER SAMPLE
Ammonia as Nitrogen (lb/day)	0.0008	0.00047	-
Arsenic (lb/day)	-	<0.000009	-
BOD/5day (lb/day)	<0.0186	<0.186	-
Cadmium (lb/day)	-	<0.000005	-
Chlorine Demand (lb/day)	0.0093	-	-
Chromium (lb/day)	-	0.000019	-
COD (lb/day)	0.275	-	-
Copper (lb/day)	-	0.0001	-

PARAMETER	RESULTS AUGUST SAMPLE	RESULTS SEPTEMBER SAMPLE	RESULTS NOVEMBER SAMPLE
Iron (lb/day)	-	-	0.163
Lead (lb/day)	-	0.000014	-
Manganese (lb/day)	-	0.0717	0.239
Mercury (lb/day)	-	<0.0000009	-
Molybdenum (lb/day)	-	<0.000017	-
Nickel (lb/day)	-	0.000061	-
Nitrogen (lb/day)	0.0028	-	-
Oil and Grease (lb/day)	<0.0065	<0.0065	-
pH	7.92	-	-
Phosphorus as P (lb/day)	0.0005	0.00095	-
Selenium (lb/day)	-	<0.000023	-
Silver (lb/day)	-	0.000009	-
Total Cyanide (lb/day)	-	<0.000093	-
Total Suspended Solids (lb/day)	0.466	0.978	-
Zinc (lb/day)	-	0.00137	-

**APPENDIX A
LOCATION MAP**



**MAHOPAC WELLS
LOCATION MAP**

**APPENDIX B
CIVIL AND PROCESS
DESIGN DRAWINGS**

SUEZ WATER NEW YORK INC

ONLY CIVIL AND PROCESS DRAWINGS INCLUDED

PUTNAM COUNTY, NEW YORK

PFAS COMPLIANCE MAHOPAC WELLS



LOCATION MAP

SCALE: 1" = 5000'

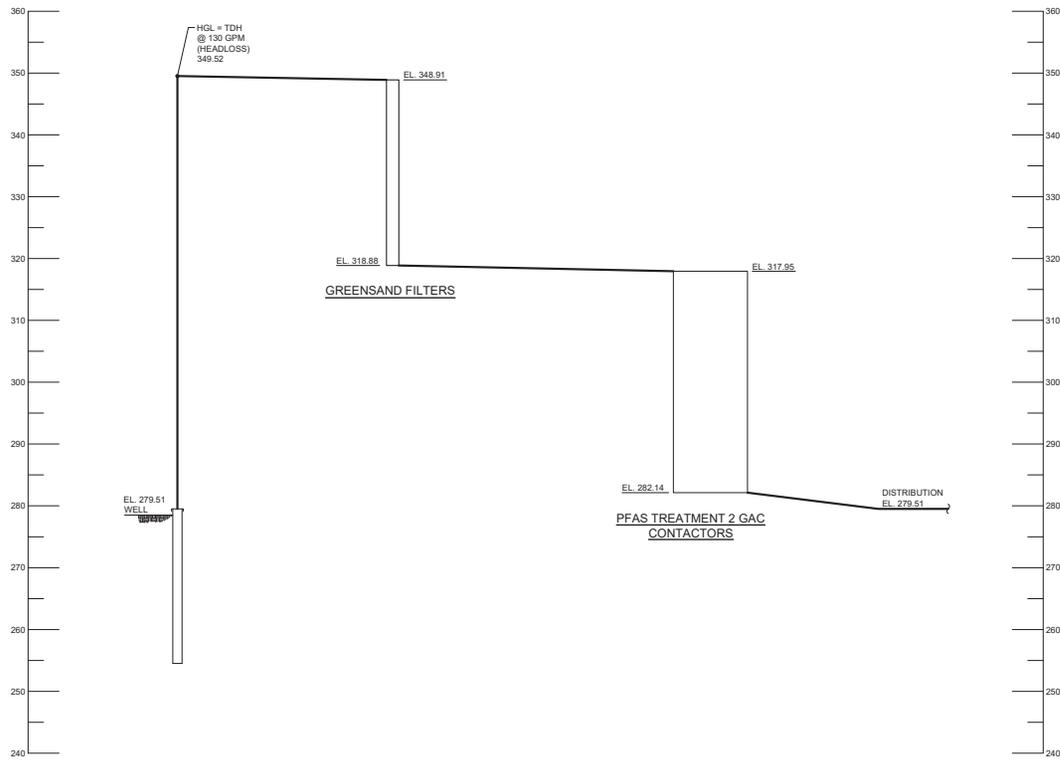
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68577

AUGUST 2021



FILE PATH: C:\Users\mfl\OneDrive\GANNETT FLEMING\INC\08577\SuezNY_PFA_S Project_F_and_JL_DB\Project Files\Water\DWG\General\085770501.dwg
 DATE SAVED: 10/19/2021 1:59 PM BY: mfl
 DATE PLOTTED: 10/19/2021 1:58 PM



HYDRAULIC PROFILE

HORZ: NO SCALE
 VERT: 1" = 10'
 VERTICAL
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No.	DESCRIPTION	DATE	BY

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	APPROVED	APPROVED

GANNETT FLEMING
 ENGINEERS AND ARCHITECTS, P.C.

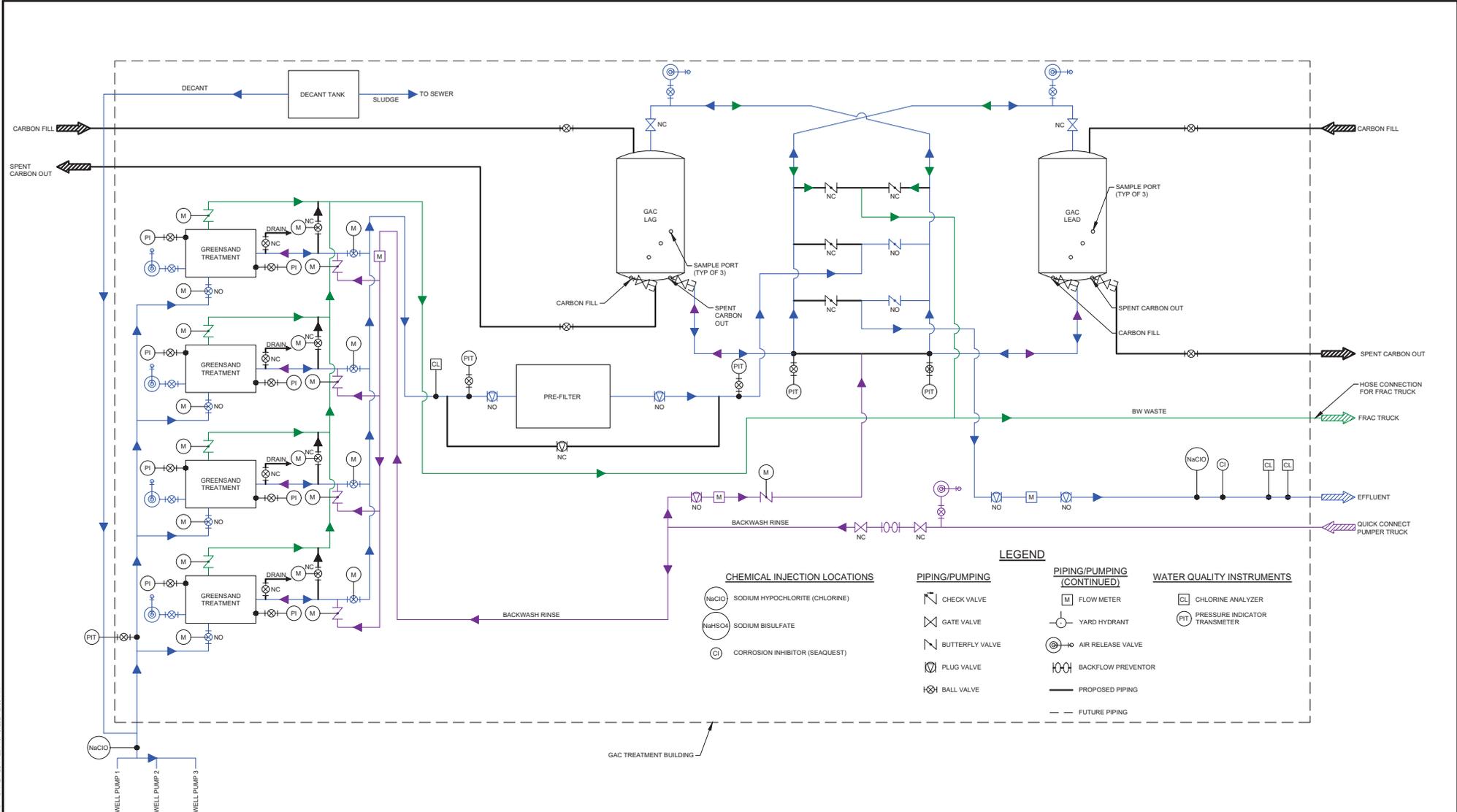
SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK

PFAS COMPLIANCE

**MAHOPAC WELLS
 PROCESS
 HYDRAULIC PROFILE**

JOB No.	SHEET No.
68577	G-501
DATE	
OCTOBER 2021	

FILE PATH: C:\Users\mcc\Documents\GANNETT FLEMING\INC\08577-Susquy PFAS_Proj\Proc_F_and_I_DB\Project Files\Water\DWG\General\8577-0202.dwg
 DATE SAVED: 10/19/2021 1:58 PM BY: mcm
 DATE PLOTTED: 10/19/2021 2:08 PM



- CHEMICAL INJECTION LOCATIONS**
- NaClO SODIUM HYPOCHLORITE (CHLORINE)
 - NaHSO5 SODIUM BISULFATE
 - CI CORROSION INHIBITOR (SEAQUEST)

- PIPING/PUMPING**
- CHECK VALVE
 - GATE VALVE
 - BUTTERFLY VALVE
 - PLUG VALVE
 - BALL VALVE

- LEGEND**
- PIPING/PUMPING (CONTINUED)**
- FLOW METER
 - YARD HYDRANT
 - AIR RELEASE VALVE
 - BACKFLOW PREVENTOR
 - PROPOSED PIPING
 - FUTURE PIPING

- WATER QUALITY INSTRUMENTS**
- CHLORINE ANALYZER
 - PRESSURE INDICATOR TRANSMITTER

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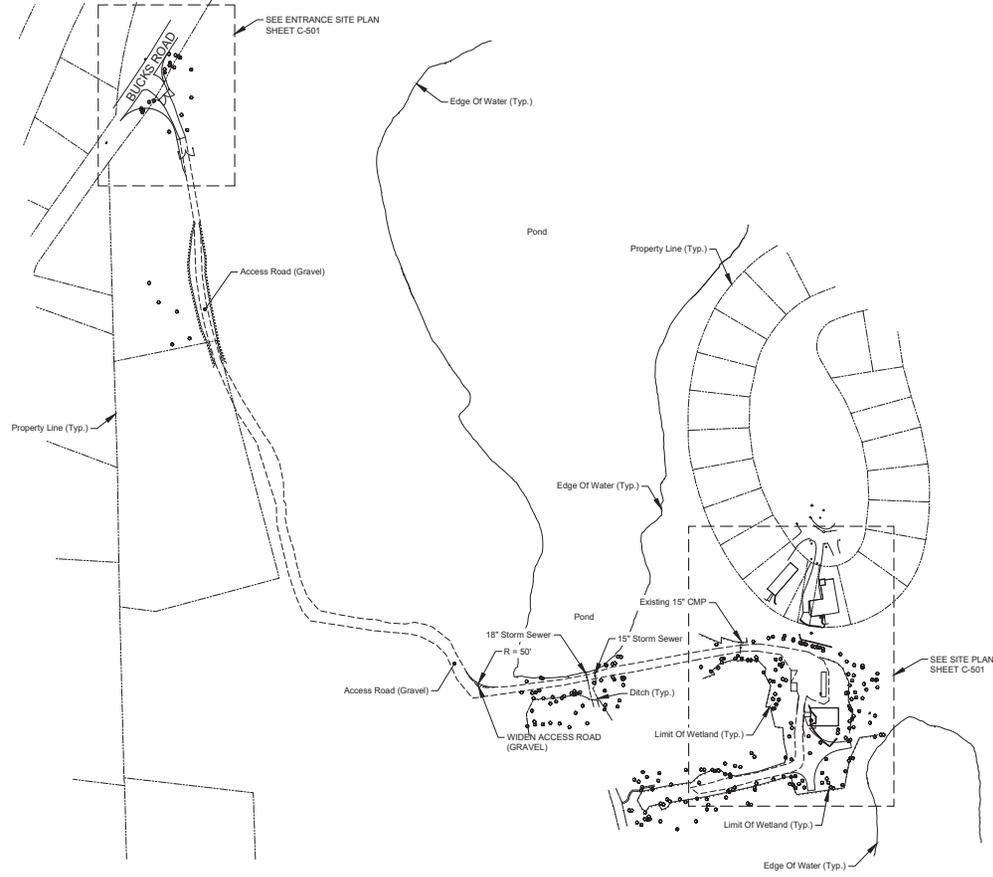
No.	DESCRIPTION	DATE	BY

DESIGNED: []
 CADD: T.L.M.
 SCALE: AS NOTED
 CHECKED: []
 APPROVED: []
GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

CREAMER
 FLETCHER CREAMER & SOIL, INC.
 SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK
PFAS COMPLIANCE

MAHOPAC WELLS PROCESS PROCESS FLOW DIAGRAM

JOB No. 68577
 DATE OCTOBER 2021
 SHEET No. G-502



LOCATION PLAN

SCALE 1" = 100'



FILE PATH: Z:\DRAWINGS\68577 SuezNY PFAS-Proj-F-Arch-CIVIL\68577C500.dwg
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DESIGNED	CADD	SCALE
J.L.G.	J.L.G.	AS NOTED
CHECKED	APPROVED	
S.Z.L.		


GANNETT FLEMING
 ENGINEERS AND ARCHITECTS, P.C.

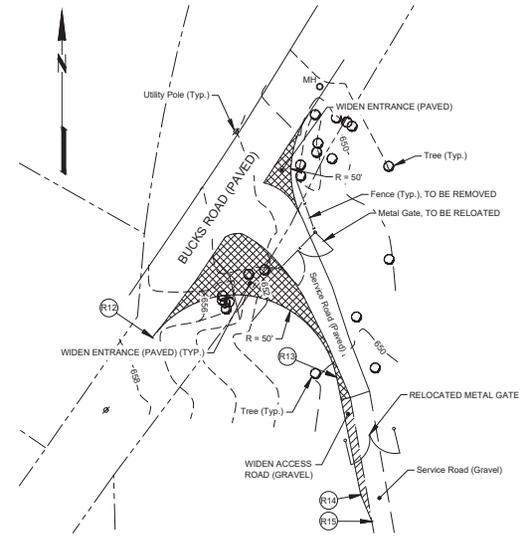
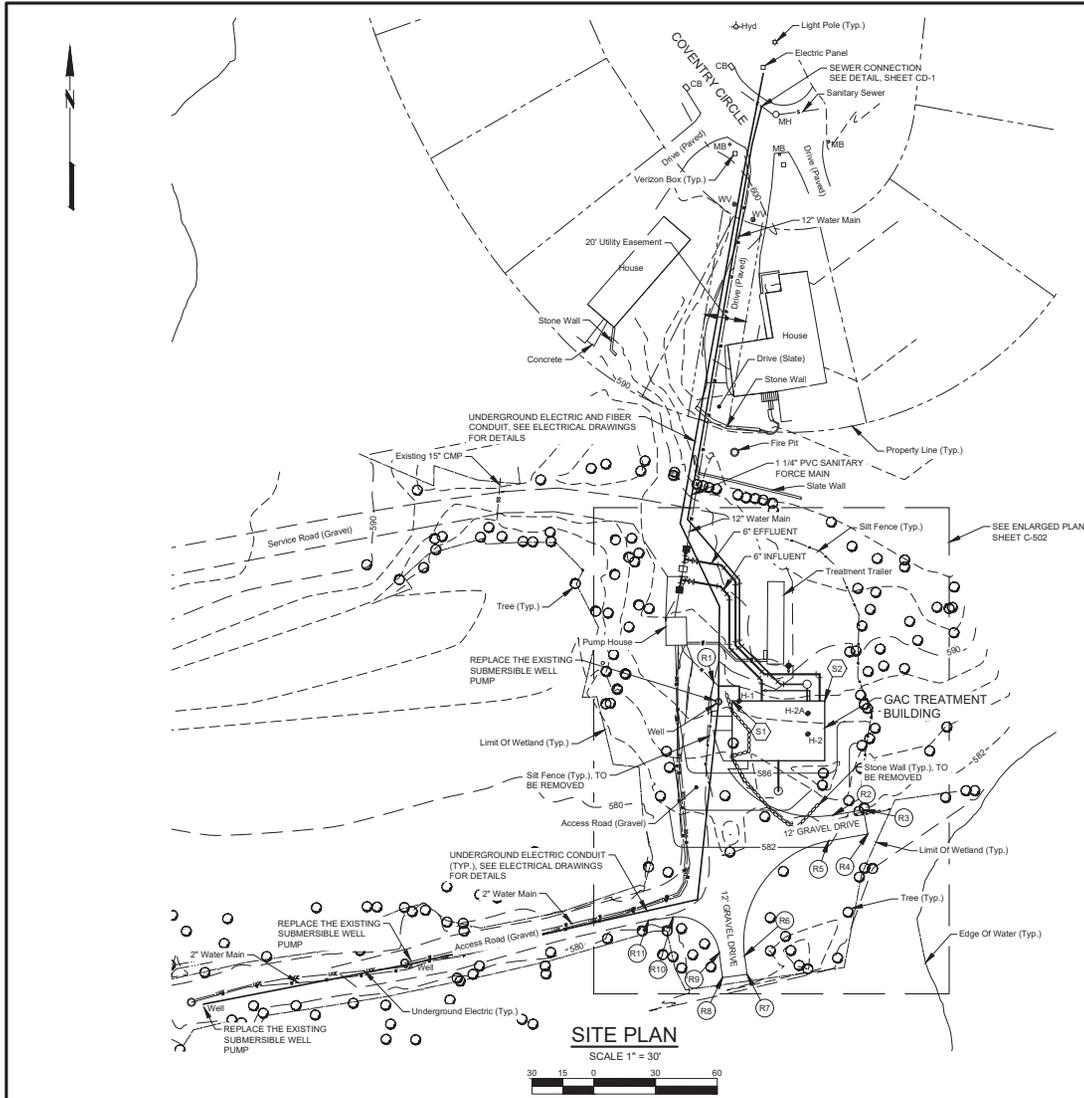

CREAMER
 A FLETCHER CREAMER & SON, INC. COMPANY OF AEC GROUP

SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK

PFAS COMPLIANCE

MAHOPAC WELLS
 CIVIL
 LOCATION PLAN

JOB No.	SHEET No.
68577	C-500
DATE	
OCTOBER 2021	



ENTRANCE SITE PLAN

SCALE 1" = 30'



STRUCTURAL CONTROL

S1	NORTHWEST CORNER OF GAC TREATMENT BUILDING	N 921278.26	E 700822.37
S2	NORTHEAST CORNER OF GAC TREATMENT BUILDING	N 921278.26	E 700867.37

BORINGS

H-1	N 921279.19	E 700859.18
H-2	N 921272.19	E 700859.18

ACCESS ROAD CONTROL

R1	POINT OF CURVE	N 921287.31	E 700813.41
R2	POINT OF TANGENT	N 921222.86	E 700871.39
R3	---	N 921225.49	E 700886.15
R4	---	N 921213.68	E 700888.26
R5	POINT OF CURVE	N 921210.28	E 700869.21
R6	POINT OF TANGENT	N 921154.64	E 700828.40
R7	---	N 921145.56	E 700829.57
R8	---	N 921144.02	E 700817.67
R9	POINT OF CURVE	N 921156.02	E 700816.12
R10	POINT OF TANGENT	N 921173.29	E 700793.72
R11	---	N 921171.74	E 700781.74
R12	POINT OF CURVE	N 922227.86	E 699704.43
R13	POINT OF TANGENT	N 922208.56	E 699793.87
R14	---	N 922151.45	E 699805.62
R15	---	N 922138.55	E 699811.00

PIPELINE CONTROL

NAME	SIZE	FITTING	STATION	NORTHING	EASTING	ELEVATION
INFLUENT	12" X 6"	TEE	0+00.00	921337.08	700797.64	584.45±
	12"	SOLID SLEEVE	0+00.00	921332.15	700795.79	584.45±
	6"	GATE VALVE	0+05.00	921336.22	700802.56	584.45±
	6"	45° BEND VERT.	0+19.40	921333.79	700816.75	584.25
	6"	45° BEND HORIZ.	0+25.85	921328.89	700820.95	584.25
	6"	45° BEND HORIZ.	0+50.07	921304.08	700820.95	583.25
EFFLUENT	6"	45° BEND HORIZ.	0+73.03	921286.26	700836.77	583.25
	6"	90° BEND HORIZ.	0+13.00	921291.26	700864.87	583.25
	6"	45° BEND VERT.	0+39.86	921291.26	700838.00	583.25
	6"	45° BEND HORIZ.	0+59.74	921305.32	700823.95	583.25
	6"	45° BEND HORIZ.	0+90.74	921336.26	700823.95	584.50
	6"	45° BEND HORIZ.	1+01.05	921344.13	700817.20	584.50
6"	GATE VALVE	1+14.15	921346.26	700804.26	584.66±	
12" X 6"	TEE	1+19.15	921347.09	700799.33	584.66±	
12"	SOLID SLEEVE	1+19.15	921352.02	700800.15	584.66±	

NOTES

- ALL PIPING TO BE DUCTILE IRON UNLESS NOTED OTHERWISE.
- PIPING AND FITTINGS TO BE RESTRAINED JOINT UNLESS NOTED OTHERWISE.
- AT POINTS OF CONNECTION, CONTRACTOR SHALL EXPOSE EXISTING WATER MAINS TO VERIFY LOCATION, GEOMETRY, AND MATERIAL REQUIREMENTS PRIOR TO ORDERING MATERIALS OR STARTING CONSTRUCTION OF ANY MAIN CONNECTING THERE TO.
- INFORMATION SHOWN HEREIN IS BASED ON FIELD SURVEY PERFORMED BY ATZI, NASHER & ZIGLER P.C. MAY 2021.

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J.L.G.	J.L.G.	AS NOTED
CHECKED	APPROVED	APPROVED
S.Z.L.		

GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

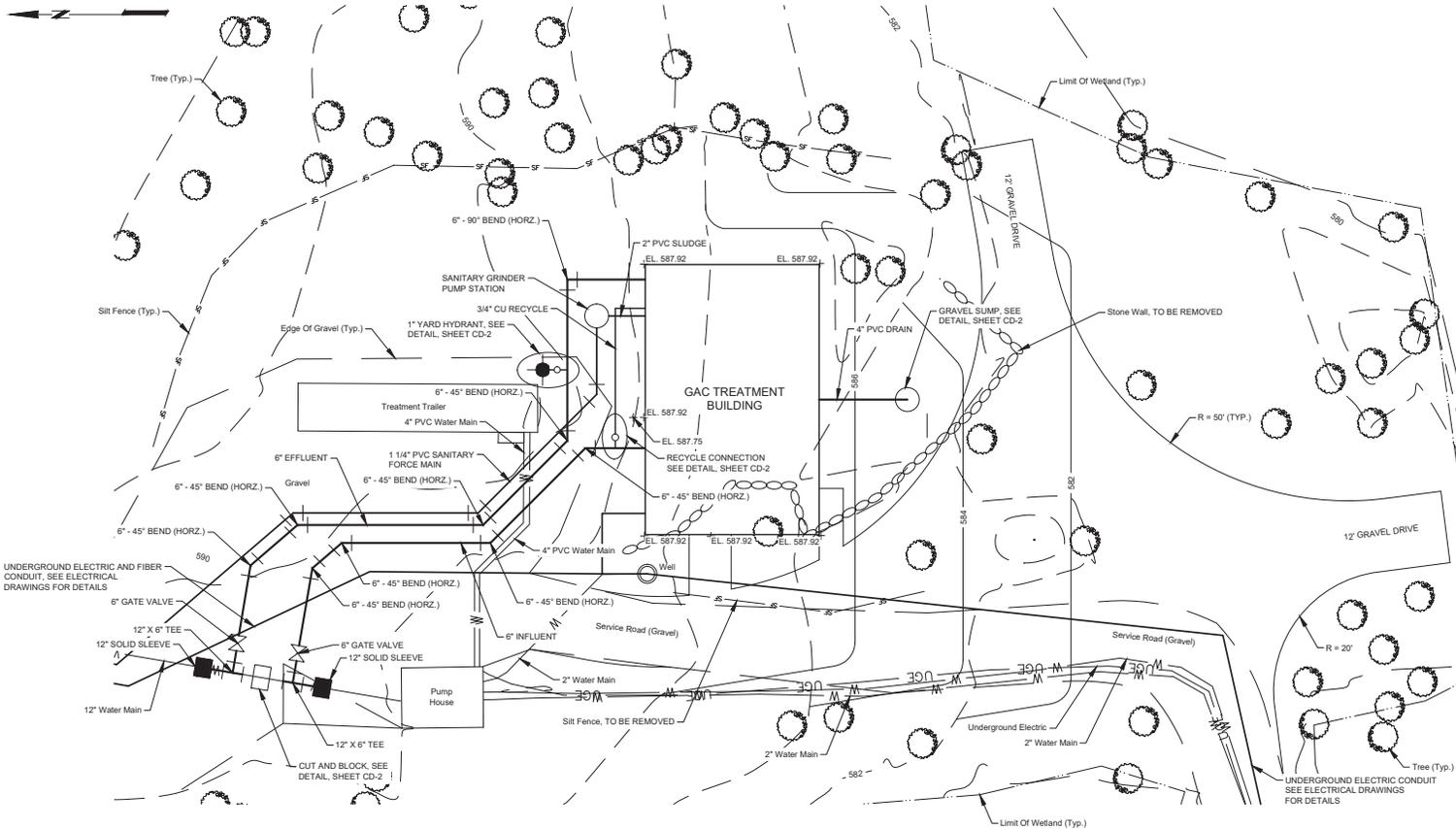
CREAMER
FLETCHER CREAMER & SOHL, INC.
MEMBER OF AEC GROUP

SUEZ WATER NEW YORK INC.
WEST NYACK, ROCKLAND COUNTY, NEW YORK

PFAS COMPLIANCE

MAHOPAC WELLS CIVIL
SITE AND ENTRANCE SITE PLANS

JOB No.	SHEET No.
68577	C-501
DATE	
OCTOBER 2021	



NOTES

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ENLARGED PLAN



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CHECKED	APPROVED	APPROVED
S.Z.L.		

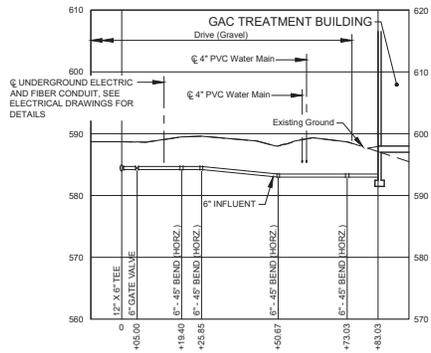
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 FLETCHER CREAMER & SOHL, INC.
MEMBER OF AEC GROUP

SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK

PFAS COMPLIANCE

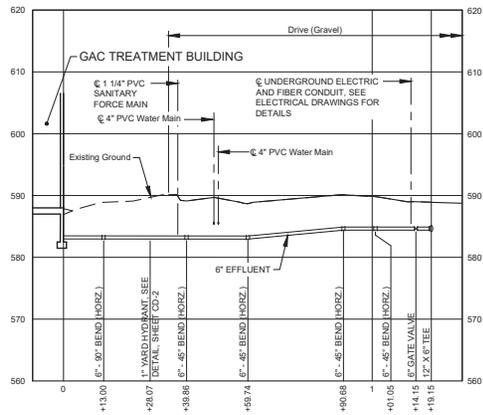
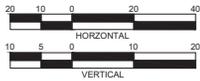
**MAHOPAC WELLS
 CIVIL
 ENLARGED PLAN**

JOB No.	SHEET No.
68577	C-502
DATE	
OCTOBER 2021	



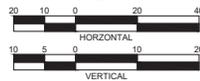
INFLUENT

SCALE HORZ. 1" = 20'
VERT. 1" = 10'



EFFLUENT

SCALE HORZ. 1" = 20'
VERT. 1" = 10'



NOTES

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J.L.G.	J.L.G.	AS NOTED
CHECKED	APPROVED	APPROVED
S.Z.L.		

GANNETT FLEMING
ENGINEERS AND ARCHITECTS, P.C.

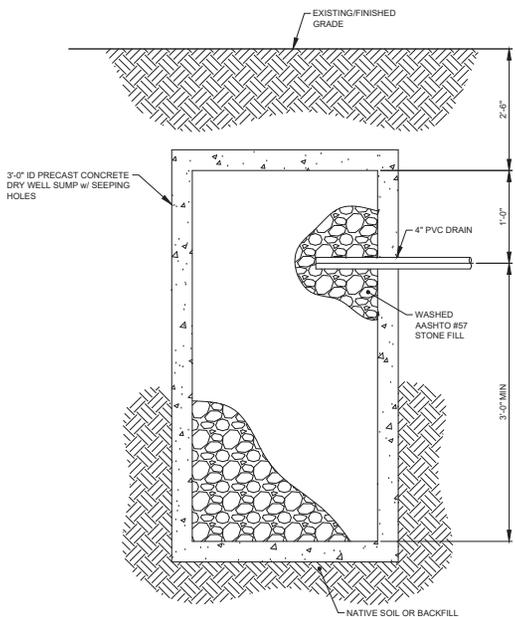
CREAMER
FLETCHER CREAMER & SOIL, INC.
MEMBER OF AEC GROUP

SUEZ WATER NEW YORK INC.
WEST NYACK, ROCKLAND COUNTY, NEW YORK

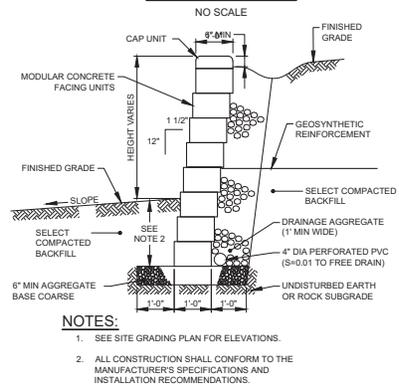
PFAS COMPLIANCE

MAHOPAC WELLS
CIVIL
PROFILES

JOB No.	SHEET No.
68577	C-503
DATE	
OCTOBER 2021	

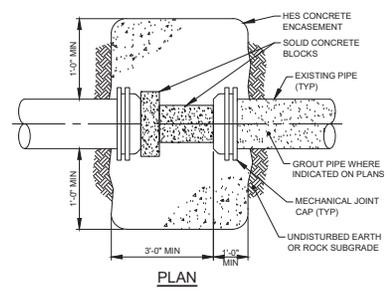


GRAVEL SUMP



NOTES:
 1. SEE SITE GRADING PLAN FOR ELEVATIONS.
 2. ALL CONSTRUCTION SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION RECOMMENDATIONS.

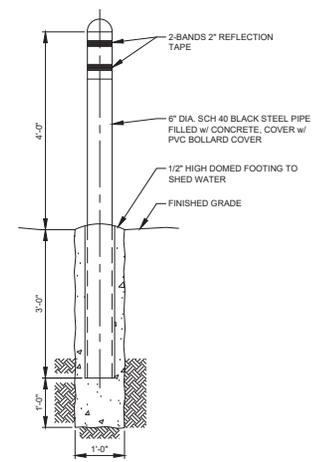
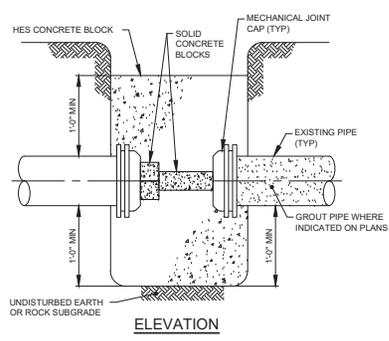
MODULAR CONCRETE RETAINING WALL



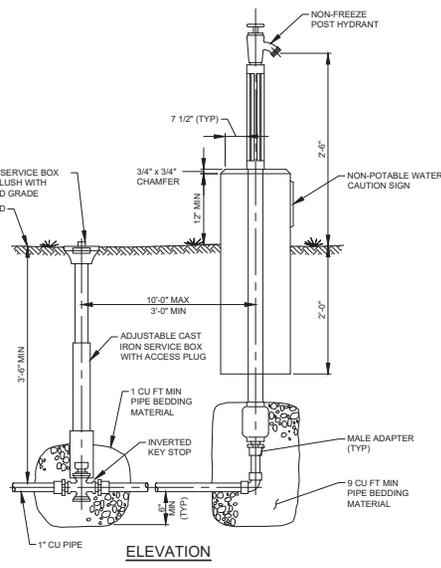
NOTES:

1. UNCOVER EXISTING PIPE.
2. CUT 2'-0" SECTION FROM MAIN IN CENTER OF EXCAVATION.
3. CAP EXISTING MAIN.
4. PLACE SOLID CONCRETE BLOCKS AS SHOWN. WEDGE TIGHTLY BETWEEN ENDS OF PIPE CAPS OR PLUGS.
5. CONCRETE ENCASMENT OPPOSITE CAP MUST BEAR ON UNDISTURBED EARTH.

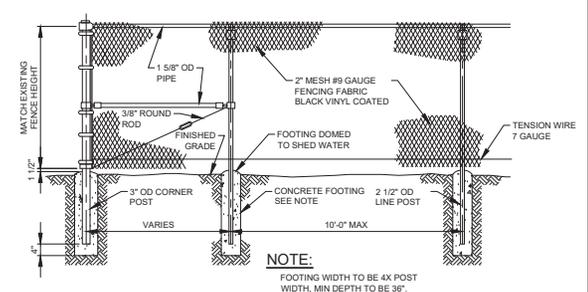
CUT AND BLOCK



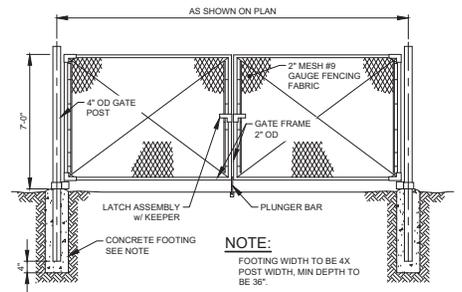
PIPE BOLLARD



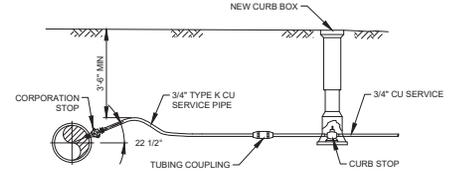
YARD HYDRANT



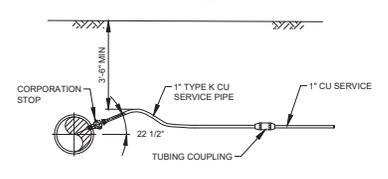
CHAIN LINK FENCE



DOUBLE SWING GATE



RECYCLE CONNECTION



YARD HYDRANT CONNECTION

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J.L.G.	J.L.G.	AS NOTED
CHECKED	APPROVED	APPROVED
S.Z.L.		

GANNETT FLEMING
 ENGINEERS AND ARCHITECTS, P.C.

CREAMER
 FLETCHER CREAMER & SOHN, INC.
MEMBER OF AEC GROUP

SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK

PFAS COMPLIANCE

CIVIL
 MISCELLANEOUS DETAILS

JOB No.	SHEET No.
68577	CD-2
DATE	
OCTOBER 2021	

FILE PATH: C:\Users\mcc\Documents\GANNETT FLEMING INC\085772\SuezNY_PFA5_Project_F_and_JL_DB\Project Files\Water\DWG\Process\685772.dwg
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WALL FITTINGS		
DESCRIPTION	SINGLE LINE	THREE LINE
WALL SLEEVE CAULKED (P.E., F. & P.E.)		
WALL SLEEVE MODULAR TYPE SEAL (P.E., F. & P.E.)		
WALL SLEEVE (M.J., F. & M.J.)		
WALL PIPE (F., F. & F.)		
WALL PIPE (B., F. & B.)		
WALL PIPE (B., F. & F.)		
WALL PIPE (M.J., F. & F.)		
WALL PIPE (F., F. & P.E.)		

NOTE: APPLIES TO FLOOR SLEEVES ALSO.

PIPE FITTINGS (CONT.)		
DESCRIPTION	SINGLE LINE	THREE LINE
REDUCER		
ECCENTRIC REDUCER		
BLIND FLANGE		
CLAMPED RESTRAINED COUPLING		
MECHANICAL COUPLING		
RESTRAINED MECH. COUPLING		
FLANGED ADAPTOR	N.A.	
FLANGED ADAPTOR W/ ANCHOR STUDS	N.A.	

VALVE SYMBOLS			
DESCRIPTION	SINGLE LINE	THREE LINE PLAN	THREE LINE ELEVATION
GATE			
BUTTERFLY			
BALL			
BALL CHECK		N.A.	N.A.
CHECK			
DIAPHRAGM		N.A.	N.A.
PLUG			
GLOBE		N.A.	N.A.
PINCH		N.A.	N.A.
NEEDLE		N.A.	N.A.
SOLENOID		N.A.	N.A.
AIR RELEASE	N.A.		
AIR VACUUM	N.A.		
COMBINATION AIR RELEASE - AIR/VACUUM	N.A.		
KINETIC AIR VACUUM	N.A.		
KINETIC COMBINATION AIR RELEASE - AIR VACUUM	N.A.		
PRESSURE REDUCING		N.A.	N.A.
HOSE BIBB			
STOP AND DRAIN			
PRESSURE RELIEF		N.A.	N.A.

PIPE FITTINGS		
DESCRIPTION	SINGLE LINE	THREE LINE
CROSS		
CROSS (VERT.)		
TEE		
TEE (VERT. UP)		
TEE (VERT. DOWN)		
90 ELBOW		
90 ELBOW (VERT. DOWN)		
90 ELBOW (VERT. UP)		
90 LONG RADIUS ELBOW		
45 ELBOW		
90 BASE ELBOW		
45° WYE		
UNION (SCREWED)		N.A.
ADAPTOR		N.A.
HOSE CONNECTION		N.A.

VALVE OPERATOR		
DESCRIPTION	SINGLE LINE	THREE LINE
MANUAL OPERATOR	N.A.	
MOTOR OPERATOR	N.A.	
CYLINDER OPERATOR	N.A.	

PIPE JOINTS		
DESCRIPTION	SINGLE LINE	THREE LINE
FLANGE		
MECHANICAL JOINT		
RESTRAINED JOINT		
PUSH ON OR BELL AND SPIGOT		
THREADED		
VICTAULIC COUPLING		
WELDED	N.A.	

PIPING ACCESSORIES		
DESCRIPTION	SINGLE LINE	THREE LINE
VENTURI METER		
STRAINER		
PRESSURE SWITCH		
PRESSURE GAUGE		
PRESSURE GAUGE W/ PRESSURE SWITCH		
THERMOMETER		
PROPELLER OR TURBINE METER		N.A.
MAGNETIC FLOWMETER		

No.	DESCRIPTION	DATE	BY

DESIGNED M.J.C./M.M.S.	CADD M.T.K.	SCALE AS NOTED
CHECKED J.L.R.	APPROVED	APPROVED

GANNETT FLEMING
ENGINEERS AND ARCHITECTS, P.C.

CREAMER
ELECTRICAL CREAMER & SOIL, INC.
MEMBER OF AEP GROUP

SUEZ WATER NEW YORK INC.
WEST NYACK, ROCKLAND COUNTY, NEW YORK

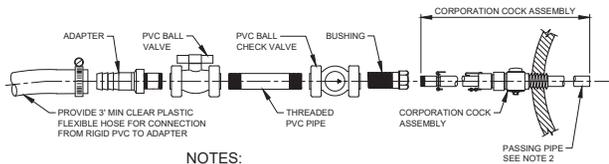
PFAS COMPLIANCE

PROCESS
PROCESS PIPING SYMBOLS

JOB No.
68577

DATE
OCTOBER 2021

SHEET No.
P-2

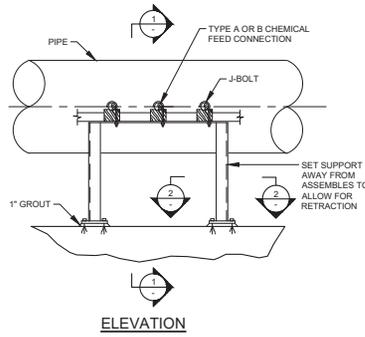


NOTES:

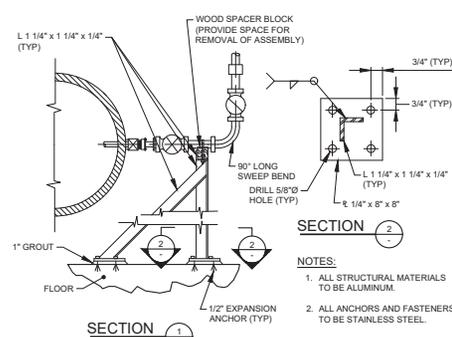
1. TYPE 'A' CONNECTION IS WHERE FEED LINE PROJECTS 1/3 DIA TO 1/2 DIA INTO MAIN.
2. FEED LINES UP TO AND INCLUDING 1" IN SIZE SHALL USE A 1/2" PASSING PIPE IN THE ASSEMBLY. ALL LARGER FEED LINES SHALL USE A 1 1/2" PASSING PIPE.

TYPE 'A' CONNECTION

NO SCALE



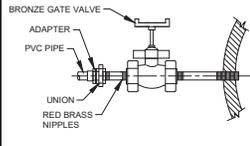
ELEVATION



SECTION 2

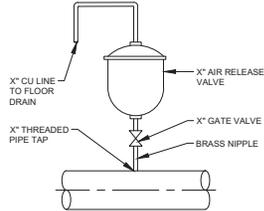
NOTES:

1. ALL STRUCTURAL MATERIALS TO BE ALUMINUM.
2. ALL ANCHORS AND FASTENERS TO BE STAINLESS STEEL.



TYPE 'C' CONNECTION

NO SCALE



NOTE:

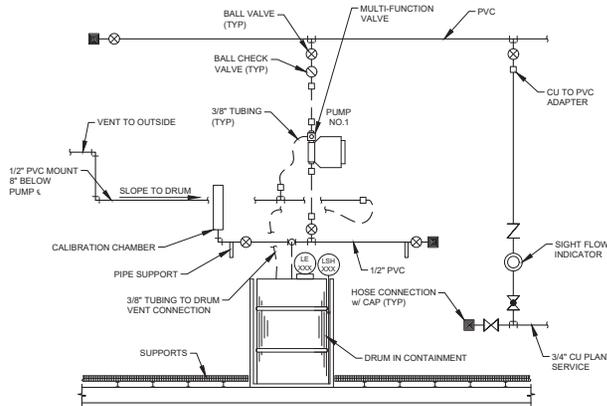
"X" = SIZE OF AIR VALVE NOTED ON PLANS.

AIR RELEASE VALVE

NO SCALE

FLOOR SUPPORT FOR CHEMICAL FEED CONNECTIONS

NO SCALE



TYPICAL CHEMICAL SCHEMATIC

NO SCALE

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CHECKED	APPROVED	APPROVED


GANNETT FLEMING
 ENGINEERS AND ARCHITECTS, P.C.


CREMER
 A FLETCHER CREMER & SOIL, INC.
MEMBER OF AEC GROUP

SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK
PFAS COMPLIANCE

PROCESS
 DETAILS AND CHEMICAL
 FEED SYSTEM SCHEMATIC

JOB No.	SHEET No.
68577	PD-1
DATE	
OCTOBER 2021	

FILE PATH: C:\Users\mcc\Documents\GANNETT FLEMING INC\068577\SuezNY_PFA_S Project_F_and_JL\DBA\Project Files\Water\DWG\Process\68577PD-2.dwg
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 DATE PLOTTED: 10/19/2021 2:46 PM

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No.	DESCRIPTION	DATE	BY

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	APPROVED	APPROVED

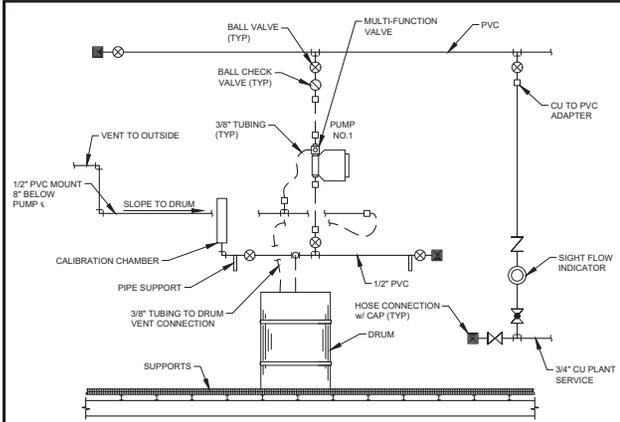

GANNETT FLEMING
 ENGINEERS AND ARCHITECTS, P.C.


CREMER
 FLETCHER CREMER & SOIL, INC.
MEMBER OF AEC GROUP

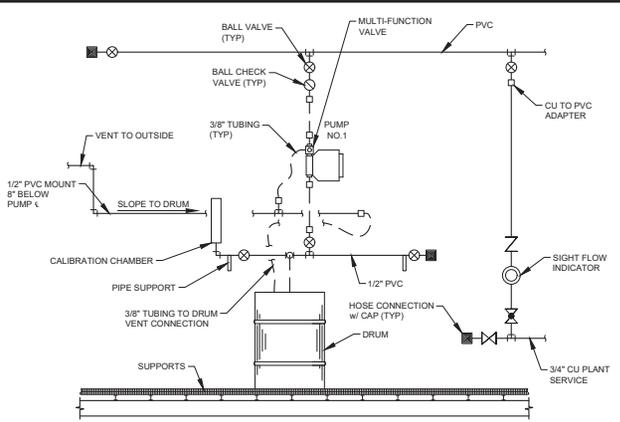
SUEZ WATER NEW YORK INC.
 WEST NYACK, ROCKLAND COUNTY, NEW YORK
PFAS COMPLIANCE

PROCESS
 CHEMICAL FEED SYSTEM SCHEMATICS

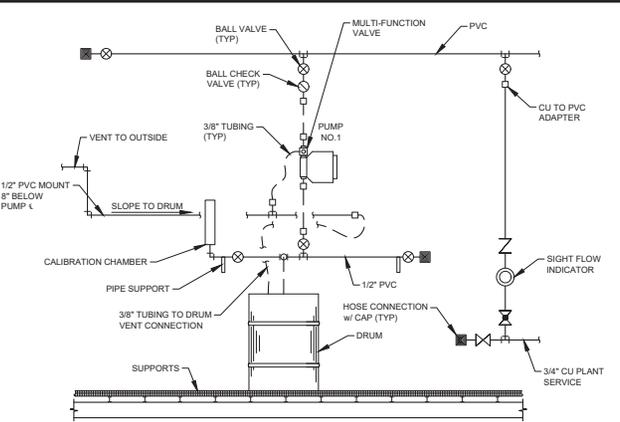
JOB No.	SHEET No.
68577	PD-2
DATE	
OCTOBER 2021	



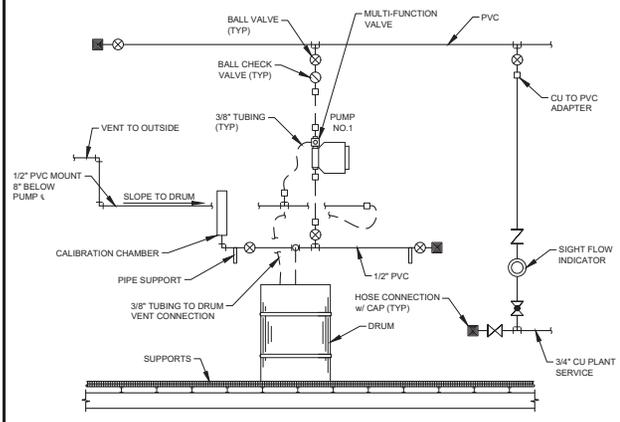
SODIUM HYPCHLORITE SCHEMATIC
 CHATEAU
 NO SCALE



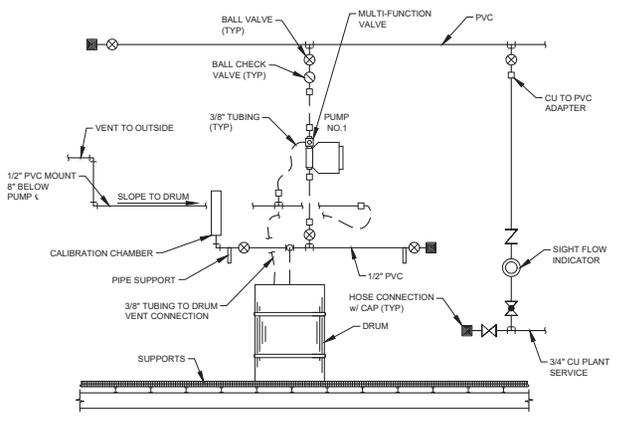
CORROSION INHIBITOR SCHEMATIC
 MAHOPAC
 NO SCALE



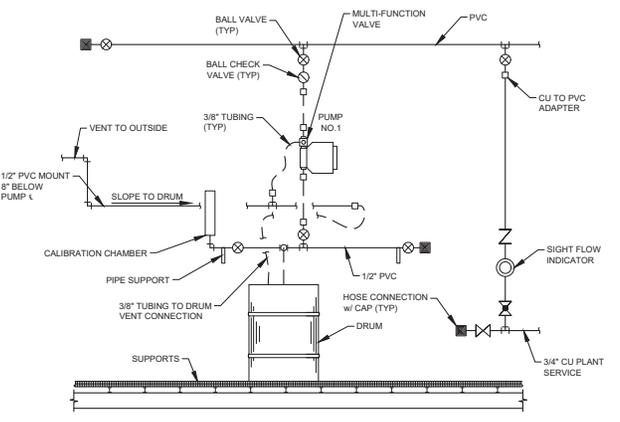
SODIUM HYPCHLORITE SCHEMATIC
 MAHOPAC
 NO SCALE



SODIUM HYPCHLORITE SCHEMATIC
 ARCHER
 NO SCALE



CORROSION INHIBITOR SCHEMATIC
 ARCHER
 NO SCALE



CAUSTIC SODA SCHEMATIC
 ARCHER
 NO SCALE

**APPENDIX C
BACKWASH LABORATORY
TEST RESULTS**



Friday, August 13, 2021

Attn: Roy Barticciotto
CEMCO Water & Wastewater Specialists Inc
59 Healey Lane
Stormville, NY 12582

Project ID: MAHPOPAC TREATMENT TRAILER
SDG ID: GCI88573
Sample ID#s: CI88573

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

August 13, 2021

SDG I.D.: GC188573

Project ID: MAHPOPAC TREATMENT TRAILER

Client Id	Lab Id	Matrix
BACKWASH	CI88573	WATER



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

August 13, 2021

FOR: Attn: Roy Barticcio
 CEMCO Water & Wastewater Specialists Inc
 59 Healey Lane
 Stormville, NY 12582

Sample Information

Matrix: WATER
 Location Code: CEMCO
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date

08/04/21
 08/04/21

Time

11:00
 17:34

Laboratory Data

SDG ID: GCI88573
 Phoenix ID: CI88573

Project ID: MAHPOPAC TREATMENT TRAILER
 Client ID: BACKWASH

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
B.O.D./5 day	< 4.0	4.0	mg/L	2	08/04/21 17:34	J/LJ	SM 5210B-11
B.O.D./5 day End Incubation					08/09/21 15:00	J/LJ	SM 5210B-11
Chlorine Demand	2.00	0.1	mg/L	1	08/13/21	KDB	SM2350
C.O.D.	59	10	mg/L	1	08/05/21	QH	SM 5220D-11
Ammonia as Nitrogen	0.18	0.10	mg/L	2	08/11/21	KDB	E350.1
Oil and Grease by EPA 1664A	< 1.4	1.4	mg/L	1	08/06/21	BJA	EPA 1664
pH	7.92	1.00	pH Units	1	08/05/21 01:25	MW/EG	SM4500-H B-11
Nitrogen Tot Kjeldahl	0.60	0.20	mg/L	2	08/11/21	KDB	E351.1
Phosphorus, as P	0.11	0.10	mg/L	10	08/06/21	JR	SM4500PE-11
Total Suspended Solids	100	6.3	mg/L	1.3	08/05/21	MCH/QH	SM 2540D-11

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
 BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 13, 2021

Reviewed and Released by: Helen Geoghegan, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

August 13, 2021

QA/QC Data

SDG I.D.: GCI88573

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 586491 (pH), QC Sample No: CI88378 (CI88573)													
pH			8.4	8.16	2.90	97.9						85 - 115	20
QA/QC Batch 586721 (mg/L), QC Sample No: CI88387 (CI88573)													
Phosphorus, as P	BRL	0.01	0.019	0.022	NC	95.2			104			85 - 115	20
Comment: Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 586589 (mg/L), QC Sample No: CI88430 (CI88573)													
C.O.D.	BRL	10	31	31	NC	104			105			85 - 115	20
Comment: Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 586542 (mg/L), QC Sample No: CI88558 (CI88573)													
Total Suspended Solids	BRL	2.5	<3.3	<3.5	NC	93.0						85 - 115	20
QA/QC Batch 586394 (mg/L), QC Sample No: CI88570 (CI88573)													
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	100			92.5			70 - 130	20
B.O.D./5 day GGA BOD						111						84 - 115	20
QA/QC Batch 586699 (mg/L), QC Sample No: CI89235 (CI88573)													
Oil and Grease by EPA 1664A	BRL	1.4	<1.4	<1.4	NC	103			97.0			85 - 115	20
Comment: Additional: MS acceptance range 75-125%.													
QA/QC Batch 587135 (mg/L), QC Sample No: CI88389 (CI88573)													
Ammonia as Nitrogen	BRL	0.05	21.8	21.9	0.50	96.1			101			90 - 110	20
Nitrogen Tot Kjeldahl	BRL	0.10	28.8	29.34	1.90	99.0			104			85 - 115	20
Comment: TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.													

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 August 13, 2021

Friday, August 13, 2021

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCI88573 - CEMCO

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

August 13, 2021

SDG I.D.: GCI88573

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.



Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

August 13, 2021

SDG I.D.: GCI88573

The samples in this delivery group were received at 1.4°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



Monday, September 13, 2021

Attn: Roy Barticciotto
CEMCO Water & Wastewater Specialists Inc
59 Healey Lane
Stormville, NY 12582

Project ID: MAHOPAC TREATMENT TRAILER
SDG ID: GCJ19988
Sample ID#s: CJ19988

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

September 13, 2021

SDG I.D.: GCJ19988

Project ID: MAHOPAC TREATMENT TRAILER

Client Id	Lab Id	Matrix
BACKWASH	CJ19988	WASTE WATER



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

September 13, 2021

FOR: Attn: Roy Barticcio
 CEMCO Water & Wastewater Specialists Inc
 59 Healey Lane
 Stormville, NY 12582

Sample Information

Matrix: WASTE WATER
 Location Code: CEMCO
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 09/03/21 11:00
 09/03/21 17:05

Laboratory Data

SDG ID: GCJ19988
 Phoenix ID: CJ19988

Project ID: MAHOPAC TREATMENT TRAILER
 Client ID: BACKWASH

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Silver	0.002	0.001		mg/L	1	09/08/21	EK	E200.7
Arsenic	< 0.002	0.002		mg/L	1	09/08/21	EK	E200.7
Cadmium	< 0.001	0.001		mg/L	1	09/08/21	EK	E200.7
Chromium	0.004	0.001		mg/L	1	09/08/21	EK	E200.7
Copper	0.022	0.003		mg/L	1	09/08/21	EK	E200.7
Mercury	< 0.0002	0.0002		mg/L	1	09/08/21	AT	E245.1
Manganese	15.4	0.050		mg/L	100	09/09/21	EK	E200.7
Molybdenum	< 0.003	0.003		mg/L	1	09/08/21	EK	E200.7
Nickel	0.013	0.001		mg/L	1	09/08/21	EK	E200.7
Lead	0.003	0.001		mg/L	1	09/08/21	EK	E200.7
Selenium	< 0.005	0.005		mg/L	1	09/08/21	EK	E200.7
Zinc	0.294	0.002		mg/L	1	09/08/21	EK	E200.7
B.O.D./5 day	< 40	40		mg/L	30	09/03/21 17:05	A/LJ	SM 5210B-11
B.O.D./5 day End Incubation						09/08/21 15:01	A/LJ	SM 5210B-11
Ammonia as Nitrogen	0.10	0.05		mg/L	1	09/10/21	KDB	E350.1
Oil and Grease by EPA 1664A	< 1.4	1.4		mg/L	1	09/11/21	MSF	EPA 1664
Total Cyanide	< 0.020	0.020		mg/L	2	09/13/21	ARC/GD	E335.4
Phosphorus, as P	0.203	0.010		mg/L	1	09/09/21	JR	SM4500PE-11
Total Suspended Solids	210	13		mg/L	2.5	09/08/21	AMM/ARGSM	2540D-11
Mercury Digestion	Completed					09/05/21	AB/AB	E245.1
Total Metals Digestion	Completed					09/07/21	AG	

Acrolein, Acrylonitrile, 2 CEVE

2-Chloroethyl vinyl ether	ND	5.0	5.0	ug/L	1	09/03/21	MH	E624.1 As is
Acrolein	ND	5.0	1.0	ug/L	1	09/03/21	MH	E624.1 As is
Acrylonitrile	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1 As is

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1-Trichloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,1,2,2-tetrachloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,1,2-Trichloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,1-Dichloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,1-Dichloroethene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,2-Dichlorobenzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,2-Dichloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,2-Dichloropropane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,3-Dichlorobenzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
1,3-Dichloropropene	ND	5.0	5.0	ug/L	1	09/03/21	MH	E624.1
1,4-Dichlorobenzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Benzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Bromodichloromethane	9.1	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Bromoform	0.89	J 5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Bromomethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Carbon tetrachloride	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Chlorobenzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Chloroethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Chloroform	9.5	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Chloromethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
cis-1,2-Dichloroethene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
cis-1,3-Dichloropropene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Dibromochloromethane	6.3	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Ethylbenzene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
m&p-Xylenes	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Methyl t-butyl ether (MTBE)	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Methylene chloride	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
o-Xylene	ND	5.0	0.45	ug/L	1	09/03/21	MH	E624.1
Tetrachloroethene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Toluene	0.52	J 5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Total Xylenes	ND	5.0	5.0	ug/L	1	09/03/21	MH	E624.1
trans-1,2-Dichloroethene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
trans-1,3-Dichloropropene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Trichloroethene	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Trichlorofluoromethane	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
Vinyl chloride	ND	5.0	0.50	ug/L	1	09/03/21	MH	E624.1
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	101			%	1	09/03/21	MH	70 - 130 %
% Bromofluorobenzene	97			%	1	09/03/21	MH	70 - 130 %
% Dibromofluoromethane	106			%	1	09/03/21	MH	70 - 130 %
% Toluene-d8	102			%	1	09/03/21	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Total Cyanide:

Chlorine was present; Sample was de-chlorinated prior to digestion/analysis. (EPA requires dechlorination at time of sampling.) A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

September 13, 2021

Reviewed and Released by: Helen Geoghegan, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

September 13, 2021

QA/QC Data

SDG I.D.: GCJ19988

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 590698 (mg/L), QC Sample No: CJ19853 (CJ19988)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	96.0			99.9			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 590802 (mg/L), QC Sample No: CJ20437 (CJ19988)													
<u>ICP Metals - Aqueous</u>													
Arsenic	BRL	0.0020	<0.002	<0.0020	NC	97.5	97.0	0.5	96.2			80 - 120	20
Cadmium	BRL	0.0005	<0.001	<0.0005	NC	97.2	96.8	0.4	93.0			80 - 120	20
Chromium	BRL	0.0005	<0.001	0.0007	NC	97.6	96.8	0.8	94.3			80 - 120	20
Copper	BRL	0.0025	0.009	0.0084	NC	101	100	1.0	102			80 - 120	20
Lead	BRL	0.0010	<0.001	<0.0010	NC	98.7	98.6	0.1	95.8			80 - 120	20
Manganese	BRL	0.0005	0.160	0.160	0	98.9	98.6	0.3	95.0			80 - 120	20
Molybdenum	BRL	0.0025	<0.003	<0.0025	NC	100	99.0	1.0	97.2			80 - 120	20
Nickel	BRL	0.0005	0.005	0.0045	10.5	98.7	98.4	0.3	94.8			80 - 120	20
Selenium	BRL	0.0050	<0.005	<0.0050	NC	90.9	90.8	0.1	88.9			80 - 120	20
Silver	BRL	0.0005	<0.001	<0.0005	NC	95.4	95.8	0.4	96.4			80 - 120	20
Zinc	BRL	0.0020	0.083	0.0819	1.30	95.8	95.4	0.4	94.5			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.



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QA/QC Report

September 13, 2021

QA/QC Data

SDG I.D.: GCJ19988

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 591319 (mg/L), QC Sample No: CJ21229 (CJ19988)													
Total Cyanide	BRL	0.010	0.102	0.103	1.00	102			94.0			90 - 110	20
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 590611 (mg/L), QC Sample No: CJ19902 (CJ19988 (10X))													
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	102			104			70 - 130	20
B.O.D./5 day GGA BOD						107						84 - 115	20
QA/QC Batch 590946 (mg/L), QC Sample No: CJ19903 (CJ19988)													
Total Suspended Solids	BRL	2.5	6.7	7.3	NC	108						85 - 115	20
QA/QC Batch 591534 (mg/L), QC Sample No: CJ19988 (CJ19988)													
Oil and Grease by EPA 1664A	BRL	1.4				96.0	98.0	2.1				85 - 115	20
Comment:													
Additional: MS acceptance range 75-125%.													
QA/QC Batch 591165 (mg/L), QC Sample No: CJ20520 (CJ19988)													
Phosphorus, as P	BRL	0.01	4.10	4.19	2.20	97.8			101			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 591233 (mg/L), QC Sample No: CJ19322 (CJ19988)													
Ammonia as Nitrogen	BRL	0.05	<0.10	0.12	NC	94.9			100			90 - 110	20



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

September 13, 2021

QA/QC Data

SDG I.D.: GCJ19988

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 590759 (ug/L), QC Sample No: CJ19372 (CJ19988)										
<u>Volatiles - Waste Water</u>										
1,1,1-Trichloroethane	ND	1.0	84	84	0.0				75 - 125	20
1,1,2,2-Tetrachloroethane	ND	0.50	81	80	1.2				60 - 140	20
1,1,2-Trichloroethane	ND	1.0	90	89	1.1				71 - 129	20
1,1-Dichloroethane	ND	1.0	95	92	3.2				72 - 128	20
1,1-Dichloroethene	ND	1.0	81	81	0.0				50 - 150	20
1,2-Dichlorobenzene	ND	1.0	87	86	1.2				63 - 137	20
1,2-Dichloroethane	ND	1.0	91	89	2.2				68 - 132	20
1,2-Dichloropropane	ND	1.0	98	98	0.0				40 - 160	20
1,3-Dichlorobenzene	ND	1.0	92	90	2.2				73 - 127	20
1,4-Dichlorobenzene	ND	1.0	85	84	1.2				63 - 137	20
2 chlorethyl vinyl ether	ND	1.0	84	80	4.9				50 - 150	20
Acrolein	ND	5.0	90	88	2.2				50 - 150	20
Acrylonitrile	ND	5.0	83	80	3.7				50 - 150	20
Benzene	ND	0.70	97	95	2.1				64 - 136	20
Bromodichloromethane	ND	0.50	92	91	1.1				65 - 135	20
Bromoform	ND	1.0	77	75	2.6				71 - 129	20
Bromomethane	ND	1.0	90	89	1.1				40 - 160	20
Carbon tetrachloride	ND	1.0	91	91	0.0				73 - 127	20
Chlorobenzene	ND	1.0	89	87	2.3				66 - 134	20
Chloroethane	ND	1.0	89	89	0.0				40 - 160	20
Chloroform	ND	1.0	90	89	1.1				67 - 133	20
Chloromethane	ND	1.0	93	93	0.0				40 - 160	20
cis-1,2-Dichloroethene	ND	1.0	99	99	0.0				69 - 131	20
cis-1,3-Dichloropropene	ND	0.40	101	99	2.0				40 - 160	20
Dibromochloromethane	ND	0.50	87	83	4.7				67 - 133	20
Ethylbenzene	ND	1.0	91	88	3.4				59 - 141	20
m&p-Xylene	ND	1.0	91	90	1.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	94	92	2.2				70 - 130	30
Methylene chloride	ND	1.0	98	97	1.0				60 - 140	20
o-Xylene	ND	1.0	96	93	3.2				70 - 130	30
Tetrachloroethene	ND	1.0	83	83	0.0				73 - 127	20
Toluene	ND	1.0	93	91	2.2				74 - 126	20
trans-1,2-Dichloroethene	ND	1.0	92	92	0.0				69 - 131	20
trans-1,3-Dichloropropene	ND	0.40	96	94	2.1				50 - 150	20
Trichloroethene	ND	1.0	87	86	1.2				66 - 134	20
Trichlorofluoromethane	ND	1.0	82	82	0.0				48 - 152	20
Vinyl chloride	ND	1.0	93	94	1.1				40 - 160	20
% 1,2-dichlorobenzene-d4	103	%	97	98	1.0				70 - 130	30
% Bromofluorobenzene	99	%	101	100	1.0				70 - 130	30
% Dibromofluoromethane	127	%	101	103	2.0				70 - 130	30
% Toluene-d8	104	%	102	102	0.0				70 - 130	30

QA/QC Data

SDG I.D.: GCJ19988

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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Comment:

The MS/MSD are not reported for this batch.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference



Phyllis Shiller, Laboratory Director
September 13, 2021

Monday, September 13, 2021

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCJ19988 - CEMCO

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
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Analysis Comments

September 13, 2021

SDG I.D.: GCJ19988

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.



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NY Temperature Narration

September 13, 2021

SDG I.D.: GCJ19988

The samples in this delivery group were received at 1.4°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823

WC
JPK

Temp 1.4 Pg of

Data Delivery:
 Fax #: _____
 Email: Cemco59@gmail.com

Client Services (860) 645-8726

Customer: Cemco Water and Wastewater Specialists, Inc. Project: Mahopac Treatment Trailer Project P.O.: _____
 Address: 59 Healey Lane Report to: Cemco Phone #: 845-878-9711
Stormville, NY 12582 Invoice to: Cemco Fax #: 845-878-6578

Client Sample - Information - Identification
 Sampler's Signature: _____ Date: 9/13

Matrix Code:
 DW=drinking water WW=wastewater S=soil/solid O=oil
 GW=groundwater SL=sludge A=air X=other

Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
19988	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	9/3/2021	11am
	backwash	ww	3-Sep	11am
	backwash	ww	3-Sep	11am

Analysis Request											
BOD	TSS	Cyanide	624	metals	oil and grease	ammonia and TP	X	X	X	X	
X											
	x										
		x									
			x								
				x							
					x						
						x					
							x				
								x			

Relinquished by: _____ Accepted by: Manja Florio Date: 9/13 Time: 13:30
 Turnaround: 1 Day* 2 Days* 3 Days* Standard Other
 * SURCHARGE APPLIES

NJ
 Res. Criteria Non-Res. Criteria Impact to GW Soil Cleanup Criteria GW Criteria

NY
 TAGM 4046 GW TAGM 4046 SOIL NY375 Unrestricted Soil NY375 Residential Soil NY375 Restricted Non-Residential Soil

Data Format
 Phoenix Std Report Excel PDF GIS/Key EquiS NJ Hazsite EDD NY EZ EDD (ASP) Other _____

Data Package
 NJ Reduced Deliv. * NY Enhanced (ASP B) * Other _____

Comments, Special Requirements or Regulations:
NO TRENDS per body

CI2 residual: _____

State where samples were collected: NY



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report
 December 02, 2021

FOR: Attn: Roy Barticcio
 CEMCO Water & Wastewater Specialists Inc
 59 Healey Lane
 Stormville, NY 12582

Sample Information

Matrix: DRINKING WATER
 Location Code: CEMCO
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by:
 Received by: CP
 Analyzed by: see "By" below

Date Time
 11/22/21 13:09
 11/23/21 17:22

Laboratory Data

SDG ID: GCJ84535
 Phoenix ID: CJ84537

Project ID: MAHOPAC TREATMENT TRAILER
 Client ID: TREATMENT TRAILER WASTE

Parameter	Result	RL/ PQL	DIL	Units	AL	MCL	MCLG	Date/Time	By	Reference
Iron	35.1	0.20	1	mg/L		0.3		11/27/21	CPP	E200.7
*** Iron exceeds MCL levels of 0.3 ***										
Manganese	51.4	0.20	10	mg/L		0.3		12/01/21	EK	E200.7
*** Manganese exceeds MCL levels of 0.3 ***										
Total Metal Digestion	Completed							11/24/21		E200.5/E200.7

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected
 BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.)
 AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

Comments:

Maximum Contaminant Level (MCL): New York State Public Health Law, Section 225 Part 5. The highest level of a contaminant that is allowed in drinking water. MCLs are enforceable standards.

Secondary DW Maximum Contaminant Level Goal (MCLG): 40 CFR Part 143 Secondary Goals. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are non-enforceable public health goals.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

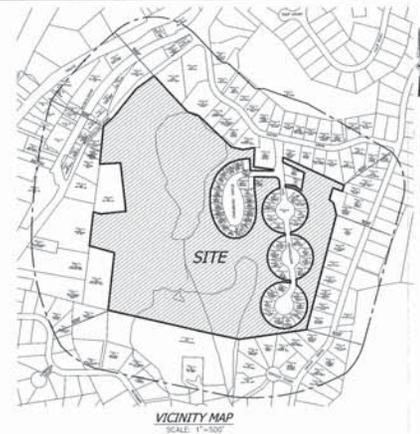
Phyllis Shiller, Laboratory Director

December 02, 2021

Reviewed and Released by: Helen Geoghegan, Project Manager

OWNERS WITHIN 500 FEET:

OWNER	ADDRESS	OWNER	ADDRESS	OWNER	ADDRESS	OWNER	ADDRESS	OWNER	ADDRESS																																																																																																		
75.16-1-1	GEORGE P. & TRACEY E. SHAWNO 183 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-1-41	MATTHEW & CATHALYN TURRINO 33 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-29	JACK D. & ROBIN W. ZENCHOCK 33 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-30	DOUGLAS J. & MICHAEL G. HONEY 33 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-31	ARTHUR & MARIA L. CERRONE 39 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-32	TERENCE & KRISTEN MORSE 41 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-33	JOSEPH & CHRISTINA LACOPARINA 43 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-34	JONHETA A. & ANDREW T. DYER 44 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-35	ELVIS & APRIL J. LEUNG 42 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-36	SCOTT W. OGDEN 42 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-37	JAMES CLERBERT & MARIANNA PACILLA 44 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-38	ANTHONY & PATRICIA DONATEO 36 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-39	DAN & ANDRINE TAVELOFF 34 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-40	KENNETH L. & JANET SCHWOLZER 38 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-41	JERRY & ANTONIETTA MENER 38 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-42	MATTHEW & SARAHATHA A. CLARK 34 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-43	DOMENICA ROSSOMANDO 18 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-44	ADAM & LAM PHU 18 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-45	JOSEPH W. & MARLENE S. CARABELLO-ROSSI 14 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-46	PETER J. & TERESA M. CARABELLO 12 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-47	JERRY A. & KARENNE A. TUTTLE 9 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-48	KEVIN & RALPH A. H. FARQUHAR 15 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-49	JUL BONELLO 15 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-50	DEBASTETA FAMILY TRUST 17 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-51	SARAHBA CIPRIANO 18 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-52	CHARLES M. & PAMELA E. BELLER 21 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-53	DANIEL & JUAN MARIE SHERMAN 23 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-54	KATHY DONATEO 27 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-55	WY CONE-UMC CT WEST DISTRICT ATTN: RICHARDSON 2 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-56	MARKET BOUTIQUE 34 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-57	KENNETH & ROSAMUND WALDRON 121 DANIELA DRIVE MAHOPAC, NY 10541	75.20-2-58	HUGH F. & HELEN W. BRIDGMAN 129 DANIELA DRIVE MAHOPAC, NY 10541	75.20-2-59	GREYHAT ATEL G. DEBASTETA VARELLA 11 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-60	HOWARD & DEBRA PUSO 15 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-61	JOHN & DANIELA LOPEZ 17 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-62	DAVID & CARMEN GARCIA 23 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-63	LINDA CARLUCCI 23 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-64	JENNIFER FIDOR 18 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-65	MICHAEL & EILEEN STEWEN 18 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-66	JOSEPH & BIRN MARIE D'AMORE 14 CONVENTRY DR MAHOPAC, NY 10541	75.20-2-67	ANDREW & PATRICIA LITZ 20 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-68	PATRICIA M. & ALDEA M. DALEY 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-69	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-70	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-71	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-72	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-73	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-74	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-75	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-76	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-77	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-78	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-79	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-80	JACKIE & TRACY FORMAN 21 NOTTINGHAM WAY MAHOPAC, NY 10541



TAX MAP REFERENCE:
TOWN OF CARMEL TAX MAP
SECTION 75.25, BLOCK 2, LOT 88

ADDRESS:
BUCKS HOLLOW ROAD
MAHOPAC, NY 10541

AREA:
23.563 ACRES

DATUM:
VERTICAL: NAVD 1988
HORIZONTAL: NAD 1983, NEW YORK STATE
PLANE COORDINATE SYSTEM,
EAST ZONE

SUBMISSION REFERENCES:
"MAP OF HENTERS' PLAN" FILED IN THE
PUTNAM COUNTY CLERK'S OFFICE ON
MARCH 28, 1988, AS MAP NO. 2236.

SECTION	DATE	DESCRIPTION
4	10-25-22	PER PLANNING BOARD 2-10-22
3	02-07-20	PER 2-3-22 636 MEETING
2	01-25-22	PER PW MTS 1-13-22, PER EOB & PB SUBMISSION
1	11-15-21	PER PW MTS 9-22-21

ATZL, NASHER & ZIGLER P.C.
ENGINEERS - SURVEYORS - PLANNERS
232 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5643
E-mail: info@atnz.com
Web: www.atnz.com

MAHOPAC WELLS 1, 2 & 3

**TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK**

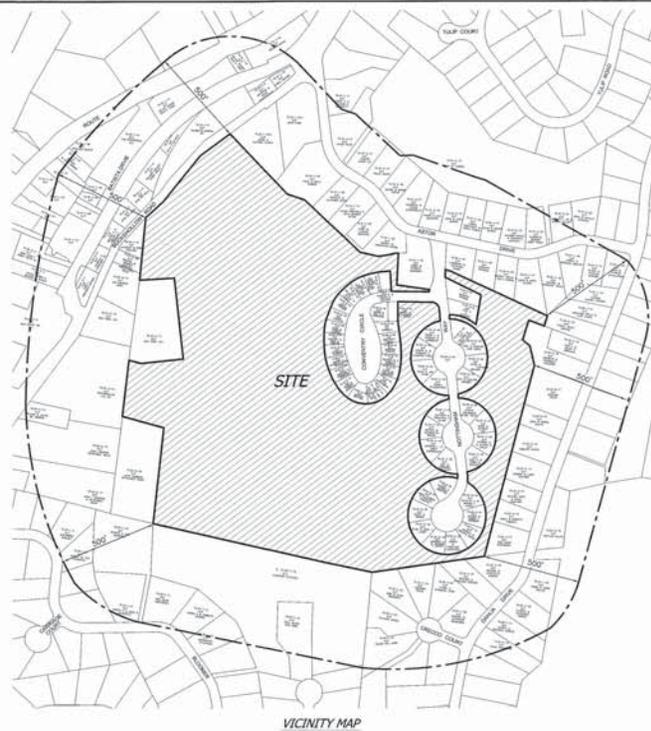
LOCATION MAP

DATE	CHECKED BY	SCALE	DRAWING NO.
08/01/2021	JWA	AS SHOWN	4870



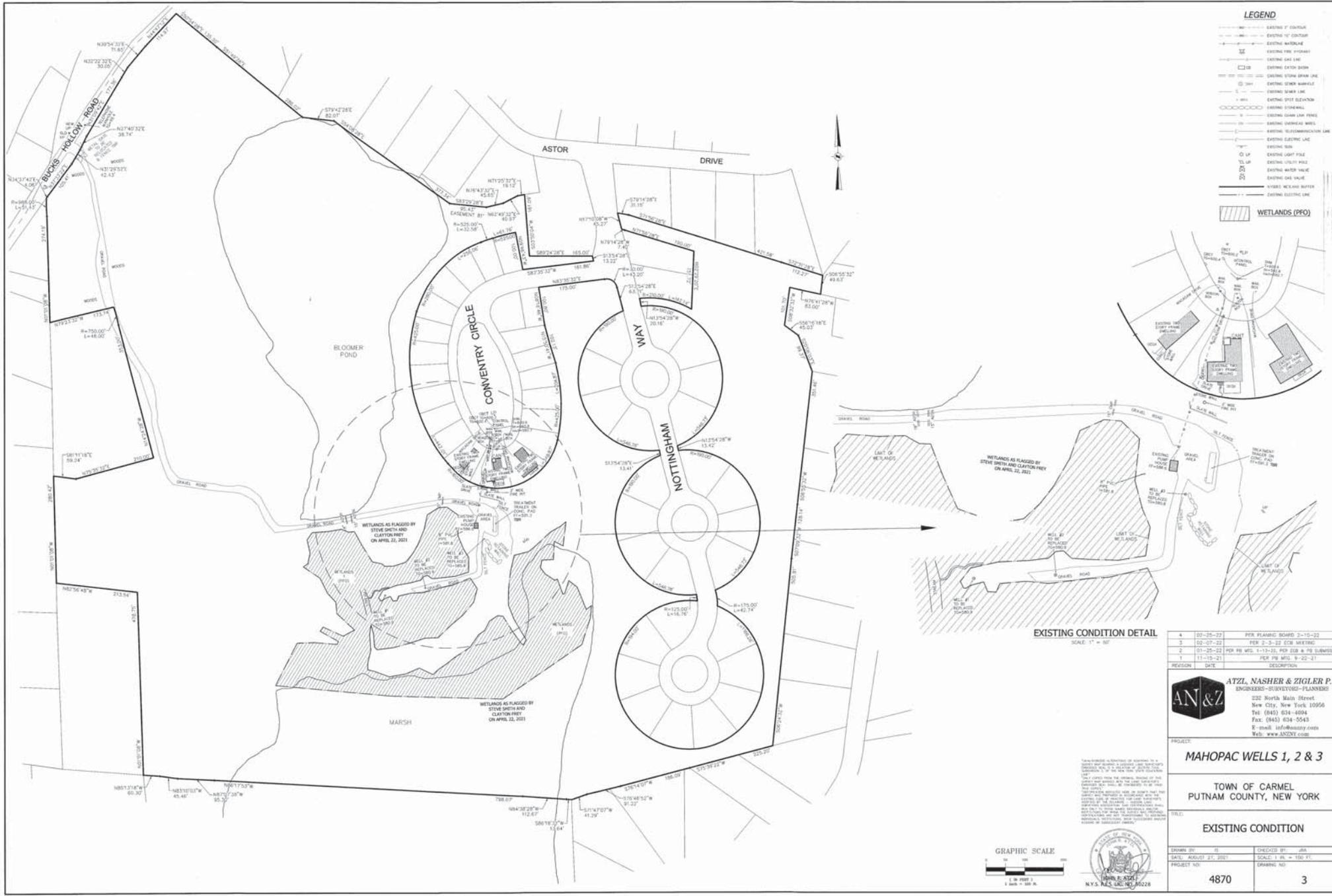
OWNERS WITHIN 500 FEET:
TOWN OF CARMEL, TAX MAP

75.16-1-17	GEORGE P. & TRACEY E. SALIANO 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-1-43	JAMES & CAROLINE COOKE 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-20	KENI & COLLEEN BROWNE 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-41	ANTHONY & ROSE M. FARANO PO BOX 454 MAHOPAC, NY 10541	75.17-1-25	DAVID H. & JENNIFER W. HETTINGER 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-2	JOHN BARTISTA 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-1-42	JACOB & TRACEY WIGGAM 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-26	VIVIAN KOCOSIAC REVOC TRUST 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-42	DAVID & CARMEN CARDANO 37 CONVENTY DR MAHOPAC, NY 10541	75.17-1-34	DOMS E. BERASCO 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-3	JOHN BARTISTA 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-1-41	MATTHEW & CAROLYN TURKICE 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-27	MARK & PATRICE LEFT 28 CONVENTY DR MAHOPAC, NY 10541	75.20-2-43	LINDA CARTICO 14 CONVENTY DR MAHOPAC, NY 10541	75.17-1-23	DONALD A. & SALLI A. MESSI 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-4	KALACZ REVOOC LIVING TRUST 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-10	NORBERT VOGL 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-28	PATRICIA M. & ALTHEA M. BAILEY 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-44	JENNIFER FISCHER 14 CONVENTY DR MAHOPAC, NY 10541	75.17-1-22	BRIAN & MARTIN COYNE 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-6	ZOLA V. KATZOLD 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-11	DONALD & MEGAN W. HARTNETT 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-29	JACK E. & NORM M. ZENONOK 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-45	MONALD J. & CLEEN OTWINE 14 CONVENTY DR MAHOPAC, NY 10541	75.17-1-21	PETER & YVONNE PELDOMM 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-8	CHARLES MARLA INC 851 SOUTH LAKE ROAD MAHOPAC, NY 10541	75.16-2-12	TOM OF CARMEL 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-30	DOUGLAS E. & MARISA C. HONEY 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-46	JOSEPH & BARRI MARIE D'AMORE 14 CONVENTY DR MAHOPAC, NY 10541	75.17-1-20	MICHAEL & FLORENCE LAVELLE 112 DANIA DRIVE MAHOPAC, NY 10541
75.16-1-9	STORACE & SENE KANIGOUSIS 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-13	DAVE KESH 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-31	AFRAN & MARIA L. CERESKO 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-49	ROHANE & BRIDGET COVONE 14 CONVENTY DR MAHOPAC, NY 10541		
75.16-1-10	JAMES MCRAE PO BOX 472 MAHOPAC, NY 10541	75.16-2-14	MUNTER JASON LLC 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-32	TERENCE & HELEN MOORE 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-70	AR HOLDINGS CORP 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541		
75.16-1-15	BROS BENJAMIN 485 ROUTE 6 MAHOPAC, NY 10541	75.16-2-15	FRANK QUINN 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-33	JOSEPH & CAROL ANN LACOPARNA 43 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-71	NEEDON NEW YORK INC PO BOX 3785 AUSTON, TX 75001		
75.16-1-16	HILLTOP MAJOR REALTY CORP 485 ROUTE 6 MAHOPAC, NY 10541	75.16-2-16	MAYNE & SUSAN SPEAR 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-34	JENNIFER A. & ANDREW T. OWEN 44 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-72	NEEDON NEW YORK INC PO BOX 3785 AUSTON, TX 75001		
75.16-1-17	HILLTOP MAJOR REALTY CORP 485 ROUTE 6 MAHOPAC, NY 10541	75.16-2-17	DONORNO & LORIS SACORIELLO 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-35	ELVIS & APRIL J. LAMIC 42 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-73	SUCKERHOLE LLC 122 4 SAUNDERS COURT MAHOPAC, NY 10541		
75.16-1-18	ACHILLES DOWNS 485 ROUTE 6 MAHOPAC, NY 10541	75.16-2-18	FRANK & LISA GUARDINO 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-36	SCOTT M. O'NEILL 42 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-74	WILLIAM & LOUISE DE CASPER 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541		
75.16-1-19	FBI PROPERTIES, LLC 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-19	JOHN & LINDA MARINA 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-37	JANET DEWEEK & BERDANA FARRELL 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-75	JOHN LEMASO REVOCABLE TRUST 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541		
75.16-1-20	THOMAS & SENE SWANE 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-30	LYDIA BROWNEZ & ERICA WIEKA 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-38	ANTHONY & PATRICK DEWATEAT 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-76	JOHN LEMASO REVOCABLE TRUST 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541		
75.16-1-21	THOMAS & SENE SWANE 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-31	KEVIN & MELBA DANNO 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-39	DAVID & ANDRZEJ TAVELINSKY 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-77	JOHN LEMASO REVOCABLE TRUST 140 BUCKS HOLLOW ROAD MAHOPAC, NY 10541		
75.16-1-22	SCOTT NICHOLS 425 ROUTE 6 MAHOPAC, NY 10541	75.16-2-32	KLADIMIR KUNKA & BOHEMLIA KUNKA 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-40	KENNETH L. & JANE SCHMIDT 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-32	IVAN BONAVANTO 14 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-23	SCOTT NICHOLS 425 ROUTE 6 MAHOPAC, NY 10541	75.16-2-33	FACONITA LEBROCK IRREV TRUST 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-41	JEFFREY & ANTONIETTA WENNER 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-31	JOSEPH & BERDANA WENNER 65 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-24	JACQUE REALTY CORP 425 ROUTE 6 MAHOPAC, NY 10541	75.16-2-34	HERBERT F. JR. & ANNE M. HILLET 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-42	MATTHEW & SAMANTHA A. CLARK 24 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-30	YVONNE & CATHERINE TAPPEY 14 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-27	MIRVA REAL ESTATE LLC 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.16-2-35	JOHN & PHYLIS DARBY 37 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-43	DORNA KOSZMADKO 18 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-29	EDWIN & MARIE TRILLAS 85 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-28	BOHANE & KIZILBE FILIP 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-2	BRUCE FAULKNER TRUST JR 3 SOUTH VESPA LANE MAHOPAC, NY 10541	75.20-2-44	ADAM & LARI SHAW 16 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-28	MICHAEL & CHRISTOTTE MARON 17 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-29	SANTA & ROBERT PERRINO 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-3	NOBLE STRON & BARLE 160 ROUTE 6 MAHOPAC, NY 10541	75.20-2-45	JOSEPH M. & MARLENE S. CAMARON-ROSE 14 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-26	MICHAEL & CATHERINE SCARABIA 2 CONDO COURT MAHOPAC, NY 10541		
75.16-1-30	THOMAS SWANE 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-5	DAVID ROYAL SR LLC 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-46	PETER E. & TERESA M. GARDNER 12 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-1-25	PAMELA & KAROLINA ZABA 11 CONDO COURT MAHOPAC, NY 10541		
75.16-1-81	ANTHONY & ROSE FABIANO 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-7	ITALIAN AMERICAN CLUB INC PO BOX 378 MAHOPAC, NY 10541	75.20-2-47	JEFFREY A. & KATHLEEN A. TUTTLE 3 CONVENTY DR MAHOPAC, NY 10541	75.20-1-24	IRVING PHAS PO BOX 378 MAHOPAC, NY 10541		
75.16-1-83	JOHN FAIN 7 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-8	AGRIANA CECCHETTI PO BOX 378 OUSTON FALLS, NY 10599	75.20-2-48	KERAN & NAL A. H. FARUQHAR 13 CONVENTY DR MAHOPAC, NY 10541	75.20-1-23	JESSE J. DANIA BENNETT 15 CONDO COURT MAHOPAC, NY 10541		
75.16-1-83	JOHN & WENDY W. JAGGA 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-11	TRIA MARIE WAPSWORTH 85 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-49	JILL BONELLO 15 CONVENTY DR MAHOPAC, NY 10541	75.20-1-22	MELINDA LINDO 11 CONDO COURT MAHOPAC, NY 10541		
75.16-1-59	PAUL & HELEN HARRIS 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-12	JAMES & ROBERTA FAGGIO 85 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-50	DEBASTITA FAMILY TRUST 17 CONVENTY DR MAHOPAC, NY 10541	75.20-1-21	OLGA HILL CORP 232 SUNBROOK AVENUE YONKERS, NY 10570		
75.16-1-56	SHEDDO & GLENNER LOPEZ 23 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-13	MICHAEL HART & DIANA SMOTHERS 85 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-51	BARBARA O'BRIEN 19 CONVENTY DR MAHOPAC, NY 10541	75.20-1-18	SHARON WINTER NEW YORK PO BOX 378 PHOENIX, AZ 85006		
75.16-1-57	ANITA MICHAELS & GRAY SHELLE AYDIE MAHOPAC, NY 10541	75.20-2-14	ROBERT & LANA BOSTER 87 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-52	CHARLES M. & PAMELA E. BLISSER 21 CONVENTY DR MAHOPAC, NY 10541	75.20-1-12	LINDA N. WENK 44 BLOOMER ROAD MAHOPAC, NY 10541		
75.16-1-56	MARK & LORNA WHITTERS 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-15	DELUYS GARDIA PO BOX 378 MAHOPAC, NY 10541	75.20-2-53	TERENCE & BARRY BETH WHELE 37 CONVENTY DR MAHOPAC, NY 10541	75.20-1-12	DANIEL & JEAN MARIE SHERMAN 23 CONVENTY DR MAHOPAC, NY 10541		
75.16-1-55	JORDAN & SAMANTHA WOSER 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-16	JOHN & DONNA BROWN 107 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-54	KATHY SCHNEIDER 27 CONVENTY DR MAHOPAC, NY 10541	75.20-1-11	WALTER & JUDITH 54 BLOOMER ROAD MAHOPAC, NY 10541		
75.16-1-54	JAMES & PATRICIA WINGMAN 45 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-17	ROBERT WELZ 117 DANIA DRIVE MAHOPAC, NY 10541	75.20-2-55	JOHN W. & JUDITH C. WELLS 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-1-10	OSBERT & LUCY SACCOMBI 85 BLOOMER ROAD MAHOPAC, NY 10541		
75.16-1-50	LARRENCE & KATHLEEN HEANE 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-18	KENNETH & ROSAMUND WALSON 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-56	HUGO F. & HELEN M. BRENNAN 34 CONVENTY DR MAHOPAC, NY 10541	75.20-1-9	JOSEPH D. & JOHN S. MAROTTA 85 BLOOMER ROAD MAHOPAC, NY 10541		
75.16-1-49	CARLOS PROSDOCIMO 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-19	HUGO F. & HELEN M. BRENNAN 34 CONVENTY DR MAHOPAC, NY 10541	75.20-2-56	WALTER BUFFONE 34 CONVENTY DR MAHOPAC, NY 10541	75.20-1-8	OSBERT & LUCY SACCOMBI 85 BLOOMER ROAD MAHOPAC, NY 10541		
75.16-1-48	THEODORE CEDAN & KELLY NORMAN 37 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-20	FAMILY TRUST CRECINO 171 BUCKS HOLLOW ROAD MAHOPAC, NY 10541	75.20-2-57	JAMES & SANDRA WARMELLI 34 CONVENTY DR MAHOPAC, NY 10541	75.20-1-7	ALFONSO MARINO 90 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-47	LOUIS & IRENA GAURO 49 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-21	EDDIEVAIR ARLE G. EDDIEVAIR VANDANA 19 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-58	ANTHONY & ROSAMUND W. PERLIZZA 32 CONVENTY DR MAHOPAC, NY 10541	75.20-2-10	STEPHEN MILLER 90 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-46	JOSEPH & JOSEPHINE BRUSSO 49 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-22	ROBERT & ESTER RUSSO 19 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-59	GREGORY A. WILLIAMS & MELINDA MARRAS 28 CONVENTY DR MAHOPAC, NY 10541	75.20-2-9	ANTHONY CHICH & ERIN CORDE 107 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-45	MICHAEL & MARLENE WELZ 73 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-23	RON & SARAH LUCY CARP 17 NOTTINGHAM WAY MAHOPAC, NY 10541	75.20-2-60	KATHLEEN BARRETT 26 CONVENTY DR MAHOPAC, NY 10541	75.17-1-38	WALTER J. & LEE M. JOHNSONS 107 DANIA DRIVE MAHOPAC, NY 10541		
75.16-1-44	VINCENT & ANNA MARIE VACCIO 81 ASTOR DRIVE MAHOPAC, NY 10541	75.20-2-24	KEVIN & CATHLEEN BROWNE 19 NOTTINGHAM WAY MAHOPAC, NY 10541			75.17-1-28	WALTER J. & LEE M. JOHNSONS 107 DANIA DRIVE MAHOPAC, NY 10541		



LEGEND

- EXISTING 2' CONTAIN
- EXISTING 6" CONTAIN
- EXISTING 12" CONTAIN
- EXISTING 18" CONTAIN
- EXISTING 24" CONTAIN
- EXISTING 30" CONTAIN
- EXISTING 36" CONTAIN
- EXISTING 42" CONTAIN
- EXISTING 48" CONTAIN
- EXISTING 54" CONTAIN
- EXISTING 60" CONTAIN
- EXISTING 66" CONTAIN
- EXISTING 72" CONTAIN
- EXISTING 78" CONTAIN
- EXISTING 84" CONTAIN
- EXISTING 90" CONTAIN
- EXISTING 96" CONTAIN
- EXISTING 102" CONTAIN
- EXISTING 108" CONTAIN
- EXISTING 114" CONTAIN
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- EXISTING 138" CONTAIN
- EXISTING 144" CONTAIN
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- EXISTING 174" CONTAIN
- EXISTING 180" CONTAIN
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- EXISTING 192" CONTAIN
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- EXISTING 222" CONTAIN
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- EXISTING 384" CONTAIN
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- EXISTING 402" CONTAIN
- EXISTING 408" CONTAIN
- EXISTING 414" CONTAIN
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- EXISTING 666" CONTAIN
- EXISTING 672" CONTAIN
- EXISTING 678" CONTAIN
- EXISTING 684" CONTAIN
- EXISTING 690" CONTAIN
- EXISTING 696" CONTAIN
- EXISTING 702" CONTAIN
- EXISTING 708" CONTAIN
- EXISTING 714" CONTAIN
- EXISTING 720" CONTAIN
- EXISTING 726" CONTAIN
- EXISTING 732" CONTAIN
- EXISTING 738" CONTAIN
- EXISTING 744" CONTAIN
- EXISTING 750" CONTAIN
- EXISTING 756" CONTAIN
- EXISTING 762" CONTAIN
- EXISTING 768" CONTAIN
- EXISTING 774" CONTAIN
- EXISTING 780" CONTAIN
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- EXISTING 804" CONTAIN
- EXISTING 810" CONTAIN
- EXISTING 816" CONTAIN
- EXISTING 822" CONTAIN
- EXISTING 828" CONTAIN
- EXISTING 834" CONTAIN
- EXISTING 840" CONTAIN
- EXISTING 846" CONTAIN
- EXISTING 852" CONTAIN
- EXISTING 858" CONTAIN
- EXISTING 864" CONTAIN
- EXISTING 870" CONTAIN
- EXISTING 876" CONTAIN
- EXISTING 882" CONTAIN
- EXISTING 888" CONTAIN
- EXISTING 894" CONTAIN
- EXISTING 900" CONTAIN
- EXISTING 906" CONTAIN
- EXISTING 912" CONTAIN
- EXISTING 918" CONTAIN
- EXISTING 924" CONTAIN
- EXISTING 930" CONTAIN
- EXISTING 936" CONTAIN
- EXISTING 942" CONTAIN
- EXISTING 948" CONTAIN
- EXISTING 954" CONTAIN
- EXISTING 960" CONTAIN
- EXISTING 966" CONTAIN
- EXISTING 972" CONTAIN
- EXISTING 978" CONTAIN
- EXISTING 984" CONTAIN
- EXISTING 990" CONTAIN
- EXISTING 996" CONTAIN
- EXISTING 1002" CONTAIN
- EXISTING 1008" CONTAIN
- EXISTING 1014" CONTAIN
- EXISTING 1020" CONTAIN
- EXISTING 1026" CONTAIN



LEGEND

- EXISTING 2" CONTOUR
- EXISTING 10' CONTOUR
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- EXISTING DRAIN MANHOLE
- EXISTING SEWER LINE
- EXISTING SPOT ELEVATION
- EXISTING STONEWALL
- EXISTING DRAIN LINE PANEL
- EXISTING OVERHEAD WIRE
- EXISTING TELECOMMUNICATION LINE
- EXISTING EXISTING LINE
- EXISTING SIDE
- EXISTING LIGHT POLE
- EXISTING UTILITY HOLE
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- EXISTING ELECTRIC VALVE
- EXISTING ELECTRIC LINE
- WETLANDS (PEO)



EXISTING CONDITION DETAIL
SCALE: 1" = 50'

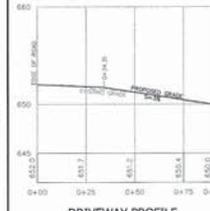
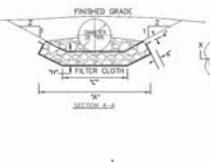
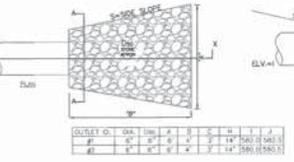
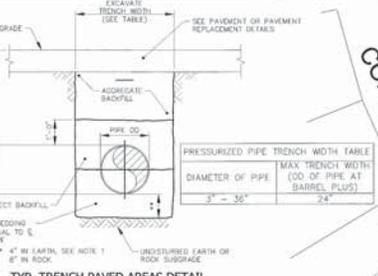
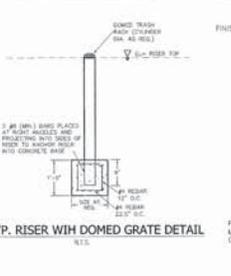
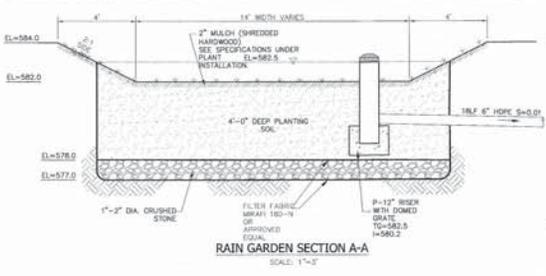
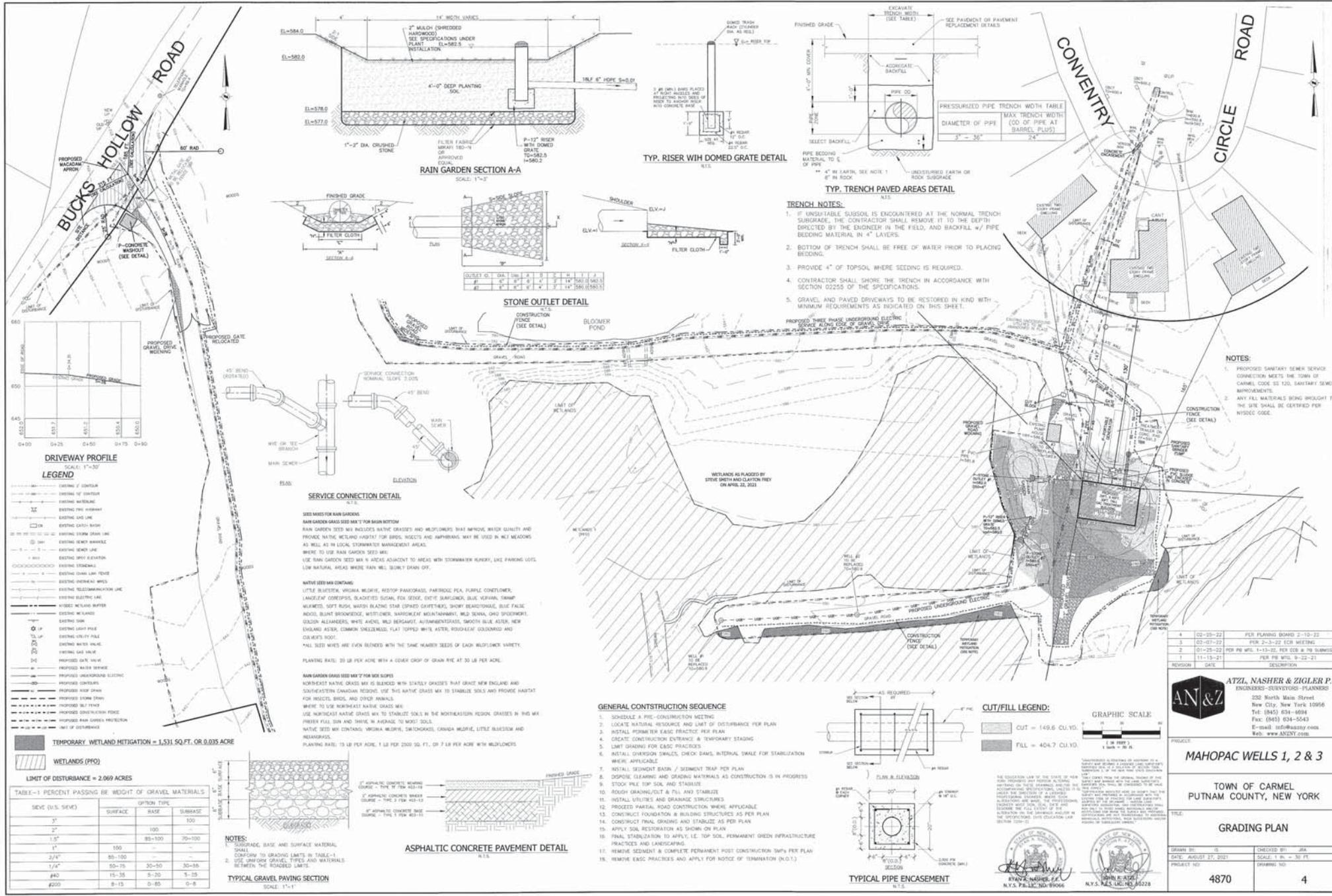
REVISION	DATE	DESCRIPTION
4	03-25-22	PER PLANNING BOARD 2-15-22
3	02-07-22	PER 2-3-22 CDB MEETING
2	01-25-22	FOR 8th WEL. 1-15-22, FOR 8th WEL. SUBMISSION
1	11-15-21	PER PSE MTD. 9-22-21

AN&Z
ATZL, NASHER & ZIGLER P.C.
 ENGINEERS-SURVEYORS-PLANNERS
 232 North Main Street
 New City, New York 10956
 Tel: (845) 634-6004
 Fax: (845) 634-5543
 E-mail: info@anzny.com
 Web: www.anzny.com

PROJECT:
MAHOPAC WELLS 1, 2 & 3
 TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK
 TITLE:
EXISTING CONDITION

DRAWN BY: JG	CHECKED BY: JGA
DATE: AUGUST 27, 2021	SCALE: 1" = 150' FT.
PROJECT NO: 4870	DRAWING NO: 3



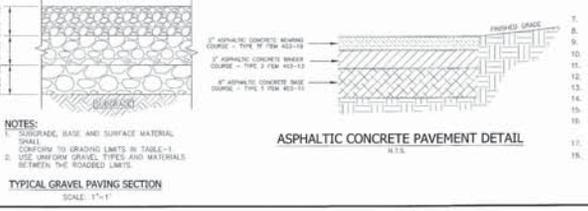


LEGEND
SCALE: 1"=30'

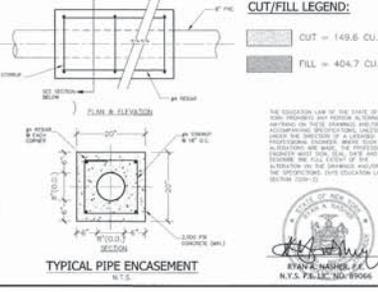
- EXISTING 2" CONDUIT
- EXISTING 4" CONDUIT
- EXISTING MATERIAL
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING SEWER MAIN LINE
- EXISTING SEWER BRANCH
- EXISTING SEWER LINE
- EXISTING SPOUT ELEVATION
- EXISTING SIDEWALK
- EXISTING CHALK LINE FENCE
- EXISTING INTERIOR WELLS
- EXISTING TELECOMMUNICATION LINE
- EXISTING BUILDING LINE
- EXISTING WETLAND BUFFER
- EXISTING WETLAND
- EXISTING DRAIN
- EXISTING LIGHT PILE
- EXISTING UTILITY POLE
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- PROPOSED GATE
- PROPOSED WATER SERVICE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED CONDUIT
- PROPOSED SEWER
- PROPOSED STONE DRAIN
- PROPOSED SLOPE
- PROPOSED SAND FILL
- PROPOSED SAND FILL PROTECTION
- WETLANDS (PRO)

TABLE-1 PERCENT PASSING BY WEIGHT OF GRAVEL MATERIALS

SEVE (U.S. SEVE)	SURFACE	BASE	SUBBASE
3"	100	100	100
2"	100	100	100
1 1/2"	85-100	70-100	70-100
1"	100	100	100
3/4"	85-100	70-100	70-100
1/2"	50-75	30-50	30-50
#40	15-35	5-20	5-35
#200	8-15	0-85	0-8



- GENERAL CONSTRUCTION SEQUENCE**
1. SCHEDULE A PRE-CONSTRUCTION MEETING
 2. LOCATE NATIONAL HIGHWAY AND LIMIT OF DISTURBANCE PER PLAN
 3. INSTALL PERMITTER EASE ACCESS PER PLAN
 4. CREATE CONSTRUCTION ENTRANCE & TEMPORARY STAGING
 5. LIMIT GRADING FOR EASE ACCESS
 6. INSTALL DIVERSION DRAINS, CHECK DAMS, INTERNAL SINKS FOR STABILIZATION WHERE APPLICABLE
 7. INSTALL SEEDING BARR / SEEDING TRAP PER PLAN
 8. DISPOSE CLEANING AND GRADING MATERIALS AS CONSTRUCTION IS IN PROGRESS
 9. STOCK PILE TOP SOIL AND STABILIZE
 10. ROUGH GRADING/CUT & FILL AND STABILIZE
 11. INSTALL UTILITIES AND GRADING STRUCTURES
 12. PROCEED PARTIAL ROAD CONSTRUCTION WHERE APPLICABLE
 13. CONSTRUCT FOUNDATION & BUILDING STRUCTURES AS PER PLAN
 14. CONSTRUCT FINAL GRADING AND STABILIZE AS PER PLAN
 15. APPLY SOIL RESTORATION AS SHOWN ON PLAN
 16. FINAL STABILIZATION TO APPLY, I.E. TOP SOIL, PERMANENT GREEN INFRASTRUCTURE PRACTICES AND LANDSCAPING
 17. REMOVE SEEDING & COMPLETE PERMANENT POST CONSTRUCTION SMP PER PLAN
 18. REMOVE EASE ACCESS AND APPLY FOR NOTICE OF TERMINATION (N.O.T.)



CUT/FILL LEGEND:
CUT = 149.6 CU.YD.
FILL = 404.7 CU.YD.

GRAPHIC SCALE:
1" = 30'

NOTES:
1. SURGRADE, BASE AND SURFACE MATERIAL SHALL CONFORM TO GRAVING LIMITS IN TABLE-1.
2. USE UNIFORM GRAVEL TYPES AND MATERIALS BETWEEN THE ROADWAY LIMITS.

TYPICAL GRAVEL PAVING SECTION
SCALE: 1"=1'

NOTES:
1. PROPOSED SANITARY SEWER SERVICE CONNECTION MEETS THE TOWN OF CARMEL CODE, SS 120, SANITARY SEWER IMPROVEMENTS.
2. ANY FILL MATERIALS BEING BROUGHT TO THE SITE SHALL BE CERTIFIED PER NYSDCC CODE.

REVISIONS:

REVISION	DATE	DESCRIPTION
1	02-25-22	PER PLANNING BOARD 2-10-22
2	03-01-22	PER 2-3-22 ECR MEETING
3	03-28-22	PER PER MTD, 3-23-22, PER JOB # 19 SUBMITTAL
4	11-15-21	PER PER MTD, 9-22-21

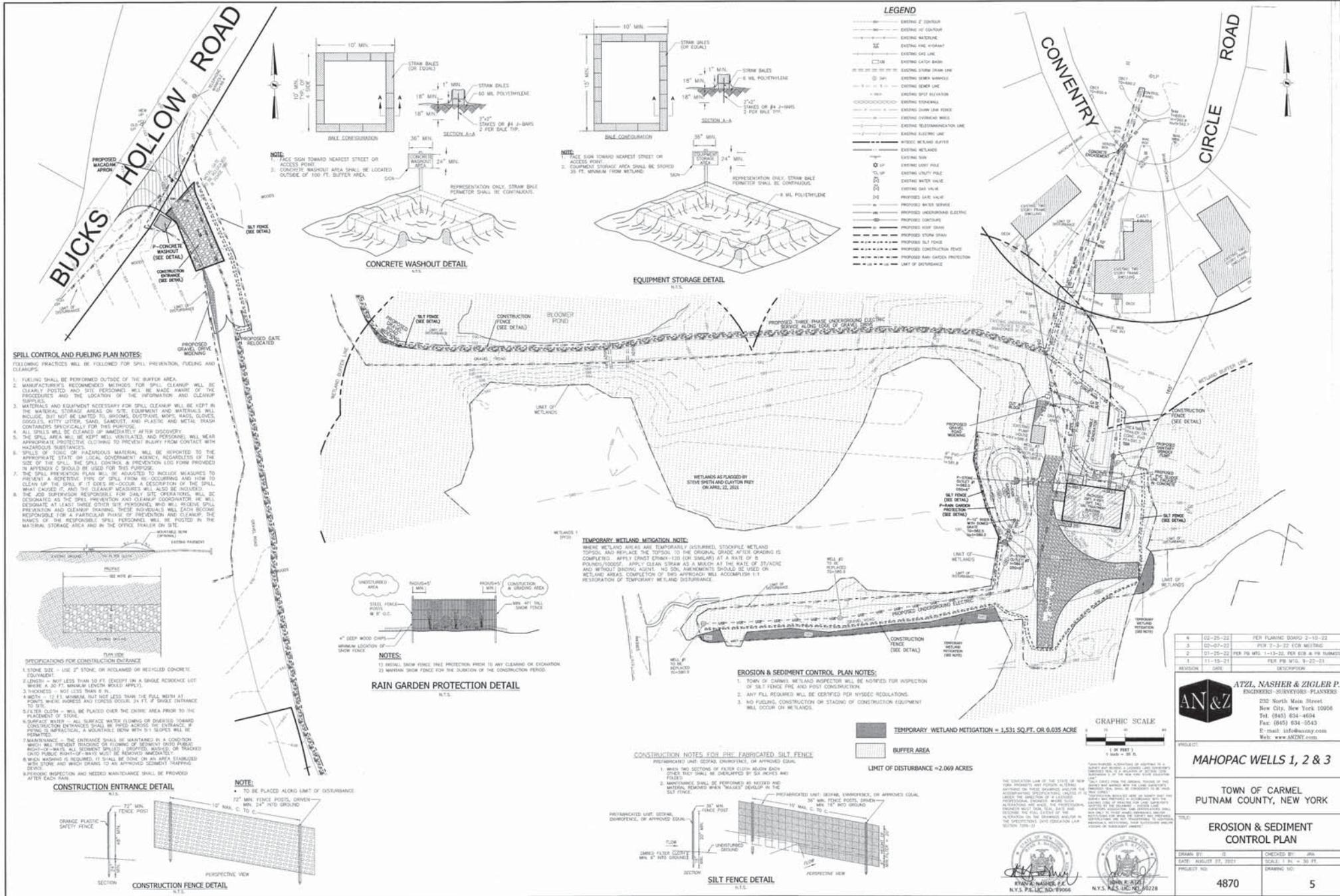
ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
332 North Main Street
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Tel: (845) 634-6694
Fax: (845) 634-5543
E-mail: info@wazy.com
Web: www.ANZNY.com

MAHOPAC WELLS 1, 2 & 3

TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

GRADING PLAN

DATE: AUGUST 27, 2021
PROJECT NO: 4870
SCALE: 1" = 30'
DRAWING NO: 4



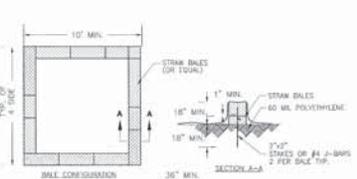
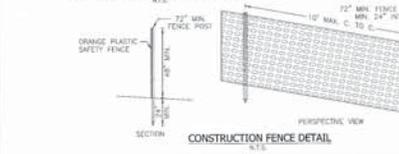
SPILL CONTROL AND FUELING PLAN NOTES:

- FUELING SHALL BE PERFORMED OUTSIDE OF THE BUFFER AREA.
- MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, SPILLERS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, WITH LEXAN LENS, SAND, SANDWICHES AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT RUNOFF FROM CONTACT WITH HAZARDOUS SUBSTANCES.
- IF THE SPILL IS OF TOXIC OR HAZARDOUS MATERIAL, IT WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL. THE SPILL CONTROL & PREVENTION LOG FORM PROVIDED IN APPENDIX C SHOULD BE USED FOR THIS PURPOSE.
- THE SPILL PREVENTION PLAN WILL BE ADAPTED TO INCLUDE MEASURES TO PREVENT A REPETITIVE TYPE OF SPILL FROM RE-OCCURRING AND HOW TO CLEAN UP THE SPILL IF IT DOES RE-OCCUR. A DESCRIPTION OF THE SPILL WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
- THE JOB SUPERVISOR RESPONSIBLE FOR DAILY SITE OPERATIONS WILL BE DESIGNATED AS THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE AT LEAST THREE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF THE RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRUCKER ON SITE.

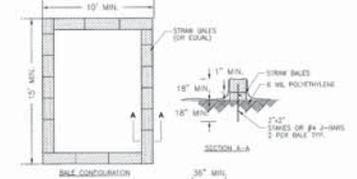
NOTIFICATIONS FOR CONSTRUCTION ENTRANCE

- STONE SIZE - USE 2" STONE OR CLEANER OR RECYCLED CONCRETE.
- FOUNDATIONS - 2" THICK - NOT LESS THAN 50 FT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FT MINIMUM LENGTH WIDTH APPLS).
- THICKNESS - NOT LESS THAN 6 IN.
- 8 INCH x 16 FT MINIMUM BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR. 24 FT. IF SINGLE ENTRANCE TO SITE.
- FILTERED CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERGED TOWARD CONSTRUCTION ENTRANCES SHALL BE PREVENTED FROM THE ENTRANCE. IF FLOW IS NEARLY STOPPED, IT SHALL BE DIVERTED TO AN APPROVED AREA.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OR SEMI-FLUID FLOWING MUDS, SLURRIES, OR OTHER MATERIALS ONTO ADJACENT AREAS. TRACKING OF MUDS, SLURRIES, OR OTHER MATERIALS ONTO ADJACENT AREAS SHALL BE STOPPED IMMEDIATELY.
- WHEN REPAIRS ARE REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
- WHEN NECESSARY, INSPECTION AND REPAIRS MAINTENANCE SHALL BE PROVIDED WITHIN EACH YEAR.

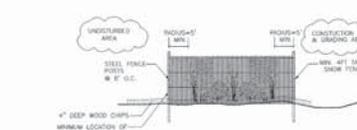
CONSTRUCTION ENTRANCE DETAIL



CONCRETE WASHOUT DETAIL



EQUIPMENT STORAGE DETAIL



RAIN GARDEN PROTECTION DETAIL



SILT FENCE DETAIL

LEGEND

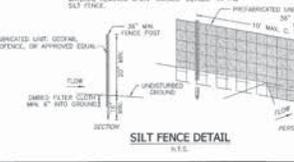
- EXISTING 2" DRAINAGE
- EXISTING 4" DRAINAGE
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING LAND BOUNDARY
- EXISTING SURVEY MARKS
- EXISTING SEWER LINE
- EXISTING SERVICE LINE
- EXISTING DOWNHILL WIRE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING ELECTRIC LINE
- EXISTING METAL PIPES
- EXISTING DRAIN
- EXISTING UTILITY POLE
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- PROPOSED GAS VALVE
- PROPOSED WATER SERVICE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND GAS
- PROPOSED UNDERGROUND WATER
- PROPOSED SEWER MAIN
- PROPOSED SEWER BRANCH
- PROPOSED CONSTRUCTION FENCE
- PROPOSED RAIN GARDEN PROTECTION
- LIMIT OF DISTURBANCE

EROSION & SEDIMENT CONTROL PLAN NOTES:

- TOWN OF CARMEL METALAND INSPECTOR WILL BE NOTIFIED FOR INSPECTION OF SILT FENCE FENCE AND POST CONSTRUCTION.
- ANY FILL REQUIRED WILL BE CERTIFIED FOR NYSDOT REGULATIONS.
- NO FUELING, CONSTRUCTION OR STAGING OF CONSTRUCTION EQUIPMENT WILL OCCUR ON METALANDS.

CONSTRUCTION NOTES FOR PRE-FABRICATED SILT FENCE

- WHEN TWO SECTIONS OF FURTER CLOTH ALONG EACH OTHER THEY SHALL BE OVERLAPPED BY 50 INCHES MIN.
- WHEN CLOTH SHALL BE PERFORMED AS ABOVE AND MATERIAL REMOVED WHEN TRACKS DEVELOP IN THE SILT FENCE.



REVISION	DATE	DESCRIPTION
4	02-25-22	PER PLANNING BOARD 2-10-22
3	02-07-22	PER 2-1-22 ECR MEETING
2	01-25-22	PER FIB MTS 1-13-22, PER ECR & FIB SUBMISSION
1	11-15-21	PER FIB MTS 9-22-21

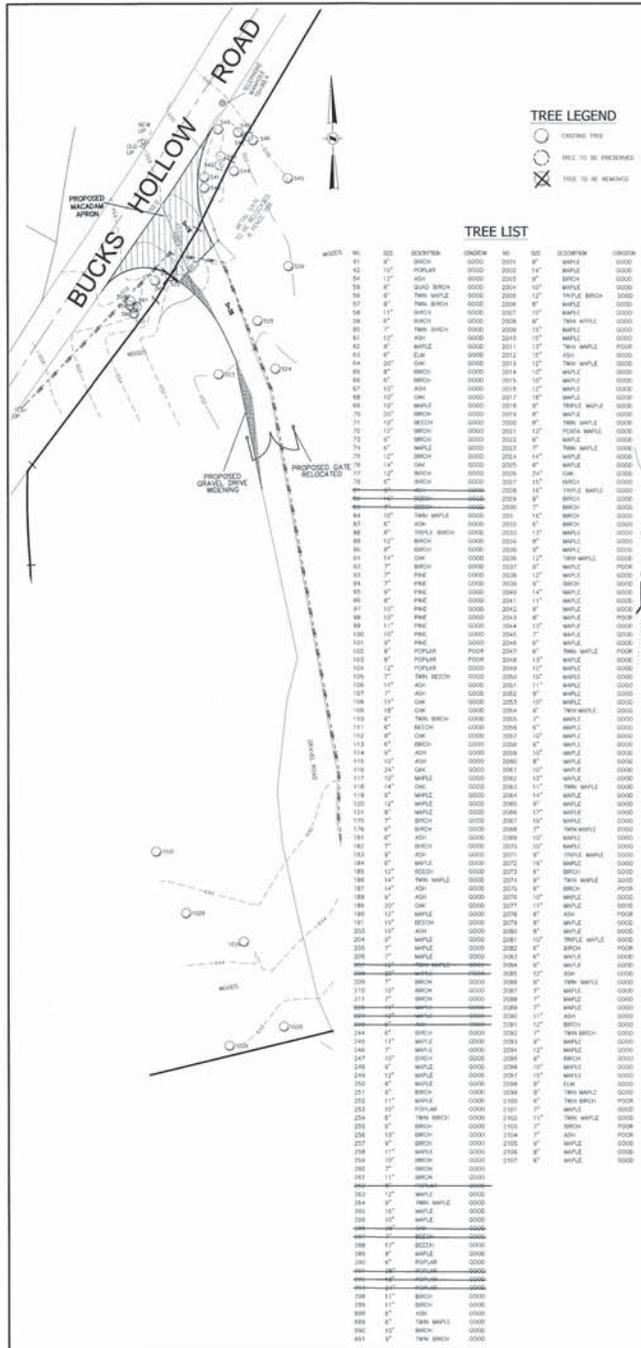
ATZL, NASHER & ZIGLER P.C.
 ENGINEERS - SURVEYORS - PLANNERS
 232 North Main Street
 New City, New York 10956
 Tel: (845) 634-4694
 Fax: (845) 634-0543
 E-mail: info@atnz.com
 Web: www.atnz.com

MAHOPAC WELLS 1, 2 & 3

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

EROSION & SEDIMENT CONTROL PLAN

DRAWN BY: IS	CHECKED BY: JWA
DATE: AUGUST 07, 2021	SCALE: 1" = 30' FT
PROJECT NO:	DRAWING NO:
4870	5



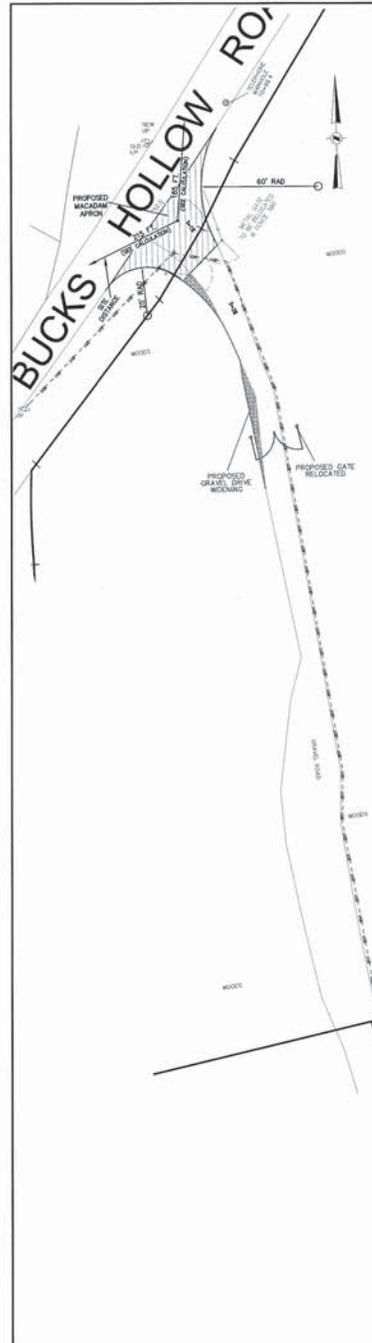
PLANTING SPECIFICATIONS:

GENERAL: ALL PLANTS, TREES, AND SHRUBS SHALL MEET THE SPECIFICATIONS FOR "PLANT MATERIAL" AS PER THE AMERICAN STANDARD FOR NURSERY STOCK. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT ALL PLANTS PRIOR TO SHIPPING AND INSTALLATION. THERE ARE TO BE NO SUBSTITUTIONS OF THE PLANTS WITHOUT THE CONSENT OF THE LANDSCAPE ARCHITECT.

PLANTING: ALL PLANTS SHALL BE PLANTED IN FITS TWO TIMES THE DIAMETER OF THE ROOT BALL OR CONTAINER. PLANT HEIGHT SHOULD BE PLACED AT OR SLIGHTLY ABOVE PREVIOUS GRADE. SHALL WACK BURLAP FROM TOP OF HULL AND CUT WIRE ON TREE BASKET. ENSURE THAT THE BURLAP IS NOT EXPOSED ABOVE GRADE. STRAINS OF WATER LOGS, STAKES AND TIES SHALL BE USED ONLY WHEN NECESSARY. WHEN THE METHOD IS USED, CARE SHOULD BE TAKEN TO PROTECT THE TREE BARK AND WIRES SHOULD BE REMOVED AS SOON AS POSSIBLE.

WATERING: ALL PLANTING BOYS (EXCEPT GROUNDCOVERS) SHALL BE MULCHED WITH THREE INCHES OF SPREADS BARK TO CONSERVE WATER AND KEEP ROOTS COVERED DURING INITIAL GROWTH STAGE. DO NOT PLACE BARK NEARLY AROUND CROWN OF PLANTS.

WINTER CARE: ALL TREES AND SHRUBS SHALL BE SPRAYED WITH AN ANTI-DESICCANT



VEHICLE TRAVELING DOWNHILL TOWARD THE SITE:
 SIGHT DISTANCE, $S = (1.47 \times V^3) \div \frac{300(g \pm 0.054)}{32.2}$

1. PERCEPTION TIME = 2.5 SEC
 2. VEHICLE DESIGN SPEED = 30 MPH
 3. DECELERATION RATE = 11.2 FT/SEC²
 4. ACCELERATION OF GRAVITY = 32.2 FT/SEC²
 5. ROAD SLOPE IN DECIMAL (NEGATIVE IF THE ROADWAY IS DOWNHILL) = - 0.056

SIGHT DISTANCE, $S = (1.47 \times 25 \times 30) \div \frac{30(11.2 \pm 0.054)}{32.2}$

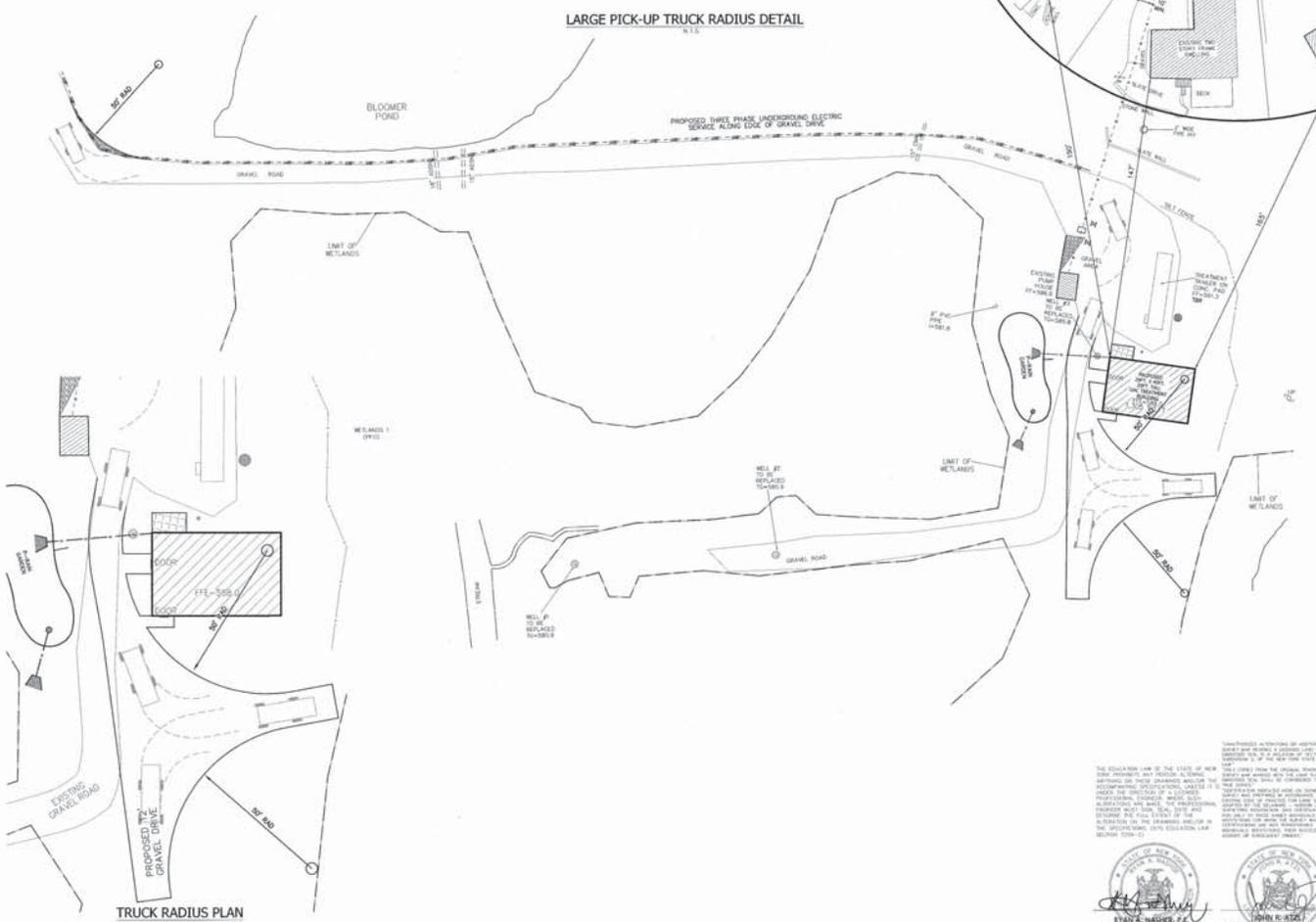
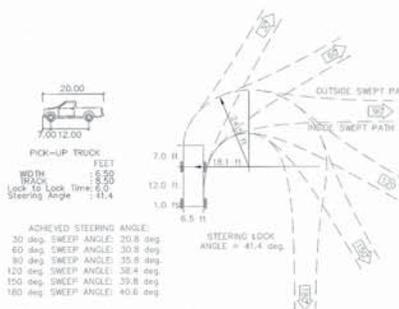
=> SIGHT DISTANCE, $S = 233.06$ FT. => USE 210 FT.

VEHICLE TRAVELING UPHILL TOWARD THE SITE:
 SIGHT DISTANCE, $S = (1.47 \times V^3) \div \frac{300(g \pm 0)}{32.2}$

1. PERCEPTION TIME = 2.5 SEC
 2. VEHICLE DESIGN SPEED = 30 MPH
 3. DECELERATION RATE = 11.2 FT/SEC²
 4. ACCELERATION OF GRAVITY = 32.2 FT/SEC²
 5. ROAD SLOPE IN DECIMAL (POSITIVE IF THE ROADWAY IS UPHILL) = + 0.073

SIGHT DISTANCE, $S = (1.47 \times 25 \times 30) \div \frac{30(11.2 \pm 0.073)}{32.2}$

=> SIGHT DISTANCE, $S = 181.6$ FT. => USE 180 FT.



TRUCK RADIUS PLAN
 SCALE: 1" = 30'

LEGEND

- EXISTING 2' CENTERLINE
- EXISTING 10' CENTERLINE
- EXISTING WATERING
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER LINE
- EXISTING SLOPE INDICATION
- EXISTING STREAMEL
- EXISTING CHAIN LINK FENCE
- EXISTING UNDERGROUND WIRE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING LIGHTING LINE
- EXISTING WETLANDS
- EXISTING SIGN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING WATER POLE
- EXISTING GAS VALVE
- PROPOSED GATE VALVE
- PROPOSED WATER SERVICE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED CANTONMENT
- PROPOSED ROOF DRAIN
- PROPOSED STORM DRAIN
- PROPOSED SLOPE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED RAIN GARDEN PROTECTION
- LIMIT OF DISTURBANCE

4	02-28-22	PER PLANNING BOARD 2-19-22
3	02-07-22	PER 2-3-22 CCB MEETING
2	01-28-22	PER FEB MTS 1-13-22, PER FEB 8 FEB SUBMISSION
1	11-15-21	PER FEB MTS 9-22-21
REVISION	DATE	DESCRIPTION

AN&Z
ATZL, NASHER & ZIGLER P.C.
 ENGINEERS - SURVEYORS - PLANNERS
 632 North Main Street
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 Fax: (845) 634-5543
 E-mail: info@nazzy.com
 Web: www.ANZNY.com

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

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: **TURNING RADIUS
 MANEUVERABILITY PLAN**

DRAWN BY: JSA	DESIGNED BY: JSA
DATE: NOVEMBER 13, 2021	SCALE: 1" = 30' FT
PROJECT NO: 4870	DRAWING NO: 8

The seal of the State of New York is shown in the upper right corner of this drawing. The seal of the State of New York is shown in the upper right corner of this drawing. The seal of the State of New York is shown in the upper right corner of this drawing.

RYAN A. NASHER, P.E.
 N.Y.S. P.E. LIC. NO. 69066

JOHN R. ATZL
 N.Y.S. M.E. LIC. NO. 60228



ATZL, NASHER & ZIGLER P.C.

ENGINEERS - SURVEYORS - PLANNERS

Web: www.anzny.com

March 2, 2022

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541
Attn: Mr. Craig Paepre, Chairman

Re: SUEZ Water NY, Inc. – London Bridge Wells 1 & 2 and Geymer Wells 1 & 2

Dear Chairman Paepre and honorable Board Members,

The Zoning Board of Appeals granted the required variances for the two above referenced projects on February 24, 2022. These sites are also expecting wetland permits from the Environmental Conservation Board (ECB) on March 17, 2022.

Updated site plans noting the approved variances have been submitted to the Planning Board. All comments from the Town Planner regarding these projects have been addressed. Engineering comments for these projects are being addressed by our office and the Applicant in coordination with the Town Engineer.

We respectfully request you to schedule a public hearing for these two projects at the next available Planning Board meeting. We thank you for your time and consideration.

Regards,

A handwritten signature in blue ink, appearing to read 'Ramya Ramanathan', is written over a horizontal line.

Ramya Ramanathan, AICP
Planning Analyst

CC:

Ms. Rose Trombetta, Town of Carmel
Mr. Steven R. Garabed, P.E., SUEZ
Mr. John B. Kirkpatrick, Kirkpatrick Law LLC
Ms. Sophia Liskovich, P.E., Gannett Fleming
Mr. Thomas Hercel, J. Fletcher Creamer & Son, Inc.



VICINITY MAP
SCALE: 1"=300'

OWNERS WITHIN 500 FEET:

TOWN OF CARMEL TAX MAP	OWNER	ADDRESS
53.19-1-12	PUTNAM COUNTY	40 GLENEDA AVENUE CARMEL, NY 10512
53.19-1-13	RYAN & PATRICIA BIDDLE	21 BROOK STREET MAHOPAC, NY 10541
53.19-1-14	JAMES SULLIVAN	55 BROOK STREET MAHOPAC, NY 10541
53.19-1-15	ANDREW & MARION TURKID	59 BROOK STREET MAHOPAC, NY 10541
53.19-1-16	CHRISTOPHER & WYANN L. HOLLOWAY	63 BROOK STREET MAHOPAC, NY 10541
53.19-1-17	NICHOLAS P. DIAMPOULI & CARA A. STRIPE	67 BROOK STREET MAHOPAC, NY 10541
53.19-1-23	GERARD T. SHEVENS	419 WOODLAND DRIVE MAHOPAC, NY 10541
53.19-1-24	MICHAEL, ROSEMARIE & MARK FANELLI	64 BROOK STREET MAHOPAC, NY 10541
53.19-1-25	CHARLES & DONNA BOREAN	56 BROOK STREET MAHOPAC, NY 10541
53.19-1-26	DIETMAR H. & DIANE HUMMEL	50 BROOK STREET MAHOPAC, NY 10541
53.19-1-27	JOHN & KATHARINE SCALA	415 WOODLAND DRIVE MAHOPAC, NY 10541
53.19-1-33	JANE M. & SCOTT A. IMBRO	13 SOMERSET ROAD MAHOPAC, NY 10541
53.19-1-54	IAN & NANCY J. WILSON	8 SOMERSET ROAD MAHOPAC, NY 10541
64.7-1-6	JOHN R. & DONNA M. CAPELLI	16 BROOK STREET MAHOPAC, NY 10541
64.7-1-7	GUY & LYDIA A. CARGANO	29 BROOK STREET MAHOPAC, NY 10541
64.7-1-8	GUY & LYDIA A. CARGANO	39 BROOK STREET MAHOPAC, NY 10541
64.7-1-9	GUY & LYDIA A. CARGANO	59 BROOK STREET MAHOPAC, NY 10541
64.7-1-11	PUTNAM COUNTY	40 GLENEDA AVENUE CARMEL, NY 10512
64.7-1-12	CAVIA, JC, LLC C/O JOSEPH ZANZANO	3 WAYNE COURT MOSELEY, NY 10562
64.7-1-13	MARYANNE HARRIS	30 BROOK STREET MAHOPAC, NY 10541
64.7-1-14	JESSICA STOCK	112 MAURICE DRIVE MAHOPAC, NY 10541
64.7-1-16	JOHN R. & DONNA M. CAPELLI	16 BROOK STREET MAHOPAC, NY 10541
64.7-1-17	JESSICA STOCK	112 MAURICE DRIVE MAHOPAC, NY 10541
64.7-1-51	RICHARD & GERARDINE FINAN	17 RANDOR LANE MAHOPAC, NY 10541
64.7-1-52	SUSAN L. & NEIL S. BELLOFF	11 RANDOR LANE MAHOPAC, NY 10541

TAX MAP REFERENCE:
TOWN OF CARMEL TAX MAP SECTION 64.7, BLOCK 1, LOT 10

OWNER & APPLICANT:
SUEZ WATER NEW YORK, INC. 162 OLD MILL ROAD WEST NYACK, NY 10984

SITE ADDRESS:
59 BROOK AVENUE MAHOPAC, NY 10541

AREA:
70,132 SQFT. 1.610 ACRES

DATUM:
VERTICAL: NAD 1988
HORIZONTAL: NAD 1983, NEW YORK STATE PLANE COORDINATE SYSTEM, EAST ZONE

SUBDIVISION REFERENCES:
"MAP OF LONDON BRIDGE ACRES-SECTION 2" FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON NOVEMBER 3, 1954, AS MAP No. 550A.

"MAP OF BROOK AVENUE PORTION AS SHOWN ON MAP OF LONDON BRIDGE ACRES FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON MARCH 24, 1955, AS MAP No. 690.

REVISION	DATE	DESCRIPTION
4	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
3	02-08-22	PER 2-3-22 ECB MEETING
2	01-25-22	PER ECB & ZBA SUBMISSION
1	11-15-21	FOR PER MTS. 9-22-21

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
832 North Main Street
New City, New York 10956
Tel: (845) 634-4894
Fax: (845) 634-6543
E-mail: info@anzny.com
Web: www.anzny.com

PROJECT:
SUEZ WATER NEW YORK, INC.
LONDON BRIDGE WELL 1 & 2

TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

LOCATION MAP

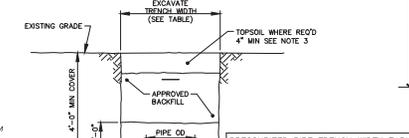
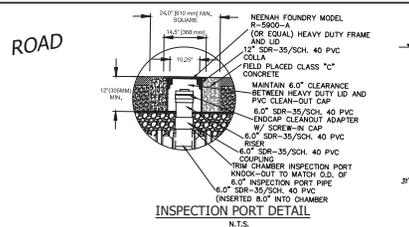
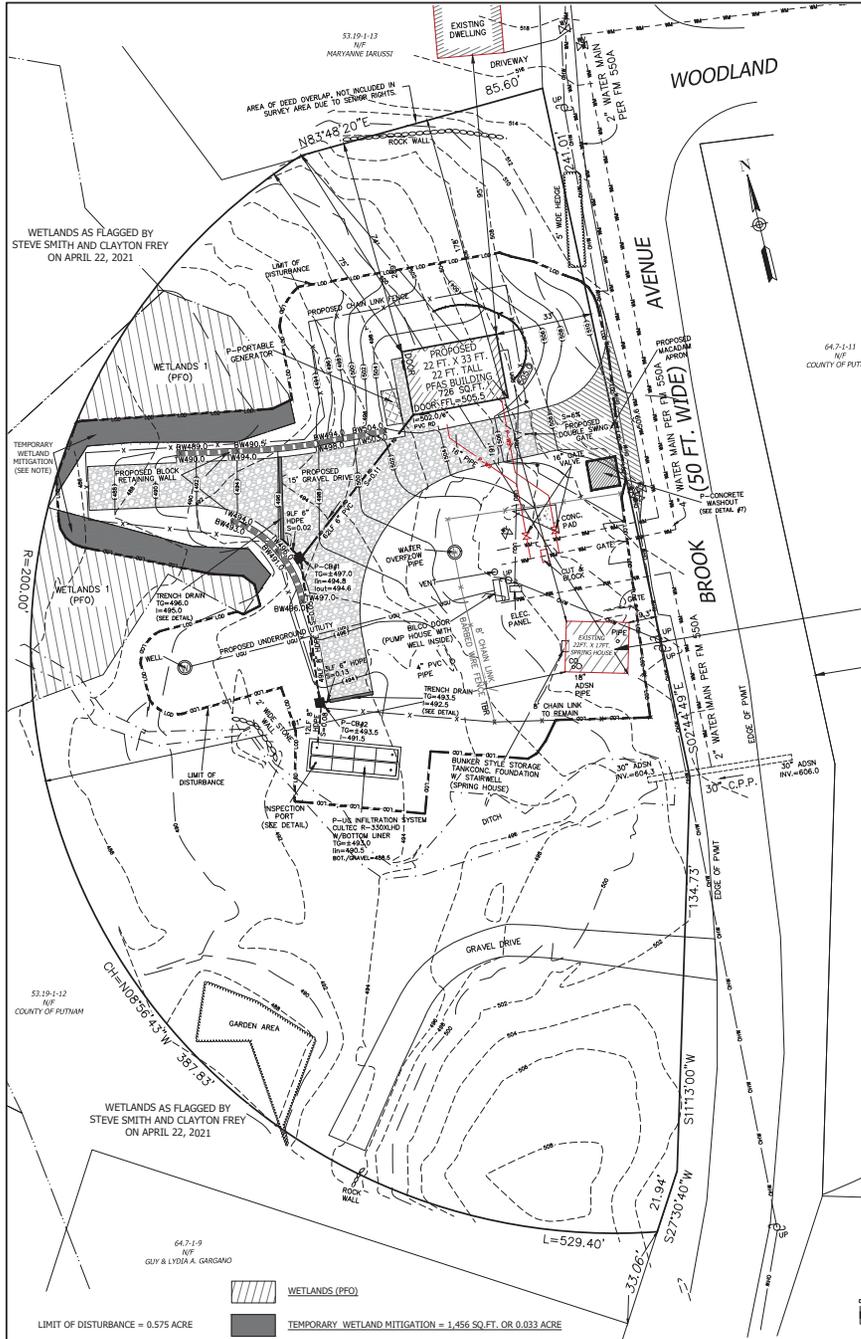
DRAWN BY: IS	CHECKED BY: JRA
DATE: JULY 20, 2021	SCALE: AS SHOWN
PROJECT NO.: 4872	DRAWING NO.: LM

THE EDUCATION LAW OF THE STATE OF NEW YORK PROVIDES ANY PERSON ATTEMPTING TO PREPARE OR TO SIGN ANY DRAWING OR FOR THE ACCOMPANYING PROFESSIONAL UNDER THE PROFESSIONAL ENGINEER, MECHANICAL ENGINEER, SURVEYOR, ARCHITECT, LAND SURVEYOR, OR PROFESSIONAL LANDSCAPE ARCHITECTURE ACT SHALL BE CONSIDERED TO BE VIOLATING THE EDUCATION LAW OF THE STATE OF NEW YORK UNLESS HE OR SHE IS A LICENSED PROFESSIONAL ENGINEER, MECHANICAL ENGINEER, SURVEYOR, ARCHITECT, LAND SURVEYOR, OR PROFESSIONAL LANDSCAPE ARCHITECTURE AS PROVIDED IN SECTION 2009-B OF THE EDUCATION LAW.

STATE OF NEW YORK
JULY 20 2021
N.Y.S. PUBLIC SEAL #9066

STATE OF NEW YORK
JULY 20 2021
N.Y.S. PUBLIC SEAL #9228

LOCATION MAP
SCALE: 1"=200'



PRESSURIZED PIPE TRENCH WIDTH TABLE

DIAMETER OF PIPE	MAX TRENCH WIDTH (OD OF PIPE AT BARREL PLUS)
3\"/>	

- TRENCH NOTES:**
- IF UNSUITABLE SUBSOIL IS ENCOUNTERED AT THE NORMAL TRENCH SUBGRADE, THE CONTRACTOR SHALL REMOVE IT TO THE DEPTH DIRECTED BY THE ENGINEER IN THE FIELD, AND BACKFILL W/ PIPE BEDDING MATERIAL IN 4\"/>

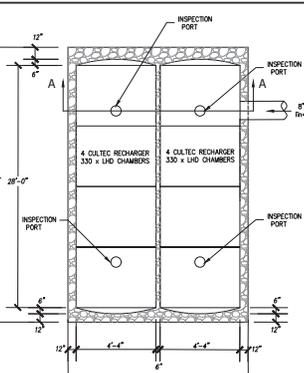
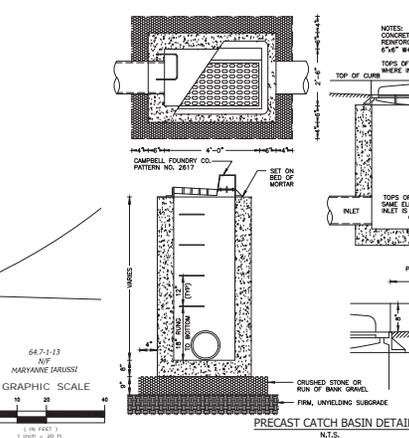
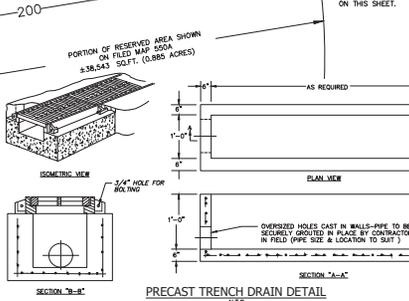
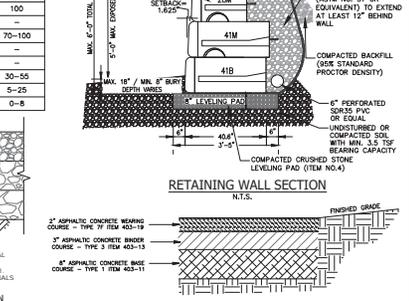
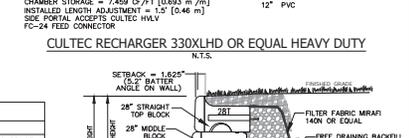
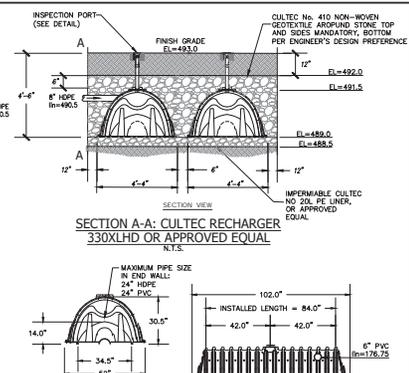
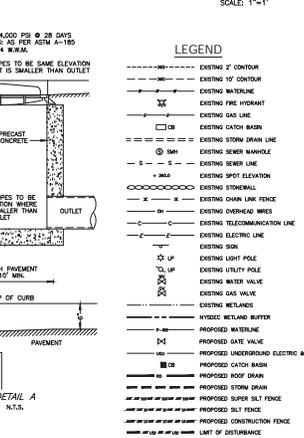
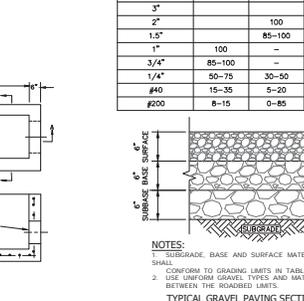


TABLE-1 PERCENT PASSING BY WEIGHT OF GRAVEL MATERIALS

SI-EV (U.S. SIEVE)	SURFACE	BASE	SUBBASE
3\"/>			

- NOTES:**
- SUBGRADE, BASE AND SURFACE MATERIAL SHALL CONFORM TO GRADING LIMITS IN TABLE-1.
 - USE UNIFORM GRAVEL TYPES AND MATERIALS BETWEEN THE ROADBED LIMITS.



ATZL NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS

832 North Main Street
New City, New York 10956
Tel: (845) 834-4894
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PROJECT: SUEZ WATER NEW YORK, INC. LONDON BRIDGE WELL 1 & 2

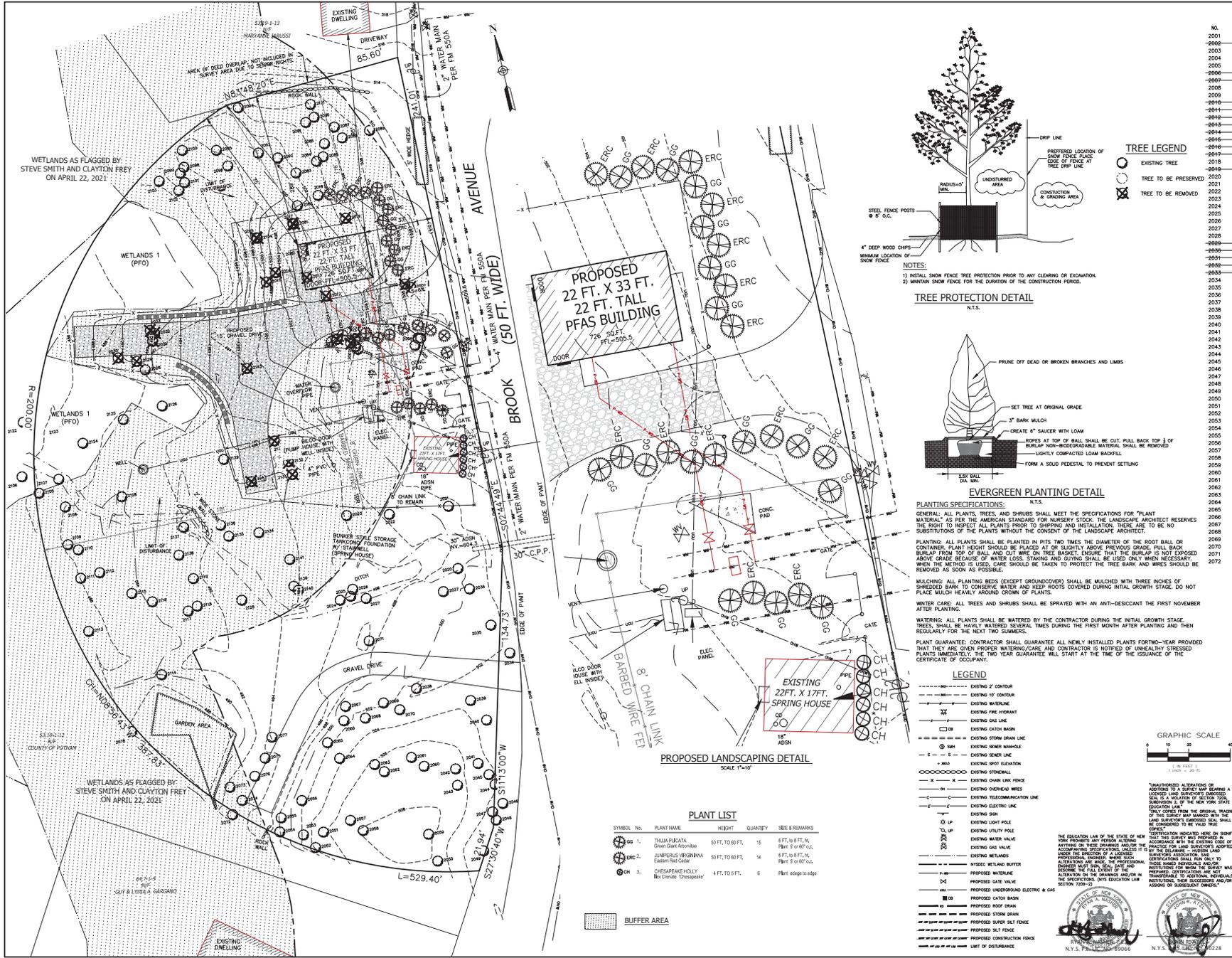
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

TITLE: GRADING PLAN & DETAILS

REVISION:

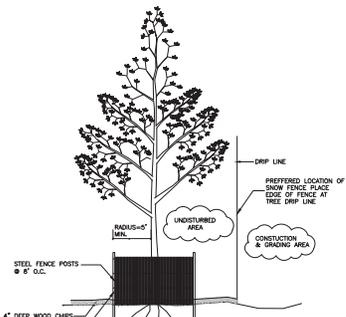
NO.	DATE	DESCRIPTION
4	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
3	02-08-22	PER 2-3-22 EGM MEETING
2	01-25-22	PER EGM & ZGM SUBMISSION
1	11-15-21	FOR PER MTS. 9-22-21

DRAWN BY: IS **CHECKED BY:** JRA
DATE: JULY 20, 2021 **SCALE:** 1" = 20'
PROJECT NO.: 4872 **DRAWING NO.:** 3



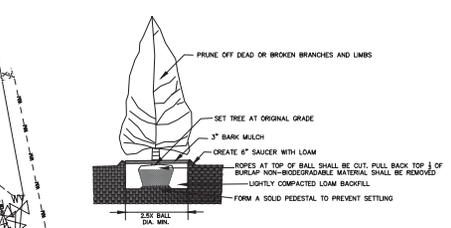
TREE LIST

NO.	SIZE	DESCRIPTION	CONDITION	NO.	SIZE	DESCRIPTION	CONDITION
2001	36"	TRIPLE MAPLE	GOOD	2073	15"	BIRCH	POOR
2002	10"	MAPLE	GOOD	2074	6"	BIRCH	GOOD
2003	11"	TWIN MAPLE	GOOD	2075	9"	TWIN BIRCH	GOOD
2004	6"	MAPLE	GOOD	2076	4"	BIRCH	GOOD
2005	19"	MAPLE	GOOD	2077	9"	BIRCH	GOOD
2006	10"	MAPLE	GOOD	2078	18"	TULIP	GOOD
2007	6"	MAPLE	GOOD	2079	14"	MAPLE	GOOD
2008	6"	MAPLE	GOOD	2080	6"	MAPLE	GOOD
2009	6"	MAPLE	GOOD	2081	6"	MAPLE	GOOD
2010	6"	MAPLE	GOOD	2082	6"	MAPLE	GOOD
2011	12"	MAPLE	GOOD	2083	6"	BIRCH	GOOD
2012	6"	MAPLE	GOOD	2084	6"	MAPLE	GOOD
2013	3"	ASH	GOOD	2085	6"	MAPLE	GOOD
2014	6"	MAPLE	GOOD	2086	7"	MAPLE	GOOD
2015	7"	ASH	GOOD	2087	6"	MAPLE	GOOD
2016	6"	MAPLE	GOOD	2088	10"	MAPLE	GOOD
2017	6"	OAK	GOOD	2089	12"	MAPLE	GOOD
2018	7"	ASH	GOOD	2090	10"	MAPLE	GOOD
2019	12"	MAPLE	GOOD	2091	12"	MAPLE	GOOD
2020	6"	ASH	POOR	2092	17"	BIRCH	GOOD
2021	12"	MAPLE	GOOD	2093	15"	BIRCH	GOOD
2022	13"	MAPLE	GOOD	2094	22"	HICKORY	GOOD
2023	6"	MAPLE	POOR	2095	9"	MAPLE	GOOD
2024	11"	TWIN MAPLE	GOOD	2096	8"	MAPLE	GOOD
2025	9"	TULIP	GOOD	2097	6"	MAPLE	GOOD
2026	14"	MAPLE	GOOD	2098	9"	MAPLE	GOOD
2027	10"	MAPLE	GOOD	2099	10"	MAPLE	GOOD
2028	31"	MAPLE	POOR	2100	8"	MAPLE	GOOD
2029	24"	MAPLE	POOR	2101	6"	MAPLE	GOOD
2030	6"	MAPLE	POOR	2102	7"	HICKORY	GOOD
2031	6"	MAPLE	POOR	2103	6"	MAPLE	GOOD
2032	6"	MAPLE	POOR	2104	6"	MAPLE	GOOD
2033	6"	MAPLE	POOR	2105	12"	MAPLE	GOOD
2034	28"	OAK	GOOD	2106	16"	MAPLE	GOOD
2035	12"	HICKORY	GOOD	2107	6"	MAPLE	GOOD
2036	22"	MAPLE	POOR	2108	16"	TULIP	POOR
2037	10"	BIRCH	POOR	2109	15"	TWINMAPLE	GOOD
2038	20"	BIRCH	POOR	2110	23"	MAPLE	GOOD
2039	10"	BIRCH	GOOD	2111	12"	MAPLE	GOOD
2040	6"	OAK	GOOD	2112	14"	MAPLE	GOOD
2041	20"	TULIP	GOOD	2113	14"	MAPLE	GOOD
2042	21"	TULIP	GOOD	2114	17"	MAPLE	GOOD
2043	9"	BIRCH	GOOD	2115	24"	MAPLE	GOOD
2044	18"	OAK	GOOD	2116	12"	TREEMAPLE	GOOD
2045	6"	OAK	GOOD	2117	11"	MAPLE	GOOD
2046	11"	TULIP	GOOD	2118	13"	TWIN MAPLE	POOR
2047	13"	TWIN OAK	GOOD	2119	10"	MAPLE	GOOD
2048	23"	TULIP	GOOD	2120	24"	GUADE MAPLE	GOOD
2049	11"	TWIN OAK	GOOD	2121	10"	MAPLE	GOOD
2050	10"	OAK	GOOD	2122	16"	MAPLE	GOOD
2051	23"	MAPLE	GOOD	2123	9"	MAPLE	POOR
2052	22"	OAK	GOOD	2124	10"	MAPLE	POOR
2053	6"	BIRCH	GOOD	2125	24"	MAPLE	GOOD
2054	6"	BIRCH	GOOD	2126	15"	MAPLE	GOOD
2055	6"	BIRCH	GOOD	2127	25"	MAPLE	GOOD
2056	18"	BIRCH	GOOD	2128	20"	MAPLE	POOR
2057	7"	BIRCH	GOOD	2129	17"	MAPLE	GOOD
2058	12"	HICKORY	GOOD	2130	16"	MAPLE	POOR
2059	12"	OAK	GOOD	2131	21"	MAPLE	POOR
2060	14"	MAPLE	GOOD	2132	20"	MAPLE	POOR
2061	6"	BIRCH	GOOD	2133	10"	TWIN MAPLE	POOR
2062	24"	OAK	GOOD	2134	20"	MAPLE	POOR
2063	13"	BIRCH	GOOD	2135	10"	TWIN MAPLE	POOR
2064	8"	BIRCH	GOOD	2136	7"	MAPLE	GOOD
2065	10"	BIRCH	GOOD	2137	10"	MAPLE	POOR
2066	13"	OAK	GOOD	2138	19"	MAPLE	GOOD
2067	8"	BIRCH	GOOD	2139	10"	MAPLE	GOOD
2068	8"	OAK	GOOD	2140	13"	MAPLE	GOOD
2069	14"	BIRCH	GOOD	2141	15"	TWIN MAPLE	GOOD
2070	13"	MAPLE	GOOD	2142	10"	MAPLE	GOOD
2071	19"	TWIN BIRCH	POOR	2143	21"	MAPLE	GOOD
2072	15"	BIRCH	POOR				



NOTES:
 1) METAL SNOW FENCE TREE PROTECTION FOR ANY CLEANING OR EDUCATION.
 2) MAINTAIN SNOW FENCE THROUGHOUT THE CONSTRUCTION PERIOD.

TREE PROTECTION DETAIL
N.T.S.



EVERGREEN PLANTING DETAIL
N.T.S.

PLANTING SPECIFICATIONS:
 GENERAL: ALL PLANTS, TREES, AND SHRUBS SHALL MEET THE SPECIFICATIONS FOR "PLANT MATERIAL" AS PER THE AMERICAN STANDARD FOR NURSERY STOCK. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT ALL PLANTS PRIOR TO SHIPPING AND INSTALLATION. THERE ARE TO BE NO SUBSTITUTIONS OF THE PLANTS WITHOUT THE CONSENT OF THE LANDSCAPE ARCHITECT.

PLANTING: ALL PLANTS SHALL BE PLANTED IN PITS TWO TIMES THE DIAMETER OF THE ROOT BALL OR CONTAINER. PLANT HEIGHT SHOULD BE PLACED AT OR SLIGHTLY ABOVE PREVIOUS GRADE. PULL BACK BURLAP FROM TOP OF BALL AND CUT WIRE ON TREE BASKET. ENSURE THAT THE BURLAP IS NOT EXPOSED ABOVE GRADE BECAUSE OF WATER LOSS. STAKING AND GUYING SHALL BE USED ONLY WHEN NECESSARY. WHEN THE METHOD IS USED, CARE SHOULD BE TAKEN TO PROTECT THE TREE BARK AND WIRES SHOULD BE REMOVED AS SOON AS POSSIBLE.

MULCHING: ALL PLANTING BEDS (EXCEPT GROUNDCOVER) SHALL BE MULCHED WITH THREE INCHES OF SHREDED BARK TO CONSERVE WATER AND KEEP ROOTS COVERED DURING INITIAL GROWTH STAGE. TREES SHALL BE HEAVILY WATERED SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING.

WINTER CARE: ALL TREES AND SHRUBS SHALL BE SPRAYED WITH AN ANTI-DESCICANT THE FIRST WINTER AFTER PLANTING.

WATERING: ALL TREES SHALL BE WATERED BY THE CONTRACTOR DURING THE INITIAL GROWTH STAGE. TREES SHALL BE GIVEN PROPER WATERING/CARE AND CONTRACTOR IS NOTIFIED OF UNHEALTHY STRESSED PLANTS IMMEDIATELY. THE TWO YEAR GUARANTEE WILL START AT THE TIME OF THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

PLANT GUARANTEE: CONTRACTOR SHALL GUARANTEE ALL NEWLY INSTALLED PLANTS FORTY-TWO MONTHS PROVIDED THAT THEY ARE GIVEN PROPER WATERING/CARE AND CONTRACTOR IS NOTIFIED OF UNHEALTHY STRESSED PLANTS IMMEDIATELY. THE TWO YEAR GUARANTEE WILL START AT THE TIME OF THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.



LEGEND

PLANT LIST

SYMBOL	NO.	PLANT NAME	HEIGHT	QUANTITY	SIZE & REMARKS
ERC	1	TRIALA-PICATA Green Giant Arborvitae	50 FT. TO 60 FT.	15	6 FT. TO 8 FT. IN. FILE 9 OR 80" IN.
ERC	2	ZUNIPERUS URBINIANA Eastern Red Cedar	50 FT. TO 60 FT.	14	8 FT. TO 8 FT. IN. FILE 9 OR 80" IN.
CH	3	CHEAPAKE HOLLY Ilex Coriata 'Chippahalee'	4 FT. TO 5 FT.	6	6 FT. SLOPE TO SLOPE

GRAPHIC SCALE
 0 10 20 30 40
 IN FEET
 1" = 20' FT.

TOWN OF CARMEL
 N.Y.S. PUBLIC LANDS § 90-66
 N.Y.S. § 245-MAGNY § 2228

REVISION	DATE	DESCRIPTION
4	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
3	02-08-22	PER 2-3-22 ECB MEETING
2	01-25-22	PER ECB & ZBA SUBMISSION
1	11-15-21	FOR FR MTS. 9-22-21

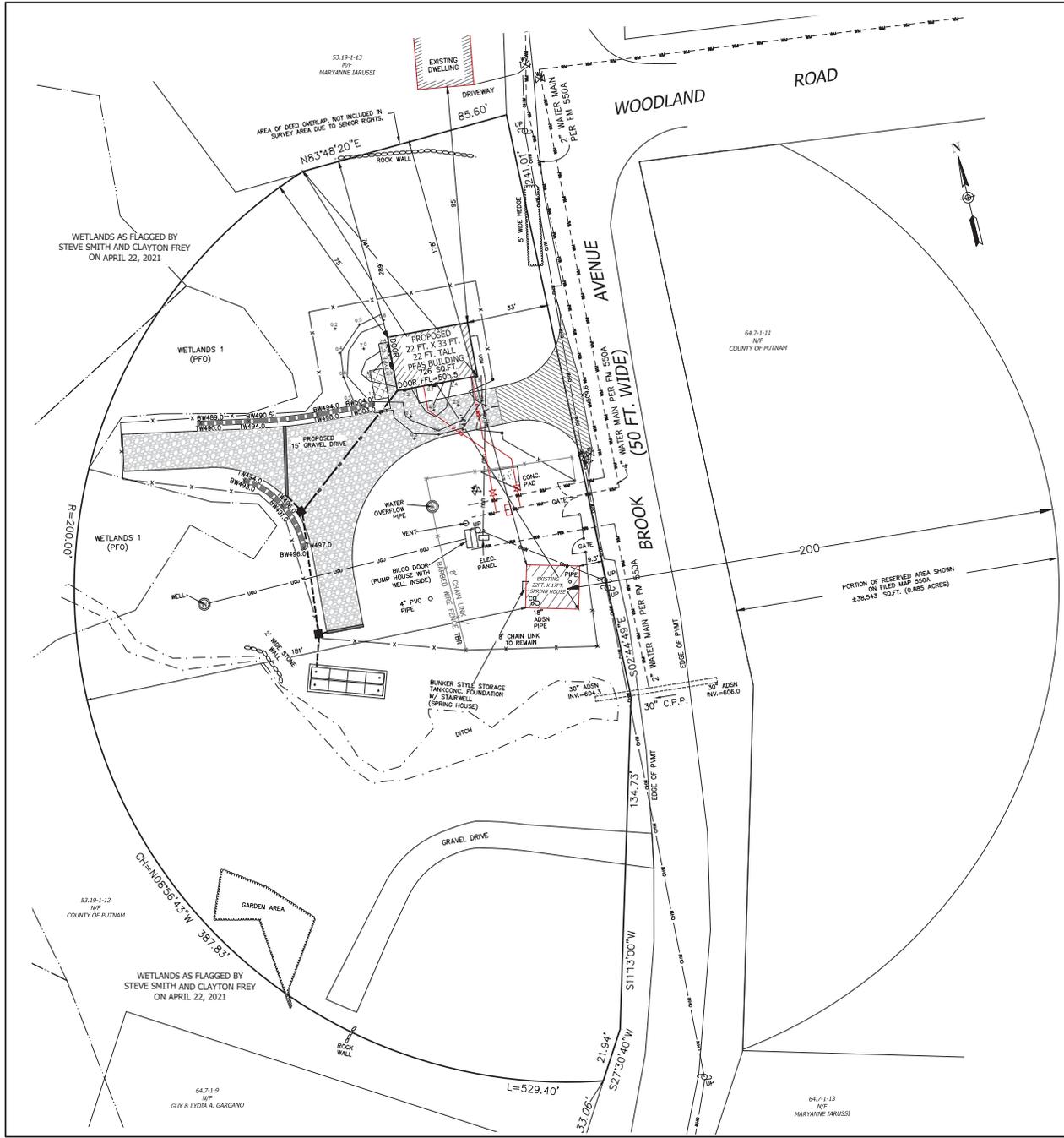
ATZL NASHER & ZIGLER P.C.
 ENGINEERS-SURVEYORS-PLANNERS
 832 North Main Street
 New City, New York 10956
 Tel: (845) 634-4894
 Fax: (845) 634-5543
 E-mail: info@anzny.com
 Web: www.ANZNY.com

PROJECT:
 SUEZ WATER NEW YORK, INC.
 LONDON BRIDGE WELL 1 & 2

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TREE & LANDSCAPE PLAN

DATE:	DRAWN BY:	CHECKED BY:
JULY 20, 2021	IS	JRA
SCALE: 1" IN. = 20' FT.	PROJECT NO.:	DRAWING NO.:
	4872	5



RAB CONTACT INFORMATION:
 DAMIN SALES (732) 965-8866
 RAB LIGHTING (201) 931-8062



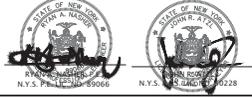
12, 18 AND 24 WATT SLIM WALL MOUNT PACKS ARE ULTRA EFFICIENT AND
 DESIGN APPROPRIATE LIGHT DISTRIBUTION WITH A COMPACT LOW-PROFILE
 DESIGN THAT'S SUPER EASY TO INSTALL AS A COMPONENT OF UPLIGHT.

COLOR: BRONZE HEIGHT: 4.5 IN.
SLIM12Y WALL MOUNT DETAIL
 N.T.S.

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	BUG Rating
W	2	SLIM12Y	SINGLE	N.A.	1.000	Wall Mount	B1-LU-GD



UNLICENSED ALTERATION OF
 ADDITION TO A SURVEY MAP BEARING
 A LICENSED LAND SURVEYOR'S SIGNATURE
 AND SEAL IN WITNESS WHEREOF, THE
 PROFESSIONAL ENGINEER HAS HEREBY
 CERTIFIED THAT HE HAS EXAMINED THE
 DRAWING AND FINDS IT TO BE IN
 ACCORDANCE WITH THE REQUIREMENTS
 OF THE EDUCATION LAW OF THE STATE
 OF NEW YORK AND THE REGULATIONS
 OF THE BOARD OF SURVEYING AND
 MAPPING ENGINEERS.



LEGEND

---	EXISTING 2' CONTOUR	
---	EXISTING 10' CONTOUR	
---	EXISTING WATERLINE	
---	EXISTING FIRE HYDRANT	
---	EXISTING GAS LINE	
---	EXISTING CATCH BASIN	
---	EXISTING STORM DRAIN LINE	
---	EXISTING SEWER MANHOLE	
---	EXISTING SEWER LINE	
---	EXISTING SPOT ELEVATION	
---	EXISTING STORMWALL	
---	EXISTING DRAIN LINE FENCE	
---	EXISTING SEWER LINE	
---	EXISTING OVERHEAD WIRES	
---	EXISTING TELECOMMUNICATION LINE	
---	EXISTING ELECTRIC LINE	
---	EXISTING SIGN	
---	EXISTING LIGHT POLE	
---	EXISTING UTILITY POLE	
---	EXISTING WATER VALVE	
---	EXISTING GAS VALVE	
---	EXISTING WETLANDS	
---	WYSE: WETLAND BUFFER	
---	---	PROPOSED WATERLINE
---	---	PROPOSED GAS VALVE
---	---	PROPOSED UNDERGROUND ELECTRIC & GAS
---	---	PROPOSED CATCH BASIN
---	---	PROPOSED ROOF DRAIN
---	---	PROPOSED STORM DRAIN
---	---	PROPOSED SUPER SALT FENCE
---	---	PROPOSED SALT FENCE
---	---	PROPOSED CONSTRUCTION FENCE
---	---	LIMIT OF DISTURBANCE

REVISION	DATE	DESCRIPTION
4	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
3	02-08-22	PER 2-3-22 EOB MEETING
2	01-25-22	PER EOB & ZBA SUBMISSION
1	11-15-21	PER PUB ATG. 9-22-21

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PROJECT: **SUEZ WATER NEW YORK, INC.
 LONDON BRIDGE WELL 1 & 2**

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: **LIGHTING PLAN**

DRAWN BY: IS	CHECKED BY: JRA
DATE: JULY 20, 2021	SCALE: 1 IN. = 20 FT.
PROJECT NO: 4872	DRAWING NO: 6



ATZL, NASHER & ZIGLER P.C.

ENGINEERS - SURVEYORS - PLANNERS

Web: www.anzny.com

March 2, 2022

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541
Attn: Mr. Craig Paepre, Chairman

Re: SUEZ Water NY, Inc. – London Bridge Wells 1 & 2 and Geymer Wells 1 & 2

Dear Chairman Paepre and honorable Board Members,

The Zoning Board of Appeals granted the required variances for the two above referenced projects on February 24, 2022. These sites are also expecting wetland permits from the Environmental Conservation Board (ECB) on March 17, 2022.

Updated site plans noting the approved variances have been submitted to the Planning Board. All comments from the Town Planner regarding these projects have been addressed. Engineering comments for these projects are being addressed by our office and the Applicant in coordination with the Town Engineer.

We respectfully request you to schedule a public hearing for these two projects at the next available Planning Board meeting. We thank you for your time and consideration.

Regards,

A handwritten signature in blue ink, appearing to read 'Ramya Ramanathan'.

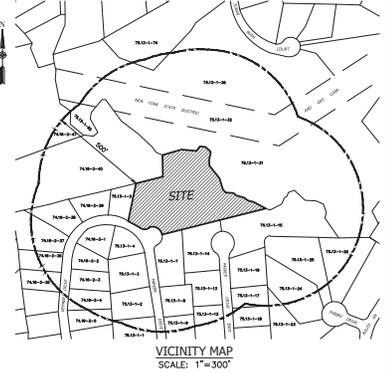
Ramya Ramanathan, AICP
Planning Analyst

CC:

Ms. Rose Trombetta, Town of Carmel
Mr. Steven R. Garabed, P.E., SUEZ
Mr. John B. Kirkpatrick, Kirkpatrick Law LLC
Ms. Sophia Liskovich, P.E., Gannett Fleming
Mr. Thomas Hercel, J. Fletcher Creamer & Son, Inc.



LOCATION MAP
SCALE: 1"=300'



VICINITY MAP
SCALE: 1"=300'

OWNERS WITHIN 500 FEET:

- | | |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 74.16-2-1 KATHLEEN A MCGRNK & BENJAMIN P SHWARTZ 81 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-8 ANGEL MONTANEZ & JACQUELINE MEDRA 36 PARKER DRIVE MAHOPAC, NY 10541 |
| 74.16-2-2 ROSEMARIE STARAK 95 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-9 ANTHONY J PIZZUTO & DIANA RICHTER 48 PARKER DRIVE MAHOPAC, NY 10541 |
| 74.16-2-3 WILLIAM & DANELLE DADDIO 101 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-12 MICHAEL J & SANDRA PEACE 9 PARKER DRIVE MAHOPAC, NY 10541 |
| 74.16-2-4 BRANDON FAVOCHA & DANELLE SEP 107 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-13 SILEN NAZARIO 17 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-5 STEPHEN & MARY B BRUNETTI 117 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-14 GEORGE & JANET MARION 25 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-35 DAVID & ANNE MARIE CATANIA 104 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-15 RICHARD K FALGONER 28 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-36 JEFFREY & JACQUELINE OZA 98 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-16 SUSAN E ARVAY 22 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-37 MICHAEL A DERARO & STEPHANIE SORIO 94 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-17 JOSE & KIMBERLY POLANCO 18 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-38 EDGAR S & DIANE D MARRAFFINO 88 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-18 PAUL SYSAK 12 PARKER DRIVE EAST MAHOPAC, NY 10541 |
| 74.16-2-39 RONALD W & MARIE S POLLACK PO BOX 3 MAHOPAC FALLS, NY 10542 | 75.13-1-23 SEF & ALENA SKOSLJEVIC 3 FABRI COURT MAHOPAC, NY 10541 |
| 74.16-2-40 ROSARIO JR. & KATHERINE LADUCA 66 BROOKDALE ROAD MAHOPAC, NY 10541 | 75.13-1-24 MICHAEL C & JENNIFER A PONTILLO 7 FABRI COURT MAHOPAC, NY 10541 |
| 74.16-2-47 ROSARIO JR. & KATHERINE LADUCA 66 BROOKDALE ROAD MAHOPAC, NY 10541 | 75.13-1-25 CARMELA GELUANO 7 FABRI COURT MAHOPAC, NY 10541 |
| 75.13-1-1 ARTHUR & MARIE C BENNETT 49 PARKER DRIVE MAHOPAC, NY 10541 | 75.13-1-26 JOANNE COLANGELO 2019 TRUST 4 FABRI COURT MAHOPAC, NY 10541 |
| 75.13-1-2 VINCENT BELLA MORRA 35 PARKER DRIVE MAHOPAC, NY 10541 | 75.13-1-31 LEON HANSEN 3220 BRINGHAM STREET, APT 3L BROOKLYN, NY 11229 |
| 75.13-1-3 MICHAEL J & JANENE MOORE 63 PARKER DRIVE MAHOPAC, NY 10541 | 75.13-1-32 NYS ELEC & GAS CORP 1 CITY CENTER PL 5 PORTLAND, ME 04101 |
| 75.13-1-4 GIUSEPPE & VIOLETA MAZZELLA 73 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-36 NICOLE STERN 888 ROUTE 6 MAHOPAC, NY 10541 |
| 75.13-1-5 ROBERT F SPATFORO 78 SEMER DRIVE MAHOPAC, NY 10541 | 75.13-1-74 NICOLE STERN 888 ROUTE 6 MAHOPAC, NY 10541 |
| 75.13-1-7 COLIN B & JOSEPHINE BETHAM 66 PARKER DRIVE MAHOPAC, NY 10541 | 75.13-1-82 ROSARIO LADUCA 66 BROOKDALE ROAD MAHOPAC, NY 10541 |

TAX MAP REFERENCE:

TOWN OF CARMEL TAX MAP SECTION 75.13, BLOCK 1, LOT 6

OWNER:

SUEZ WATER NEW YORK, INC. 162 OLD MILL ROAD WEST NYACK, NY 10994

SITE ADDRESS:

70 SEMER DRIVE MAHOPAC, NY 10541

AREA:

173,444 SQ. FT. 3.982 ACRES

DATUM:

NAD 1983 NAVD 1988

REFERENCE:

- FILED MAP NO. 850 ENTITLED "MAP OF SECTION "A" PARKER MANOR, TOWN OF CARMEL, PUTNAM COUNTY, N.Y.," FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON JANUARY 15, 1958.
- FILED MAP NO. 1033-B ENTITLED "SUBDIVISION MAP OF FOREST PARK SECTION "C" TOWN OF CARMEL, PUTNAM COUNTY, N.Y.," FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON OCTOBER 26, 1963.
- NIP FLOOD INSURANCE RATE MAP NUMBER 36078020276 AND NATIONAL FLOOD HAZARD LAYER (NFHL) DIGITAL DATA, EFFECTIVE MARCH 4, 2013.

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL TRACKING OF THE SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID INSTRUMENTS.

CERTIFICATION INDICATED HERE ON SHOWS THAT THIS SURVEY WAS PREPARED BY ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE GOVERNOR OF THE STATE OF NEW YORK. THE PROFESSIONAL ASSOCIATION DOES NOT GUARANTEE THE ACCURACY OF THE SURVEY. CERTIFICATIONS SHALL RUN ONLY TO THOSE HARBOR MASTERS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, NEW SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS.



REVISION	DATE	DESCRIPTION
6	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
5	02-09-22	PER 2-3-22 ECR MEETING
4	01-25-22	PER ECB & ZBA SUBMISSION
3	11-15-21	PER PB MTC. 9-22-21
2	10-04-21	REV. PROP. ELEV. & GRADING
1	8-23-21	PER TOWN ENGINEER COMMENTS REC'D 8-2-21

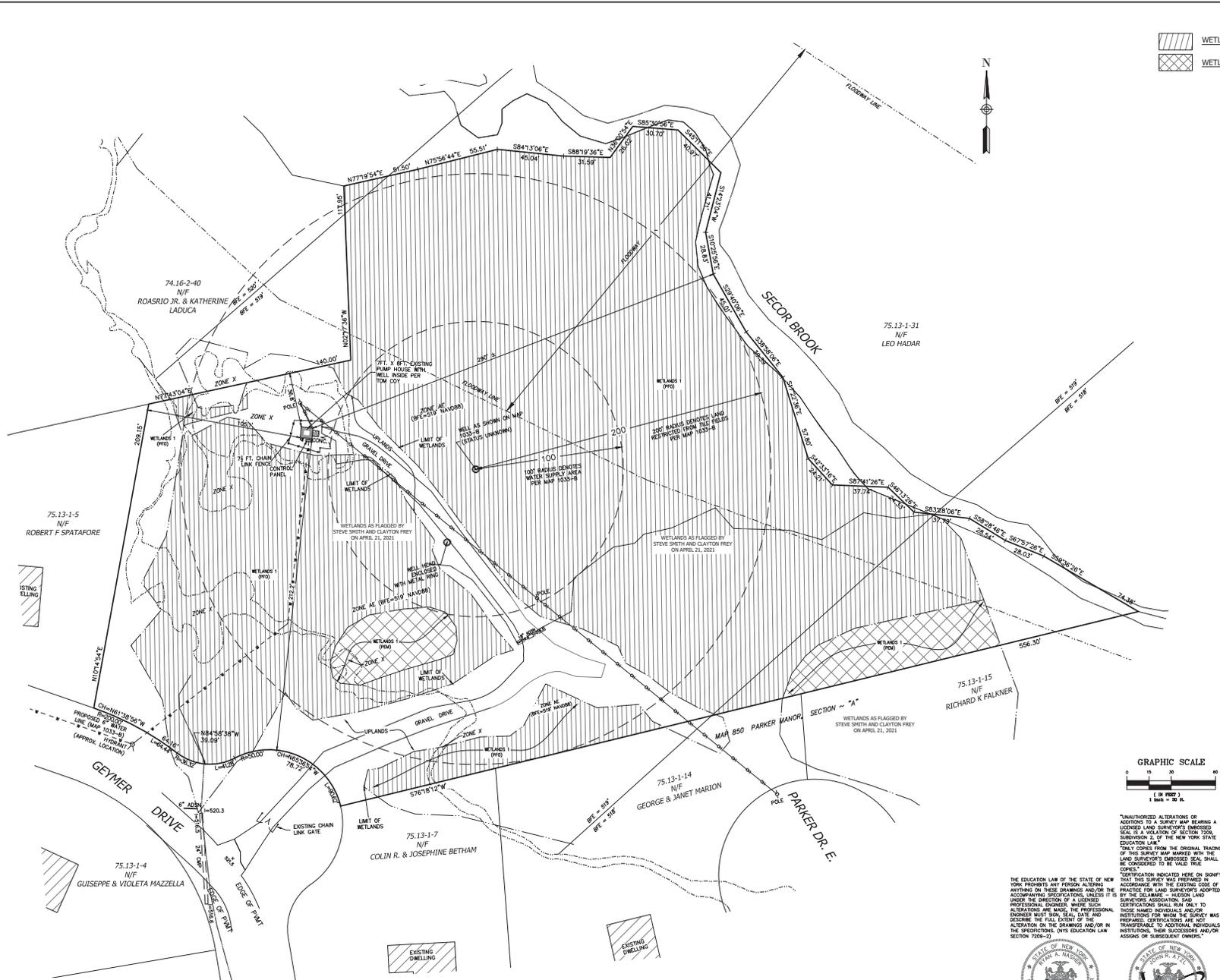
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Web: www.ANZNY.com

PROJECT: **SUEZ WATER NEW YORK, INC. GEYMER WELL 1 & 2**

TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

TITLE: **LOCATION MAP**

DRAWN BY: IS	CHECKED BY: JRA
DATE: JULY 12, 2021	SCALE: AS SHOWN
PROJECT NO: 4873	DRAWING NO: LM



LEGEND

	WETLANDS (PFO)		EXISTING 2' CONTOUR
	WETLANDS (PEM)		EXISTING 10' CONTOUR
			EXISTING WATERLINE
			EXISTING FIRE HYDRANT
			EXISTING GAS LINE
			EXISTING CATCH BASIN
			EXISTING STORM DRAIN LINE
			EXISTING SEWER MANHOLE
			EXISTING SEWER LINE
			EXISTING SPOT ELEVATION
			EXISTING STONE WALL
			EXISTING CHAIN LINK FENCE
			EXISTING CONCRETE WALL
			EXISTING TELECOMMUNICATION LINE
			EXISTING ELECTRIC LINE
			EXISTING SIGN
			EXISTING LIGHT POLE
			EXISTING UTILITY POLE
			EXISTING WATER VALVE
			EXISTING GAS VALVE

TAX MAP REFERENCE:
TOWN OF CARMEL TAX MAP SECTION 75.13, BLOCK 1, LOT 8

ADDRESS:
70 GEMER DRIVE MAHOOPAC, NY 10541

AREA:
173,444 SQ. FT. 3.9817 ACRES

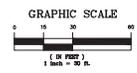
DATUM:
VERTICAL: NAVD 1988
HORIZONTAL: NAD 1983, NEW YORK STATE PLANE COORDINATE SYSTEM, EAST ZONE

FLOOD HAZARD:
PORTIONS OF THE PROPERTY LIES WITHIN "AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATIONS DETERMINED", (ZONE A), AS DESIGNATED BY FEMA, PER FIRM MAP NO. 360700020E, WITH AN EFFECTIVE DATE OF MARCH 4, 2013.

NOTE:
UTILITY LOCATIONS ARE BASED ON ABOVE-GROUND OBSERVATIONS & UTILITY MARKETS AT TIME OF FIELD SURVEY. THE TYPE AND LOCATION OF UTILITIES ARE NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE.

SUBDIVISION REFERENCES:
"MAP OF SECTION 'A' PARKER MANOR" FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON JANUARY 15, 1958, AS MAP NO. 850.
"SUBDIVISION MAP OF FOREST PARK SECTION 'C'" FILED IN THE PUTNAM COUNTY CLERK'S OFFICE ON OCTOBER 26, 1987 AS MAP NO. 1033-B.

REVISION	DATE	DESCRIPTION
6	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
5	02-09-22	PER 2-3-22 ECR MEETING
4	01-25-22	PER ECR & ZBA SUBMISSION
3	11-15-21	PER FRM MTC, 8-22-21
2	10-04-21	REV. PROP., ELEV., & LOADING
1	8-23-21	PER TOWN ENGINEER COMMENTS REC'D 8-2-21



"UNAUTHORIZED ALTERATIONS OF ANY KIND TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW.
"TAKING COPIES FROM THE ORIGINAL TRACKING OF THE SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRACES."
CERTIFICATION INDICATED HERE ON SHOWS THAT THIS SURVEY WAS PREPARED BY ACCORDANCE WITH THE EXISTING CODES OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE GOVERNORS OF THE STATE OF NEW YORK. IF ANY CHANGES OR ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND SPECIFY THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATIONS, AND EDUCATION LAW SECTION 7209-20.



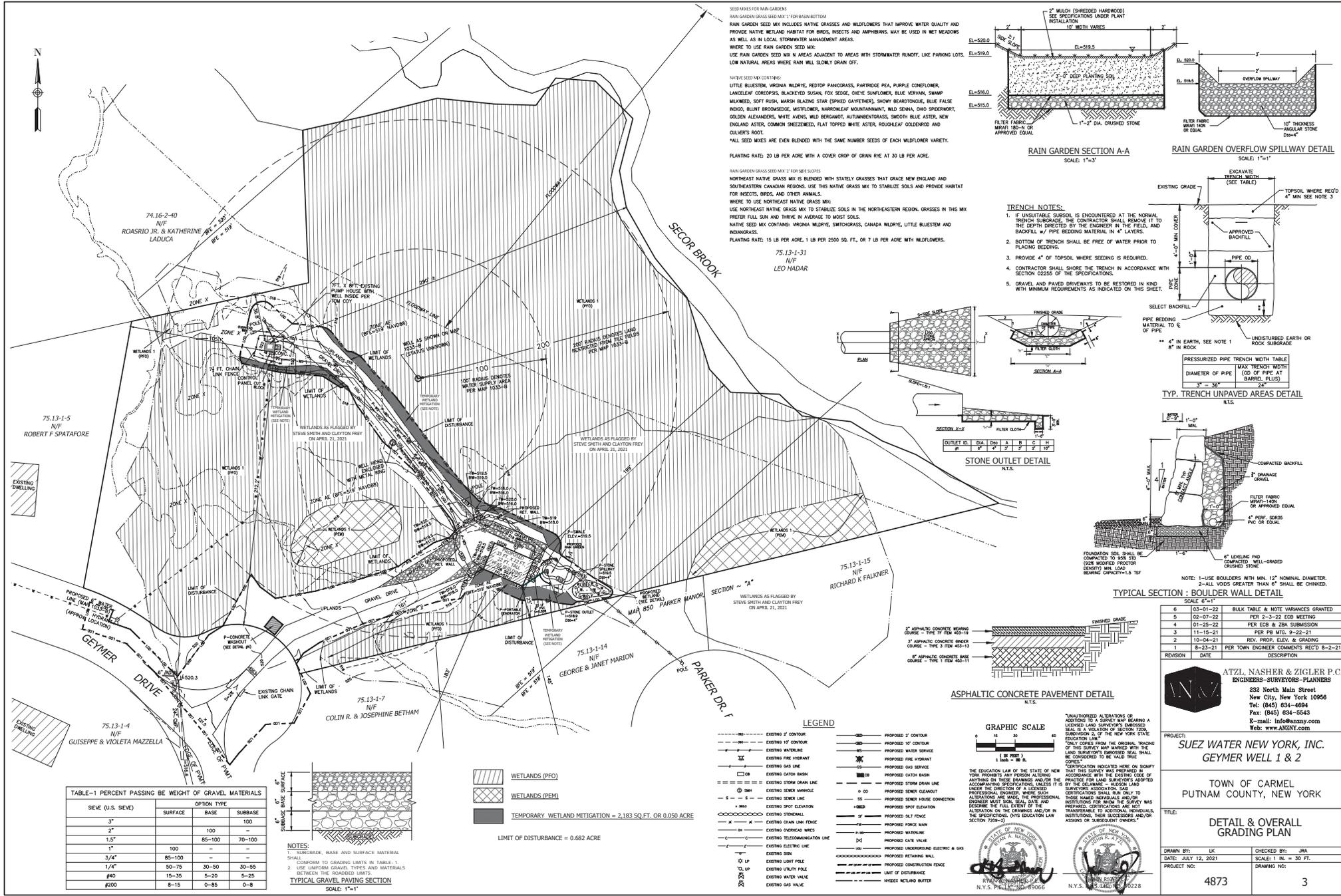
ATZL NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
832 North Main Street
New City, New York 10956
Tel: (845) 634-4894
Fax: (845) 634-5543
E-mail: info@anzny.com
Web: www.ANZNY.com

PROJECT: **SUEZ WATER NEW YORK, INC. GEYMER WELL 1 & 2**

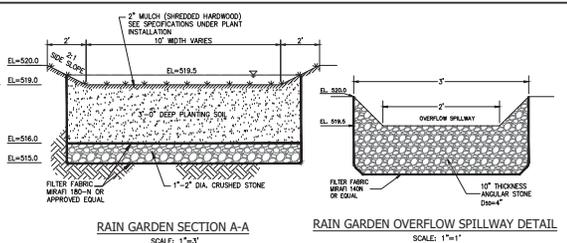
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

TITLE: **EXISTING CONDITION**

DRAWN BY: LX	CHECKED BY: JRA
DATE: JULY 12, 2021	SCALE: 1 IN. = 30 FT.
PROJECT NO: 4873	DRAWING NO: 2



SEED MIXES FOR RAIN GARDENS
 RAIN GARDEN SEED MIX #1 (FOR BROWN BOTTOM)
 RAIN GARDEN SEED MIX #2 (FOR SANDY SOIL)
 RAIN GARDEN SEED MIX #3 (FOR CLAY SOIL)
 RAIN GARDEN SEED MIX #4 (FOR SILTY SAND)
 RAIN GARDEN SEED MIX #5 (FOR SILTY CLAY)
 RAIN GARDEN SEED MIX #6 (FOR CLAY WITH SILT)
 RAIN GARDEN SEED MIX #7 (FOR SANDY SILT)
 RAIN GARDEN SEED MIX #8 (FOR SILTY SAND WITH CLAY)
 RAIN GARDEN SEED MIX #9 (FOR SANDY SILT WITH CLAY)
 RAIN GARDEN SEED MIX #10 (FOR SANDY SILT WITH CLAY AND ORGANIC MATTER)



TRENCH NOTES:
 1. IF UNSTABLE SUBSOIL IS ENCOUNTERED AT THE NORMAL TRENCH DEPTH, THE CONTRACTOR SHALL REMOVE IT TO THE DEPTH DIRECTED BY THE ENGINEER IN THE FIELD, AND BACKFILL W/ PIPE BEDDING MATERIAL IN 4\"/>

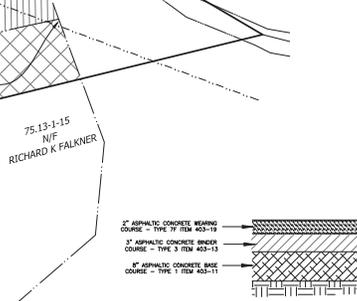
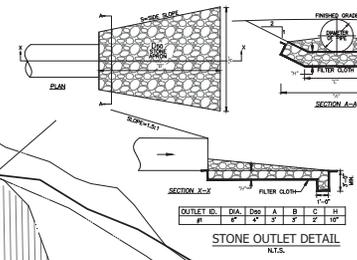
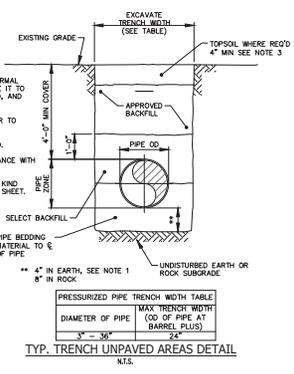
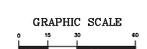
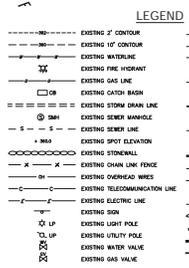
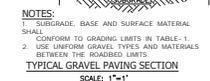


TABLE-1 PERCENT PASSING BY WEIGHT OF GRAVEL MATERIALS

SEIVE (U.S. SEIVE)	OPTION TYPE	
	BASE	SUBBASE
3"	100	100
2"	100	100
1.5"	100	85-100
1"	100	70-100
3/4"	85-100	-
1/4"	50-75	30-50
#40	15-35	5-20
#200	8-15	0-8



UNAUTHORIZED ALTERATIONS OF THIS SURVEY MAP BEARING A SEAL IS A VIOLATION OF SECTION 2209, SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW.
 THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHOSE SUCH ALTERATIONS HE MAKES, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL DATE AND SIGNATURE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. ANY EDUCATION LAW SECTION 2209-20.

REVISION

NO.	DATE	DESCRIPTION
6	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
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2	10-04-21	REV. PROSP. ELEV. & GRADING
1	8-23-21	PER TOWN ENGINEER COMMENTS REC'D 8-2-21

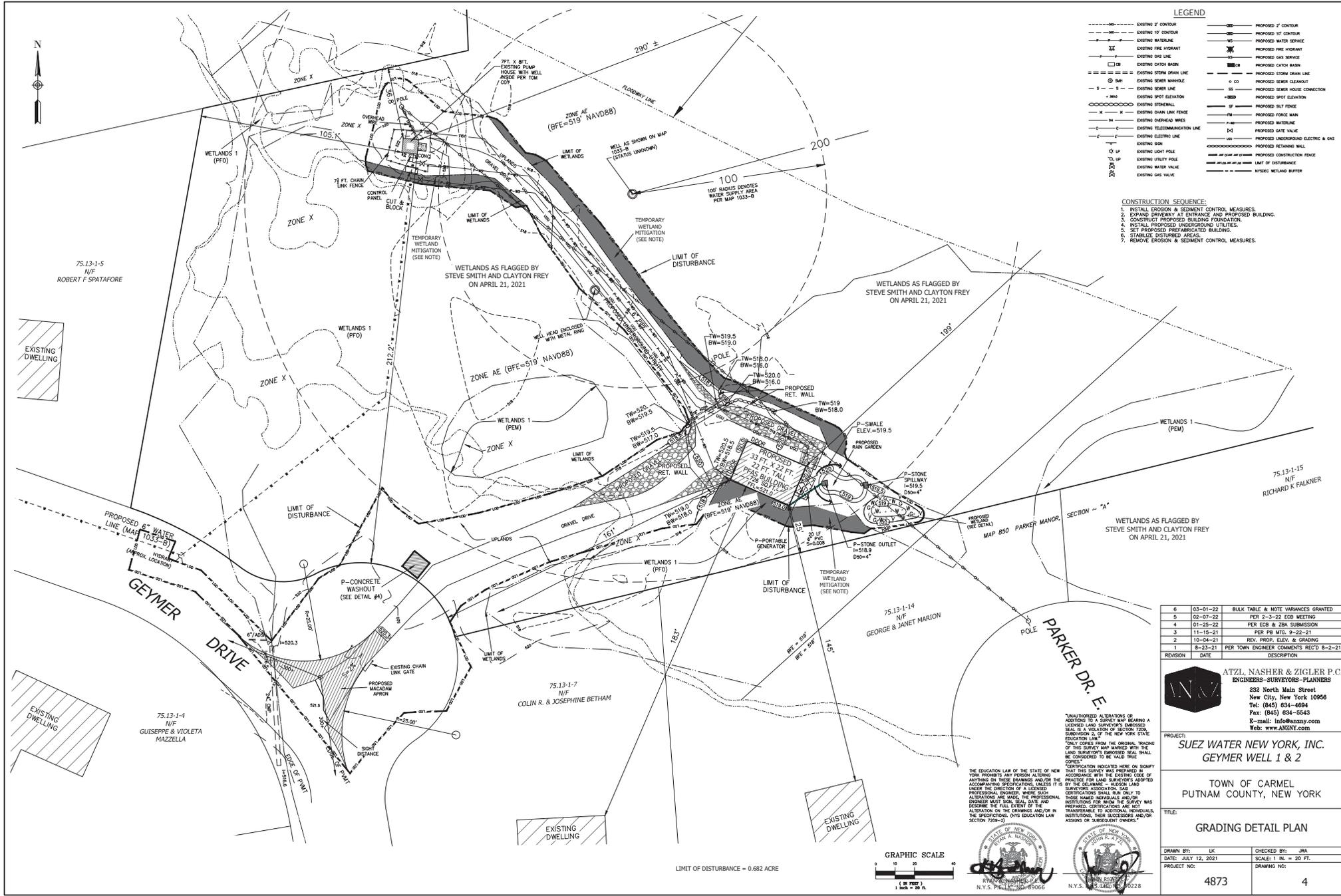
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 Web: www.anzny.com

SUEZ WATER NEW YORK, INC.
 GEYMER WELL 1 & 2

TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: DETAIL & OVERALL GRADING PLAN

DRAWN BY: LK **CHECKED BY: JRA**
DATE: JULY 12, 2021 **SCALE: 1" = 30'**
PROJECT NO: 4873 **DRAWING NO: 3**



LEGEND

---	EXISTING 2' CONTOUR	---	PROPOSED 2' CONTOUR
---	EXISTING 10' CONTOUR	---	PROPOSED 10' CONTOUR
---	EXISTING WATERLINE	---	PROPOSED WATER SERVICE
---	EXISTING FIRE HYDRANT	---	PROPOSED FIRE HYDRANT
---	EXISTING GAS LINE	---	PROPOSED GAS SERVICE
---	EXISTING CATCH BASIN	---	PROPOSED CATCH BASIN
---	EXISTING STORM DRAIN LINE	---	PROPOSED STORM DRAIN LINE
---	EXISTING SEWER MANHOLE	---	PROPOSED SEWER CLEANOUT
---	EXISTING SEWER LINE	---	PROPOSED SEWER HOSE CONNECTION
---	EXISTING SPOT ELEVATION	---	PROPOSED SPOT ELEVATION
---	EXISTING STONEWALL	---	PROPOSED SILT FENCE
---	EXISTING OVERHEAD WIRE	---	PROPOSED FORCE MAIN
---	EXISTING CHAIN LINK FENCE	---	PROPOSED WATERLINE
---	EXISTING TELECOMMUNICATION LINE	---	PROPOSED SATELLITE
---	EXISTING ELECTRIC LINE	---	PROPOSED UNDERGROUND ELECTRIC & GAS
---	EXISTING SIGN	---	PROPOSED RETAINING WALL
---	EXISTING LIGHT POLE	---	PROPOSED CONSTRUCTION FENCE
---	EXISTING UTILITY POLE	---	EXISTING UTILITY POLE
---	EXISTING WATER VALVE	---	EXISTING WATER VALVE
---	EXISTING GAS VALVE	---	EXISTING GAS VALVE

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

REVISION	DATE	DESCRIPTION
6	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
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4	01-25-22	PER ECB & ZBA SUBMISSION
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2	10-04-21	REV. PROP. ELEV. & GRADING
1	8-23-21	PER TOWN ENGINEER COMMENTS REC'D 8-2-21

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PROJECT: **SUEZ WATER NEW YORK, INC.**
GEYMER WELL 1 & 2

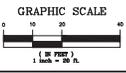
TOWN OF CARMEL
 PUTNAM COUNTY, NEW YORK

TITLE: **GRADING DETAIL PLAN**

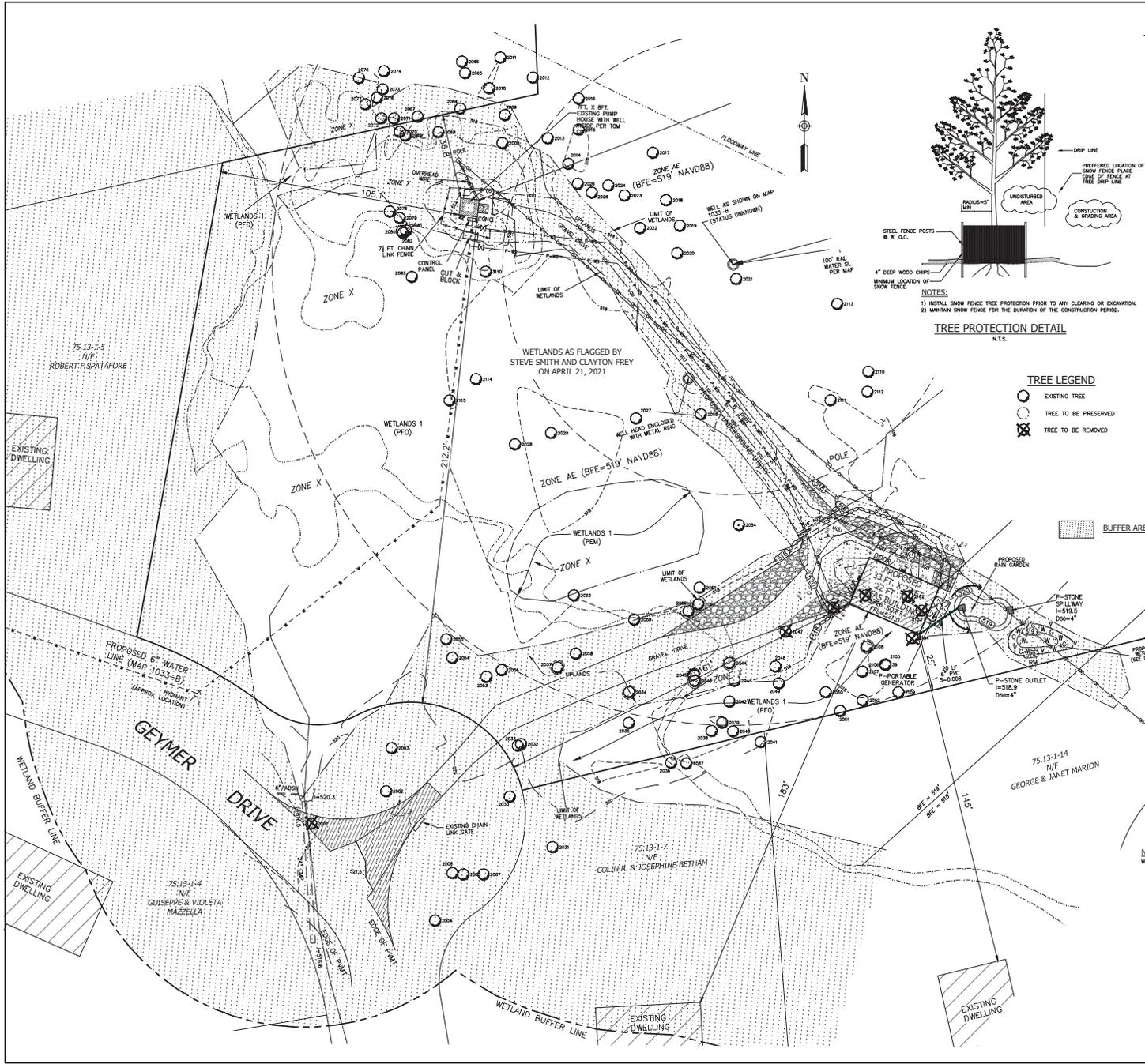
DRAWN BY: LK	CHECKED BY: JRA
DATE: JULY 12, 2021	SCALE: 1 IN. = 20 FT.
PROJECT NO:	DRAWING NO:
4873	4

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EXERCISE SEAL IS A VIOLATION OF SECTION 2209, SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW.
 ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EXERCISE SEAL SHALL BE CONSIDERED TO BE VALID INSTRUMENTS."
 CERTIFICATION INDICATED HERE ON SHOWS THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXERCISE CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE REGULATORY AGENCY UNDER THE SUPERVISION OF THE STATE EDUCATION BOARD. THESE CERTIFICATIONS SHALL RUN ONLY TO THOSE HAVING JURISDICTION AND/OR INSTRUCTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, OR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS.

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON, INCLUDING ANYONE ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHOSE SUCH ALTERATIONS AND/OR ADDITIONS TO THESE DRAWINGS MUST SIGN, SEAL, DATE AND SIGNATURE THE FULL EXTENT OF THE ALTERATION IN THE DRAWINGS AND/OR IN THE SPECIFICATIONS, UNDER EDUCATION LAW SECTION 2209-2.

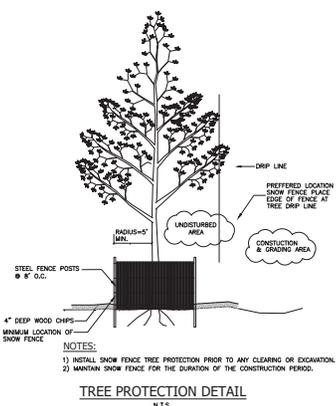


LIMIT OF DISTURBANCE = 0.682 ACRE



TREE LIST

NO.	SIZE	DESCRIPTION	CONDITION	NO.	SIZE	DESCRIPTION	CONDITION
2001	18"	TRIPLE-MAPLE	GOOD	2052	7"	MAPLE	GOOD
2002	60"	WILLOW	GOOD	2053	18"	OKM	GOOD
2003	6"	HICKORY	GOOD	2054	8"	TULIP	GOOD
2004	23"	MAPLE	GOOD	2055	23"	POPLAR	GOOD
2005	12"	MAPLE	GOOD	2056	10"	TWIN MAPLE	GOOD
2006	16"	OKM	POOR	2057	6"	TWIN ASH	POOR
2007	24"	MAPLE	GOOD	2058	7"	MAPLE	GOOD
2008	10"	BIRCH	POOR	2059	8"	QUAD MAPLE	GOOD
2009	10"	MAPLE	GOOD	2060	11"	MAPLE	GOOD
2010	15"	TWIN MAPLE	GOOD	2061	7"	MAPLE	GOOD
2011	6"	BIRCH	GOOD	2062	6"	ASH	GOOD
2012	6"	MAPLE	POOR	2063	8"	ELM	POOR
2013	12"	MAPLE	GOOD	2064	13"	TWIN MAPLE	POOR
2014	15"	MAPLE	GOOD	2065	6"	ASH	POOR
2015	15"	MAPLE	POOR	2066	7"	MAPLE	POOR
2016	16"	MAPLE	GOOD	2067	14"	MAPLE	POOR
2017	10"	TWIN MAPLE	GOOD	2068	12"	OKM	GOOD
2018	9"	MAPLE	POOR	2069	7"	BIRCH	POOR
2019	7"	MAPLE	POOR	2070	10"	BIRCH	GOOD
2020	15"	MAPLE	POOR	2071	6"	MAPLE	POOR
2021	14"	MAPLE	GOOD	2072	7"	OKM	GOOD
2022	10"	MAPLE	GOOD	2073	12"	OKM	GOOD
2023	11"	MAPLE	GOOD	2074	6"	BIRCH	GOOD
2024	6"	HICKORY	GOOD	2075	10"	OKM	GOOD
2025	6"	TULIP	GOOD	2076	7"	OKM	GOOD
2026	7"	TULIP	GOOD	2077	10"	OKM	GOOD
2027	11"	MAPLE	GOOD	2078	10"	MAPLE	GOOD
2028	10"	MAPLE	GOOD	2079	11"	OKM	GOOD
2029	9"	MAPLE	GOOD	2080	10"	TULIP	GOOD
2030	12"	TULIP	GOOD	2081	10"	MAPLE	GOOD
2031	30"	MAPLE	GOOD	2082	9"	MAPLE	GOOD
2032	7"	MAPLE	GOOD	2083	20"	MAPLE	GOOD
2033	10"	MAPLE	GOOD	2084	6"	QUAD MAPLE	POOR
2034	7"	MAPLE	GOOD	2085	10"	MAPLE	GOOD
2035	21"	MAPLE	GOOD	-4400-	6"	QUAD-HICKORY	GOOD
2036	17"	MAPLE	GOOD	-4401-	6"	TWIN-HICKORY	GOOD
2037	14"	MAPLE	GOOD	-4402-	6"	MAPLE	GOOD
2038	9"	MAPLE	POOR	-4403-	6"	MAPLE	GOOD
2039	11"	ASH	POOR	-4404-	6"	HICKORY	GOOD
2040	7"	ASH	POOR	2105	9"	MAPLE	GOOD
2041	14"	MAPLE	GOOD	2106	9"	MAPLE	GOOD
2042	6"	MAPLE	POOR	2107	9"	MAPLE	GOOD
2043	8"	ASH	POOR	2108	8"	TWIN MAPLE	GOOD
2044	8"	TWIN ASH	POOR	2109	8"	MAPLE	GOOD
2045	11"	ASH	POOR	2110	14"	TWIN MAPLE	GOOD
2046	7"	ASH	POOR	2111	9"	ELM	GOOD
-0447-	6"	ASH	POOR	2112	10"	HICKORY	GOOD
2048	13"	MAPLE	POOR	2113	10"	MAPLE	GOOD
2049	10"	TWIN MAPLE	POOR	2114	8"	MAPLE	POOR
2050	12"	TULIP	GOOD	2115	9"	HICKORY	POOR
2051	6"	MAPLE	GOOD	3110	18"	OKM	POOR



TREE LEGEND

- EXISTING TREE
- TREE TO BE PRESERVED
- ⊗ TREE TO BE REMOVED

CONTACT INFORMATION

RAB
175 WEST 42ND STREET, NEW YORK, NY 10018-3602
TEL: (212) 693-8800 FAX: (212) 693-8801

CONTACT INFORMATION:
DAMIAN SALZS (732) 985-8886
RAB LIGHTING (201) 931-8082

SLIM12Y WALL MOUNT DETAIL

N.T.S.

Luminaire Schedule	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	BUG Rating
C	2	SLIM12Y	SINGLE	N.A.	1.000	Wall Mount	B1-UG-G0

REVISIONS

REVISION	DATE	DESCRIPTION
6	03-01-22	BULK TABLE & NOTE VARIANCES GRANTED
5	02-09-22	PER 2-3-22 ECR MEETING
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2	10-04-21	REV. PROP. ELEV. & GRADING
1	8-23-21	PER TOWN ENGINEER COMMENTS REC'D 8-2-21

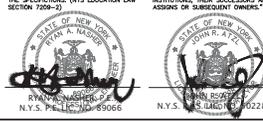
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SUEZ WATER NEW YORK, INC.
GEYMER WELL 1 & 2

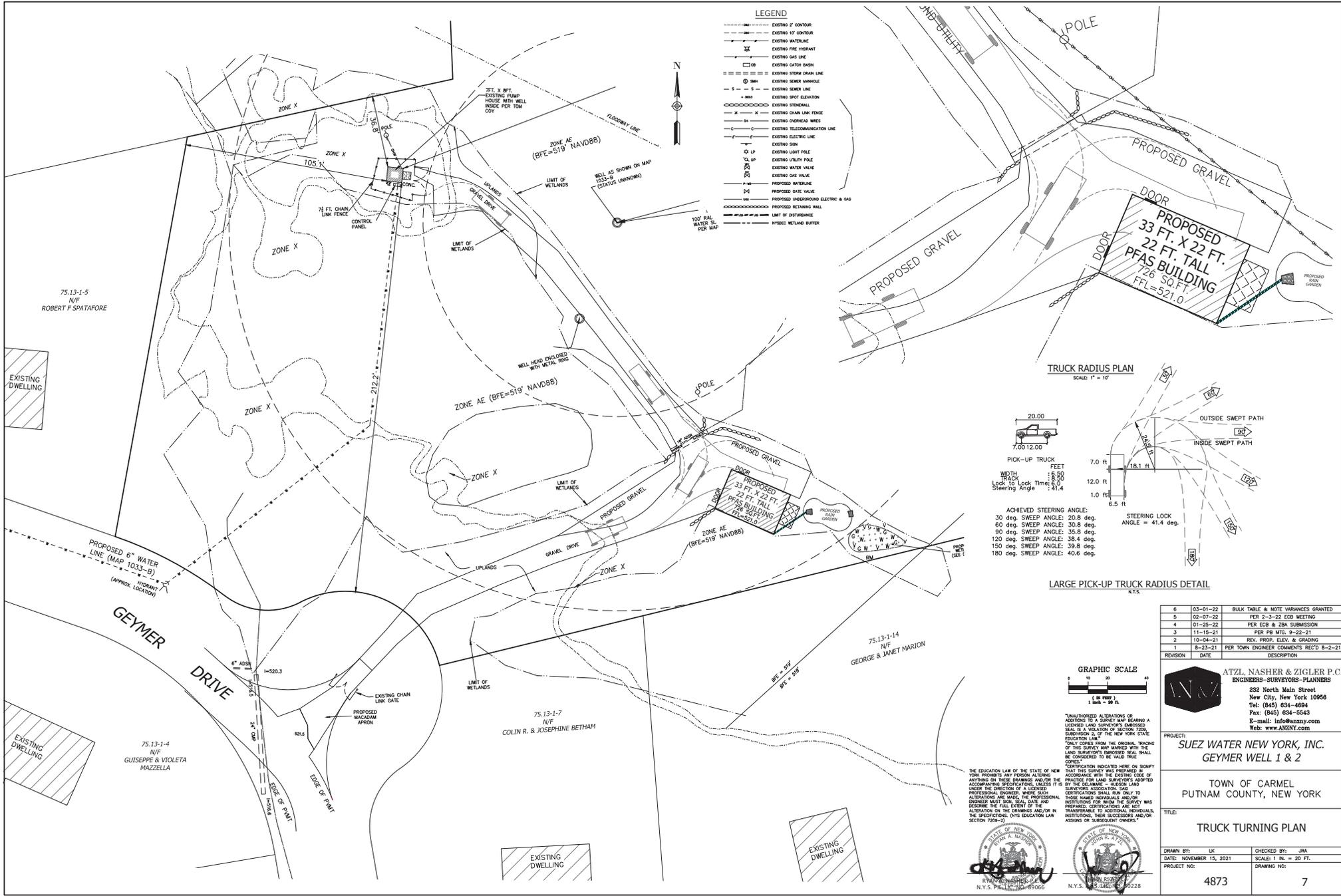
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

TREE & LIGHTING PLAN

DATE: JULY 12, 2021	CHECKED BY: JRA
PROJECT NO:	DRAWING NO:
4873	6

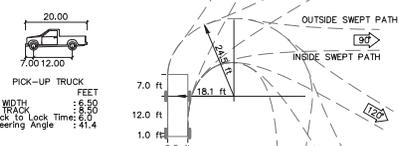


NOTE:
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- LEGEND**
- EXISTING 2' CONTOUR
 - EXISTING 10' CONTOUR
 - EXISTING WATERLINE
 - EXISTING GAS LINE
 - EXISTING FIRE HYDRANT
 - EXISTING SLOPE
 - EXISTING STORM DRAIN LINE
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER LINE
 - EXISTING SPOT ELEVATION
 - EXISTING STONEWALL
 - EXISTING CHAIN LINK FENCE
 - EXISTING SURROUND WIRE
 - EXISTING TELECOMMUNICATION LINE
 - EXISTING ELECTRIC LINE
 - EXISTING SIGN
 - EXISTING LIGHT POLE
 - EXISTING UTILITY POLE
 - EXISTING WATER VALVE
 - EXISTING GAS VALVE
 - PROPOSED WATERLINE
 - PROPOSED GAS VALVE
 - PROPOSED UNDERGROUND ELECTRIC & GAS
 - PROPOSED RETAINING WALL
 - LIMIT OF SETBACK
 - HYDRO WETLAND BUFFER

TRUCK RADIUS PLAN
SCALE 1" = 10'

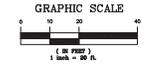


ACHIEVED STEERING ANGLE:

30 deg. SWEEP ANGLE:	20.8 deg.
60 deg. SWEEP ANGLE:	30.8 deg.
90 deg. SWEEP ANGLE:	35.8 deg.
120 deg. SWEEP ANGLE:	38.4 deg.
150 deg. SWEEP ANGLE:	39.8 deg.
180 deg. SWEEP ANGLE:	40.6 deg.

STEERING LOCK ANGLE = 41.4 deg.

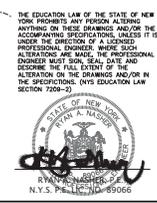
LARGE PICK-UP TRUCK RADIUS DETAIL
N.T.S.



"UNAUTHORIZED ALTERATIONS OF ANY KIND TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2 OF THE NEW YORK STATE EDUCATION LAW.

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PROJECT: **SUEZ WATER NEW YORK, INC.**
GEYMER WELL 1 & 2

TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

TITLE: **TRUCK TURNING PLAN**

DRAWN BY:	LM	CHECKED BY:	JRA
DATE:	NOVEMBER 15, 2021	SCALE:	1 IN. = 20 FT.
PROJECT NO.:	4873	DRAWING NO.:	7