Village of Pomona

Special Permit Application

All applicants are encouraged to read and review the Village Code when preparing an application for a Special Permit. **Note:** Any fee paid along with this application for a Special Permit is in addition to any fee that may be paid as it relates to an application for Planning Board Site Plan Approval.

INSTRUCTIONS

Only completed applications will be scheduled for review by the appropriate Board as provided in the Village Code for the Village of Pomona. An application will not be deemed complete until all requirements are met and the Village Board receives the reports of its professionals, board and other entities in accordance with Section 130-28(E)(4)(b) of the Village Code. The following shall also be submitted in order for an application to be deemed complete:

1. Filing fee (see fee schedule); will be submitted at a later date
2. An application for site development plan approval with the Village of Pomona Planning Board and 4 copies of the site plan. already submitted under separate cover
3. 12 copies of the application, 12 plot plans drawn to scale (showing setbacks and other dimensions) or 12 surveys that has been sworn or attested to as being true and accurate; already submitted under separate cover
4. 12 copies of a narrative describing why the applicant is applying for a Special Permit; already submitted under separate cover
5. List of names and addresses, along with stamped self-addressed envelopes, of all property owners within a **500 foot radius** of the property covered in the application; will be submitted at a later date
6. 12 copies of a vicinity map; already submitted under separate cover
7. 12 copies of a site plan; and already submitted under separate cover
8. Full Environmental Assessment Form (FEAF) (regardless of type of action). already submitted under separate cover
9. Applicable escrow fees as determined by the Village's professionals. will be submitted at a later date, once amount is known

The completed application must be received at least 21 days prior to the next regularly scheduled meeting in order to be scheduled for review by the appropriate Board at their next regularly scheduled meeting following receipt of the application. The application is subject to the review by the Village's professionals. You will be notified as the date of the meeting and/or pre-application conference to review this application.

***NOTE**: Incomplete applications, which include applications submitted without the proper fees will not be considered for any preliminary or Pre-submission conference and/or meeting with any Board or any of the Board's professionals. By submitting this application, the applicant/property owner hereby grants permission to the Village of Pomona, its agents, servants, officials, contractors, and employees to enter upon the above described property solely for the purposes incidental to the within application at reasonable times upon reasonable notice to the applicant, owner or tenant in possession.*

Village of Pomona
PART I

Date: 6/20/23

Project Name: New Haverstraw Tank Project

Applicant Name: Steven Garabed, P.E., Manager of Engineering
Veolia Water New York, Inc.

Phone # 845-620-3319 Cell Phone # 201-538-0690

E-Mail Address: steven.garabed@veolia.com

Address: 162 Old Mill Road, West Nyack, NY 10994
Street Name & Number (Post Office) State Zip Code

Property Owner: Christopher Graziano, Vice President & General Manager
Veolia Water New York, Inc.

E-Mail Address: christopher.graziano@veolia.com

Phone # 845-620-3352 Cell Phone #

Address: 162 Old Mill Road, West Nyack, NY 10994
Street Name & Number (Post Office) State Zip Code

Engineer/Architect/Surveyor: Gary R. Stuart, P.E., Project Manager, CDM Smith

Web Site: www.cdmsmith.com

E-Mail Address: stuartgr@cdmsmith.com

Phone # 518-782-4520 Cell Phone # 518-527-6698

License # 071670 State of issue New York

Address: 3 Lear Jet Lane, Suite 100N, Latham, NY 12110
Street Name & Number (Post Office) State Zip Code

Village of Pomona

Date: 6/20/23

Attorney: Lino J. Sciarretta,, Esq., Bleakley Platt & Schmidt, LLP
Daniel B. Fix, Esq., Bleakley Platt & Schmidt, LLP

Web Site: www.bpslaw.com

E-Mail Address: LSciarreta@bpslaw.com/DFix@bpslaw.com

Phone # Lino: 914-287-6177 Daniel: 914-287-6127 Cell Phone # Lino: 914-393-6460 Daniel: 202-329-9114

Address: One Blue Hill Plaza, 3rd Floor, Pearl River, NY10965
Street Name& Number (Post Office) State Zip Code

Contact Person: Gary R. Stuart, P.E., Project Manager - CDM Smith

E-Mail Address: stuartgr@cdmsmith.com

Phone # 518-782-4520 Cell Phone # 518-527-6698

Address: 3 Lear Jet Lane, Suite 100N, Latham, NY 12110
Street Name & Number (Post Office) State Zip Code

Secondary Contact Person: Steven Garabed, P.E., Manager of Engineering
Veolia Water New York, Inc.

E-Mail Address: steven.garabed@veolia.com

Phone # 845-620-3319 Cell Phone # 201-538-0690

Address: 162 Old Mill Road, West Nyack, NY 10994
Street Name & Number (Post Office) State Zip Code

Village of Pomona

Date: 6/20/23

TYPE OF SPECIAL USE REQUESTED: (CHECK THE ONLY ONES THAT APPLIES)

____ Recreational facilities; playgrounds, swimming clubs, tennis courts and recreational buildings not conducted as a business enterprise (Zoning Board of Appeals)

__X__ Reservoirs on lots of three acres or more, and water towers and water tanks owned and operated by a public utility (Village Board)

____ Telephone Exchange/ Public Utility Substation, communications centers for emergency and other purposes, and any and all other public utility facilities which are or support the primary function of the public utility company (Zoning Board of Appeals)

____ Camp (Village Board)

____ Wireless Telecommunications Service (Village Board)

____ Educational Institutions (Village Board)

_____ House of Worship (Village Board)
____ Community

____ Neighborhood

____ Other Use Permitted by Special Permit: _____

TO THE BEST OF YOUR ABILITY, PLEASE DESCRIBE THE NATURE OF THE SPECIAL USE REQUESTED: (Attach separate page, if necessary)

Veolia (formerly SUEZ) Water New York plans to install a new 2 million gallon water storage tank at 83 Halley Drive, Pomona, NY for additional water storage to better manage peak demands and improve system hydraulics. The work will also allow the adjacent 5 million gallon tank to be temporarily taken out of service for inspection and any needed repairs/painting. The proposed project involves installing a new 2 million gallon tank, a new pre-fabricated metering and chlorination building, and installing associated piping and valves. Associated site work, electrical, plumbing, and HVAC required for the building operation are included in the project. Please also see attached Project Narrative.

Village of Pomona

Tax Map Designation:

Section 25.05 Block 1 Lot(s): 6

Section _____ Block _____ Lot(s): _____

Location: On the west side of Halley Drive,

approximately 250 feet north of Overlook Road.

Acreage of Parcel 4.936 acres **Zoning District** R-40

School District East Ramapo **Postal District** Pomona

Project Description: *(If additional space required, please attach a narrative summary.)*

Veolia (formerly SUEZ) Water New York plans to install a new 2 million gallon water storage tank at 83 Halley Drive, Pomona, NY for additional water storage to better manage peak demands and improve system hydraulics. The work will also allow the adjacent 5 million gallon tank to be temporarily taken out of service for inspection and any needed repairs/painting. The proposed project involves installing a new 2 million gallon tank, a new pre-fabricated metering and chlorination building, and installing associated piping and valves. Associated site work, electrical, plumbing, and HVAC required for the building operation are included in the project. Please also see attached Project Narrative.

If subdivision:

1) Is any variance from the subdivision regulations required? NA

2) Is any open space being offered? NA.

If so, what amount?
NA

Project History: Has this project ever been reviewed before by any Board within the Village?
Yes

If so, list case number, name, date, and the board you appeared before.
Technical Advisory Committee, 2/16/22 - no case no. assigned
Technical Advisory Committee, 2/8/23 - no case no. assigned
Village Planning Board, 6/15/23 - no case no. assigned

List tax map section, block & lot numbers for all other abutting properties with the same ownership as this project including any entity for which the applicant holds more than a 5% interest.
NA

Village of Pomona

IF ANY ITEM IS CHECKED, A REVIEW MUST BE DONE BY THE ROCKLAND COUNTY COMMISSIONER OF PLANNING UNDER THE STATE GENERAL MUNICIPAL LAW, SECTIONS 239 l, m, AND n.

The subject property is within 500 feet of:

(Check all that apply)

____	State Road / Highway	X	County or State Parkway, Thruway, Expressway, Road, or Highway
____	State or County Park or Recreation Area	____	County Stream or Channel
X	Municipal Boundary	____	County Owned Land with a Public Building
____	Boundary of a Farm or Agricultural District	____	State Owned Land with a Public Building

List name(s) of locations checked above. Property (83 Halley Drive) is less than 500 from Call Hollow Road (County Route 75) and the Village Boundary.

Applicant's Signature and Certification

State of New York)
County of Rockland) SS.:

I, Steven Garabed, P.E., Manager of Engineering, hereby depose and say that all the above statements contained in the papers submitted herewith are true.

Mailing Address:

Steven Garabed, P.E.
Manager of Engineering
Veolia Water New York, Inc.
162 Old Mill Road, West Nyack, NY 10994

SWORN to before this

22nd day of June, 2023

Notary Public

JANET A GONZALEZ
Registration #01GO6207336
Qualified in Rockland County
My Commission Expires
June 8, 2025

Village of Pomona
Affidavit of Ownership/Owner's Consent

State of New York)
County of _____) SS.:

I, Christopher Graziano, Vice President & General Manager Veolia Water New York, Inc., being duly sworn, hereby deposes and states that I ~~reside~~ own the property at: 83 Halley Drive, Pomona, New York

in the county of Rockland in the state of New York.

I am the * Vice President & General Manager Veolia Water New York, Inc. owner in fee simple of premises located at: 83 Halley Drive, Pomona, New York

described in a certain deed of said premises recorded in the Rockland County Clerk's Office in Liber 780 of conveyances, page 1022.

Said premises have been in my/its possession since 1964. Said premises are also known and

designated on the Village / Village of Pomona Tax Map as:

Section 25.05 block 1 lot(s) 6.

I, hereby authorize the within application on my behalf, and hereby certify that the statements of fact contained in said application are true, and hereby agree to be bound by the determination of the Board.

Owner: _____
Christopher Graziano,
Vice President & General Manager
Mailing Address: Veolia Water New York, Inc.
162 Old Mill Road, West Nyack, NY 10994

SWORN to before this

22nd day of June, 2023

_____
Notary Public

JANET A GONZALEZ
Registration #01GO6207336
Qualified in Rockland County
My Commission Expires
June 8, 2025

** If owner is a corporation, fill in the office held by deponent and name of corporation, and provide a list of all directors, officers and stockholders owning more than 5% of any class of stock.*

Village of Pomona

Affidavit Pursuant to Section 809 of the General Municipal Law

State of New York)
County of _____) SS.:

I, Christopher Graziano, Vice President & General Manager Veolia Water New York, Inc., being duly sworn, hereby deposes and states that all the following statements and the statements contained in the papers submitted herewith are true and that the nature and extent of any interests set forth are disclosed to the extent that they are known to the applicant.

1. Print or type full name and post office address: Christopher Graziano, Vice President & General Manager
Veolia Water New York, Inc.
162 Old Mill Road, West Nyack, NY 10994

certifies that he/she is owner or agent of all that certain lot, piece or parcel of land and/or building described in this application **and if not the owner that he/she has been duly and properly authorized to make this application and to assume responsibility for the owner** in connection with this application for the relief below set forth:

2. To the Village Board of the Village of Pomona, Rockland County, New York:

An application is hereby submitted for a:

(X) Special Permit per the requirements of Article XVIII of the Village Code;

To permit construction, maintenance and use of a water storage tank and associated facilities

3. Premises affected are in a R-40 **zone** and from the Village of Pomona tax map, the property is known as Section 25.05, Block, 1, Lot(s) 6.

4. There is no state officer, Rockland County Officer or employee or Village officer or employee nor his or her spouse, brother, sister, parent, child or grandchild, or a spouse of any of these relatives who is the applicant or who has an interest in the person, partnership or association making this application, petition or request, or is an officer, director, partner or employee of the applicant, or that such officer or employee, if this applicant is a corporation, legally or beneficially owns or controls any stock of the applicant in excess of 5% of the total of the corporation if its stock is listed on the New York or American Stock Exchanges; or is a member or partner of the applicant, if the applicant is an association or a partnership; nor that such Village officer or employee nor any member of his family in any of the foregoing classes is a party to an agreement with the applicant, express or implied, whereby such officer or employee may receive any payment or other benefit, whether or not for service rendered, which is dependent or contingent upon the favorable approval of this application, petition or request.

5. That to the extent that the same is known to your applicant, and to the owner of the subject premises **there is disclosed herewith** the interest of the following officer or employee of the State of New York

or the County of Rockland or of the Village of Pomona in the application or in the property or subject matter to which it relates: (**If none, so state**).

a. Name and address of the officer or employee None

b. Nature of the officer's or employee's interest: _____

c. If stockholder, number of shares _____

d. If officer or partner, provide the nature of office and name of partnership

e. If a spouse or brother, sister, parent, child, grandchild or the spouse of any of these blood relatives of such state, county or Village officer or employee, state name and address of such relative and nature of relationship to officer and employee and nature and extent of office, interest or participation or association having an interest in such ownership or in any business entity sharing in such ownership.

f. In the event of corporate ownership: A list of all directors, officers and stockholders of each corporation owning more than five (5%) percent of any class of stock, must be attached, if any of these are officers or employees of the State of New York, or of the County of Rockland, or of the Village of Pomona.

I, Christopher Graziano, Vice President & General Manager Veolia Water New York, Inc., do hereby depose and state that all the above statements and statements contained in the papers submitted herewith are true, knowing that a person who knowingly and intentionally violates this section is guilty of a misdemeanor.

Mailing Address: 162 Old Mill Road, West Nyack, NY 10994

Sworn to before me this 22nd day of June, 2023

Notary Public

JANET A GONZALEZ
Registration #01GO6207336
Qualified in Rockland County
My Commission Expires
June 8, 2025

Christopher Graziano
Vice President & General Manager
Veolia Water New York, Inc.
162 Old Mill Road, West Nyack, NY 10994

Village of Pomona

AFFIDAVIT OF OWNERSHIP

STATE OF NEW YORK}
COUNTY OF _____ } SS:

Christopher Graziano, Vice President & General Manager
Veolia Water New York, Inc. being duly sworn, deposes and says that he/she ~~resides~~ owns the property at

83 Halley Drive, Pomona, New York

in the County of Rockland, State of New York; that he/she is the owner in fee of all that certain lot, piece or parcel of land situated, lying and being in the Village of Pomona, and designated on the Village of Pomona Map as Section No. 25.05 Block No. 1 Lot No. 6 and that he/she hereby authorizes the attached application to be submitted in his/her behalf and that the statements of fact contained in said application are true to the best of the applicant's knowledge. The applicant is the (owner) (contract vendee) of the said property.

Owner: _____
Christopher Graziano
Address: Vice President & General Manager
Veolia Water New York, Inc.
162 Old Mill Road
West Nyack, NY 10994

Sworn to before me this

22nd day of June 2023

_____
Notary Public

JANET A GONZALEZ
Registration #01GO6207336
Qualified in Rockland County
My Commission Expires
June 8, 2025

To be submitted at a later date

Village of Pomona
AFFIDAVIT OF SURROUNDING PROPERTIES

State of New York)
County of _____) SS.:
Village of _____)

I, _____being duly sworn deposes and says that he is the applicant, agent or attorney for applicant, in the matter of the petition before the Village Board in the Village of Pomona affecting property located at _____, Rockland County, New York.

That the following are all of the owners of property located within 500 **feet** *(distance)* from the premises as to which this application is being taken.

SECTION/BLOCK/LOT ---- NAME & ADDRESS:

Sworn to before me this

_____day of _____20____

_____
Notary Public

To be submitted at a later date

Village of Pomona

AFFIDAVIT OF POSTING

STATE OF NEW YORK }
COUNTY OF _____ } SS:

_____being duly sworn, deposes and says that he/she is the applicant in the matter of an application before the Village of Pomona affecting property located at _____, Village of Pomona, Rockland County, New York.

That on the _____day of _____20_____, he/she posted the notices provided by the Village of Pomona giving notice of the hearing on this application in a conspicuous place visible from every street along the frontage of the plot affected by this application.

_____

Sworn to before me this

_____day of _____20____

_____
Notary Public

To be submitted at a later date

Village of Pomona
DISCLAIMER

APPLICANT TAKES FULL RESPONSIBILITY FOR RESEARCHING THE TAX MAP FOR THE LIST OF NAMES OF PROPERTY OWNERS ON THE ENCLOSED *AFFIDAVIT OF MAILING LIST*, AND SUPPLYING THE NECESSARY AMOUNT OF SELF-ADDRESSED STAMPED ENVELOPES. THE APPLICANT'S ENVELOPES MUST COINCIDE WITH THE LIST. THE CLERK'S RESPONSIBILITY IS LIMITED TO CHECKING NAMES ON THE ENVELOPES AGAINST THE AFOREMENTIONED AFFIDAVIT BEFORE MAILING THEM.

RECEIPT OF THIS DISCLAIMER IS ACKNOWLEDGED

_____
APPLICANT

_____
DATED

Village of Pomona

SPECIAL USE PERMIT NOTE

The Village may approve, approve with conditions, or deny a Special Permit Application after review and consideration of the standards set forth in the Village Code for the Special Use sought in addition to general considerations of the public health, safety and welfare.

The Village Board or Zoning Board of Appeals, as authorized, shall have the authority to impose such reasonable conditions and restrictions as are directly related to and incidental to the proposed special use permit. Upon its granting of said special use permit, any such conditions must be met in connection with the issuance of permits by applicable enforcement agents or officers of the village.

The village board of trustees may further empower the authorized board to, when reasonable, waive any requirements for the approval, approval with modifications or disapproval of special use permits submitted for approval. Any such waiver is subject to appropriate conditions set forth in the Village Code and may be exercised in the event any such requirements are found not to be requisite in the interest of the public health, safety or general welfare or inappropriate to a particular special use permit.

In order to obtain a Special Use Permit, the Applicant must comply with all site plan requirements under the Village Code and applicable State Laws.

11 British American Blvd., Suite 200
Latham, New York 12110
tel: 518-782-4500

June 20, 2023

Mayor Fuchs and Village of Pomona Board of Trustees
Pomona Village Hall
100 Ladentown Road
Pomona, New York 10970
Attn: Jenna Antoine

Subject: Veolia (formerly SUEZ) Water New York
New Haverstraw Tank Project
Site Address: 83 Halley Drive
Tax Map Parcel ID: 25.05-1-6

Dear Ms. Antoine,

On behalf of our client Veolia Water New York (VWNY), and pursuant to our presentation to the Village's Planning Board on Thursday, 6/15/23, and discussion with Deputy Mayor Lasker at that meeting, we are writing this letter to apply for a Special Use Permit for a new 2-million-gallon (MG) potable water storage tank at 83 Halley Drive in the Village of Pomona.

As you may recall, this project was presented to the Village Board of Trustees on Monday, May 24, 2021. After the project was put on hold for a time, we have since submitted a full Site Plan Application to the Village's Planning Board and the board's planning and engineering professional. We have also attended two Technical Advisory Committee (TAC) Meetings and have addressed comments by the Village Planner and Village Engineer.

As directed by Deputy Mayor Lasker, we are respectfully requesting to be on the Village's Board of Trustees Meeting agenda on Monday, June 26, 2023, so we can present and discuss this project with the Board and get their input and direction. Items we would like to discuss are as follows:

- Lead agency for SEQR review.
- Need for zoning variances.
- County GML review.

Enclosures

For your use, we have enclosed twelve copies each of the following documents:

- Project Narrative.

- Full Environmental Assessment Form (FEAF).
- Project plan set which included the site development plan, grading plan, drainage plan and details, and erosion control plan and associated details.

We look forward to working with the Village on this vital project for both Veolia and the residents of the Village of Pomona, whom this new storage tank would serve. Please feel free to contact me with any questions or concerns at 518-782-4520 and/or stuartgr@cdmsmith.com. Thank you for your attention to this matter.

Sincerely,

Gary R. Stuart, P.E.
Project Manager
CDM Smith

Enclosures

Cc: Mendy Lasker, Deputy Mayor (electronic only)
Steve Garabed, VWNY (electronic only)
Daniel Fix, Esq., Bleakley Platt & Schmidt, LLP (electronic only)

Veolia Water New York
New Haverstraw Tank

Project Narrative

Project Description

Veolia Water New York (VWNY) is undertaking a project at the site of their existing Haverstraw Water Storage Tank off of Halley Drive in the Village of Pomona. The VWNY Master Plan indicated that additional water storage volume would be required throughout their system. VWNY identified that additional storage in Pressure District 20 - the area serving Pomona and parts of Haverstraw - would allow VWNY to better manage peak demands and improve system hydraulics, while also allowing VWNY to perform necessary repairs on the existing storage tank.

In 2017, VWNY completed an Alternatives Analysis in order to assess future tank locations. In total, seven sites were evaluated, including the existing water storage tank site at 83 Halley Drive. VWNY elected to pursue building the 2-million gallon (MG) water storage tank, for the following reasons:

- The location is hydraulically suitable, and existing piping and hydraulic infrastructure can carry the increase in volume at the Halley Drive site.
- The land at the Halley Drive site is already owned by VWNY and has enough space to construct a new storage tank and all necessary appurtenances.
- There are suitable access roads already constructed at the Halley Drive site.

As such, the Halley Drive site was selected due to the fact it is already developed and has suitable infrastructure that would have the least impact to the community and the existing water distribution system.

VWNY has retained CDM Smith to design the new 2-MG water storage tank at the Halley Road site. The new tank will be approximately 105 feet in diameter and approximately 54' feet tall and will be constructed approximately 20 feet to the southwest of the existing storage tank. The new storage tank will be surrounded by an access road. A new chemical metering building will also be constructed as part of this project, which will sample and disinfect water entering and leaving the site (if needed). New piping will be constructed at the site to allow each tank to operate independently. Additionally, the existing access road will be extended to the new storage tank location and the new metering building site. VWNY currently has no future plans for further site development at 83 Halley Drive once the new storage tank is completed and on-line.

Compliance with Village Code

The intent of this project is to comply with Village Code and meet the general standards set forth therein. Please note that this facility is for the storage of drinking water and is not a public facility. Only VWNY personnel and others specifically authorized by VWNY will have access to it. Below is commentary on the Village's general design requirements as it relates to the project:

A. *Traffic access. The number, location and design of all proposed driveways, in terms of their width, grade, alignment, visibility and relationship to the existing street system and neighboring*

properties and land uses, shall be such that maximum safety will be achieved and function properly provided for.

The site has an existing driveway. There will be no impact on or increase in traffic as a result of this project.

B. *On-site circulation and parking. Adequate and convenient off-street parking and loading spaces shall be provided to prevent parking in public streets of vehicles belonging to any persons connected with or visiting the proposed use, and the interior circulation system shall be adequate to provide safe access to all required off-street parking, including access for the handicapped.*

The site is not a public facility and is not staffed full-time. Sufficient area is available to safely park VWNY staff vehicles. There will be no parking in public streets.

C. *Pedestrian circulation. An adequate and safe pedestrian circulation system shall be provided to permit safe access to uses on the site from the street and from all parking areas.*

As noted previously, this is not a public facility.

D. *Landscaping and buffering. All parking, loading and service areas shall be screened in a reasonable manner at all seasons of the year from the view of adjacent residential lots and streets. The general landscaping of the site shall be designed in an attractive manner and, wherever possible, desirable natural features existing on the site shall be protected and retained.*

All areas disturbed during construction, that are not to be paved, will be topsoiled and seeded with grass.

E. *Lighting. Outdoor lighting shall be provided on the site to assure the safe movement of vehicles and persons and for security, and such lighting shall not create an undesirable impact on neighboring properties and streets.*

Lighting for the proposed building will be similar to the existing building. There will be an LED down-pointing light fixture above each exit door. It will provide for the safe movement of VWNY vehicles and personnel.

F. *Drainage. The proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or other contribution to downstream flooding during a storm of any magnitude up to and including a one-hundred-year-frequency storm.*

The proposed drainage system is shown on the plans. This project will not increase the rate of surface water runoff nor contribute to downstream flooding. All stormwater will be accommodated on the project parcel.

G. *Water and sewage. The proposed systems for water supply and sewage collection and disposal on the site shall be adequate, and Village facilities shall be sufficient to handle the increase in service.*

The existing facility does not require potable water supply nor sewer disposal, and the proposed building will not require potable water supply nor sewer disposal.

H. *Solid waste. Adequate provisions shall be made for the storage, collection and disposal of solid waste, and such facilities shall not be permitted to adversely affect neighboring properties or public facilities.*

There will be no impact to neighbors or public facilities.

I. *Building design. The height, location and size of the proposed buildings shall be in conformity with the requirements of this chapter, and all such buildings and other structures shall harmoniously relate to each other, the site and neighboring properties.*

The proposed storage tank and building are shown in the plans. The tank and building colors will be similar to the existing storage tank and building as practical.

J. *Signage. All proposed signs, including on-site directional signs and building signs, shall meet the requirements of this chapter, shall be adequate to provide reasonable information to the public and shall be in harmony with the design of the site and buildings and with neighboring properties.*

There is no signage associated with this project.

K. *Other public needs. Other public needs and requirements, including the provision of recreational facilities, the protection of the environment, etc., shall also be properly and adequately provided for.*

Not applicable. As noted above, this is not a public facility.

Instructions for Completing Part 1

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

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

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

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Veolia (formerly SUEZ) Water New York - New Haverstraw Tank		
Project Location (describe, and attach a general location map): 83 Halley Dr., Pomona, NY		
Brief Description of Proposed Action (include purpose or need): Veolia (formerly SUEZ) Water New York plans to install a new 2 million gallon water storage tank at 83 Halley Drive, Pomona, NY for additional water storage to better manage peak demands and improve system hydraulics. The work will also allow the adjacent 5 million gallon to be taken down for needed repairs. The proposed project involves installing a new 2 million gallon tank, a new pre-fabricated metering and chlorination building, and installing associated piping and valves. Associated site work, electrical, plumbing, and HVAC required for the building operation are included in the project.		
Name of Applicant/Sponsor: Veolia Water New York - Steven R. Garabed, P.E., Manager of Engineering	Telephone: 845-620-3319 E-Mail: steven.garabed@veolia.com	
Address: 162 Old Mill Road		
City/PO: West Nyack	State: NY	Zip Code: 10994
Project Contact (if not same as sponsor; give name and title/role): Gary Stuart, P.E. (Project Manager, CDM Smith)	Telephone: 518-782-4520 E-Mail: stuartgr@cdmsmith.com	
Address: 11 British American Boulevard		
City/PO: Latham	State: NY	Zip Code: 12110
Property Owner (if not same as sponsor): Christopher Graziano, Vice President & General Manager, Veolia Water New York	Telephone: 845-620-3352 E-Mail: christopher.graziano@veolia.com	
Address: 162 Old Mill Road		
City/PO: West Nyack	State: NY	Zip Code: 10994

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☑Yes ☐No	Pomona Village Board of Trustees Special Use Permit	August 2021 (A)
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Pomona Planning Board Site Plan Approval	August 2021 (A)
c. City, Town or Village Zoning Board of Appeals ☑Yes ☐No	Pomona ZBA Approval of Variances	March 2023 (P)
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Rockland County DOH	August 2021 (A)
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	SHPO/NYSDEC	November 2019 (A)/November 2019 (A)
h. Federal agencies ☐Yes ☐No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes ☑No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? East Ramapo

b. What police or other public protection forces serve the project site?
Town of Haverstraw Police Department

c. Which fire protection and emergency medical services serve the project site?
Hillcrest-Moleston Fire District

d. What parks serve the project site?
N/A

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Public Utility

b. a. Total acreage of the site of the proposed action? 4.93 acres
b. Total acreage to be physically disturbed? 1.33 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 4.96 acres

c. Is the proposed action an expansion of an existing project or use? ☑ Yes ☐ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % 40 Units: million gallons

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: 53'-4" height; 105'-0" width; and 105'-0" length

iii. Approximate extent of building space to be heated or cooled: 226 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes ☑No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.36 acres (impervious surface)

_____ Square feet or 4.93 acres (parcel size)

ii. Describe types of new point sources. Stormwater runoff collected into catch basins, discharged into new bioretention area and retention ponds

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Runoff will be directed on on-site bioretention area and two retention ponds.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Biweekly delivery for chemical

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Standard construction vehicles such as dump truck, backhoe

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

_____

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

10 KVA/day, therefore 3,650 KVA/year

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

Electrical will be taken from grid, via a local service.

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7:00AM - 5:00PM
- Saturday: 7:00AM - 5:00PM
- Sunday: NA
- Holidays: NA

ii. During Operations:

- Monday - Friday: 24/7
- Saturday: 24/7
- Sunday: 24/7
- Holidays: 24/7

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Potential for ambient noise levels to be exceeded during construction.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Tree removal necessary for storage tank location.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Outdoor pack lighting with emergency flood lighting.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Tree removal necessary for storage tank location.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

_____

_____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

_____

_____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

_____

_____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

_____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

_____

_____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)

☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.72	1.08	+0.36
• Forested	3.76	2.33	-1.43
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.45	1.52	+1.07
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 9.75 feet

b. Are there bedrock outcroppings on the project site? ☑ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? <1 %

c. Predominant soil type(s) present on project site:

Paxton Fine Sandy Loam	100 %
	%
	%

d. What is the average depth to the water table on the project site? Average: >27 feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	% of site
☐	Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	90 % of site
☑	10-15%:	5 % of site
☑	15% or greater:	5 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Principal Aquifer, Primary Aquifer, Sole Source Aquifer Name: Ramapo SSA

m. Identify the predominant wildlife species that occupy or use the project site:
Small mammals Song birds

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:
i. Species and listing (endangered or threatened):
Northern Long-eared Bat

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Steven R. Garabed Date January 11, 2023

Signature Steven R Garabed Digitally signed by Steven R Garabed Date: 2023.01.12 09:47:08 -05'00' Title Manager of Engineering

PRINT FORM

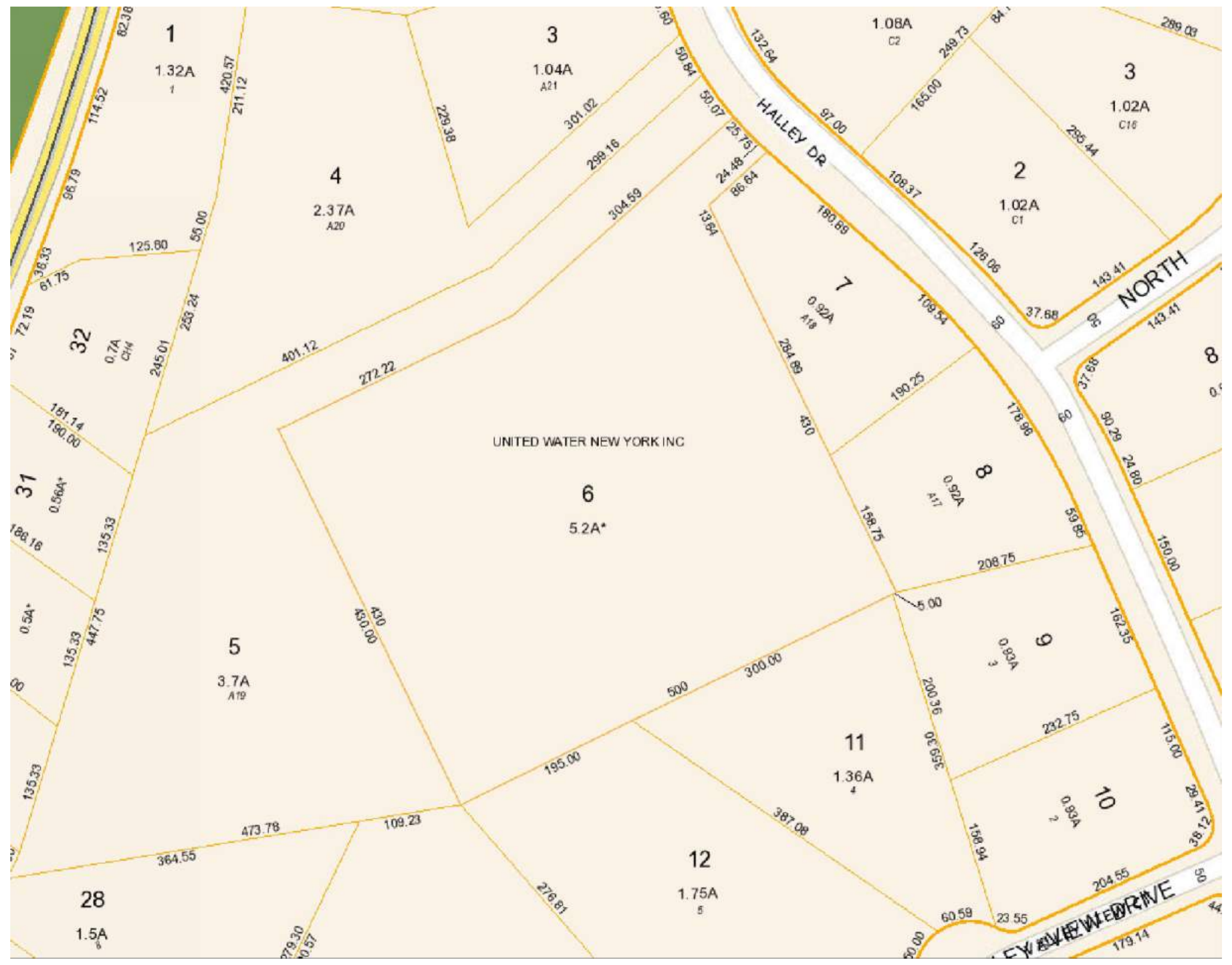
EAF Mapper Summary Report

Tuesday, July 13, 2021 3:57 PM

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

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer, Primary Aquifer, Sole Source Aquifer Names:Ramapo SSA
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

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



KEY MAP

NOT TO SCALE

SUEZ WATER NEW YORK

WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

POMONA, NEW YORK

PERMIT SUBMITTAL
REVISED APRIL 2023

PROPOSED PROJECT AREA

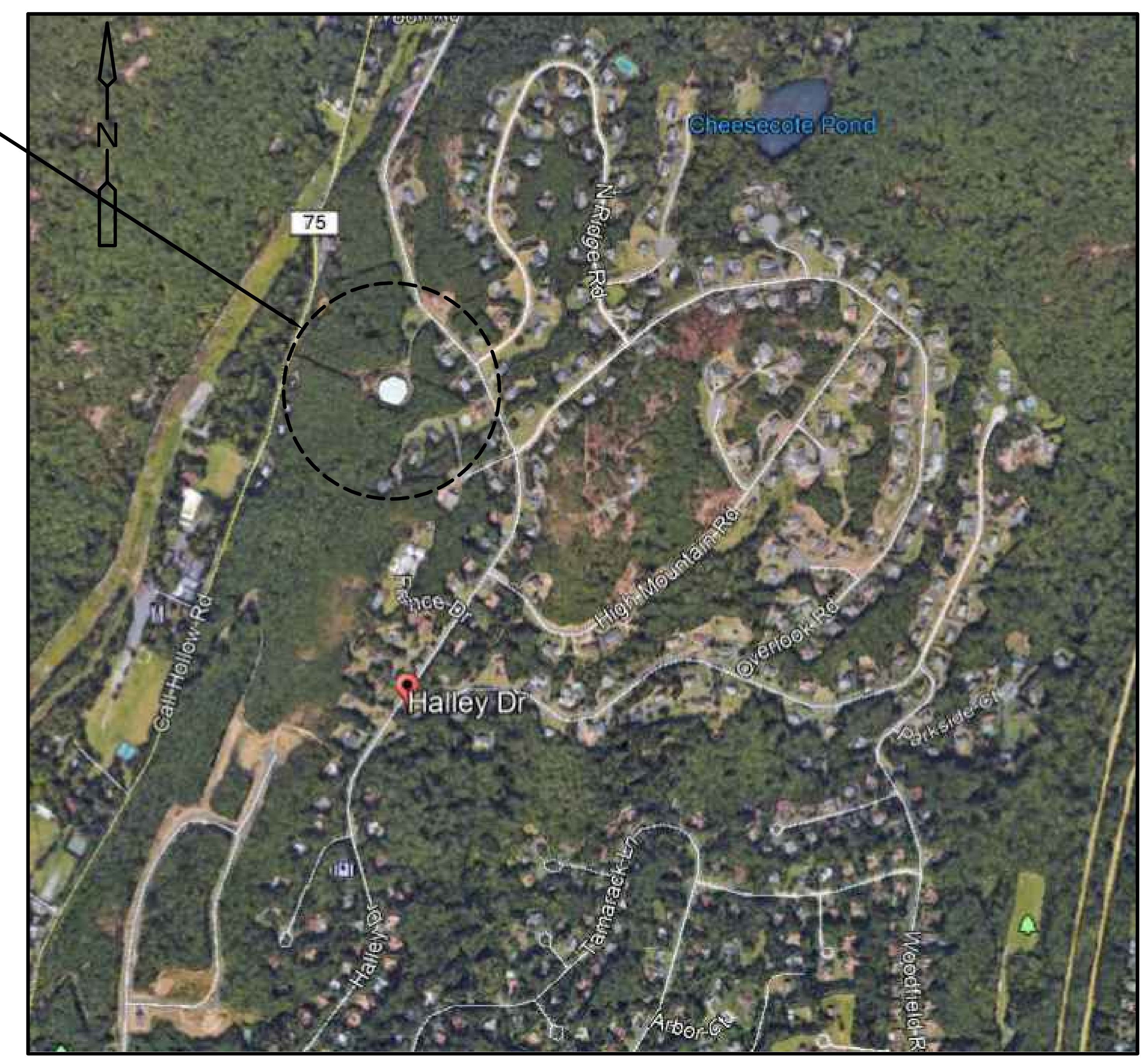


IMAGE OBTAINED FROM GOOGLE EARTH PRO MARCH 2019

LOCATION MAP

NOT TO SCALE

WARNING:
IT IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER IN ANY WAY PLANS, SPECIFICATIONS, PLATES OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER OR SURVEYOR HAS BEEN ATTACHED.

DRAWING INDEX

VEOLIA

CDM Smith

CAMP DRESSER McKEE & SMITH - LATHAM, NEW YORK

Water *Environment* *Transportation* *Energy* *Facilities*

250197–223550

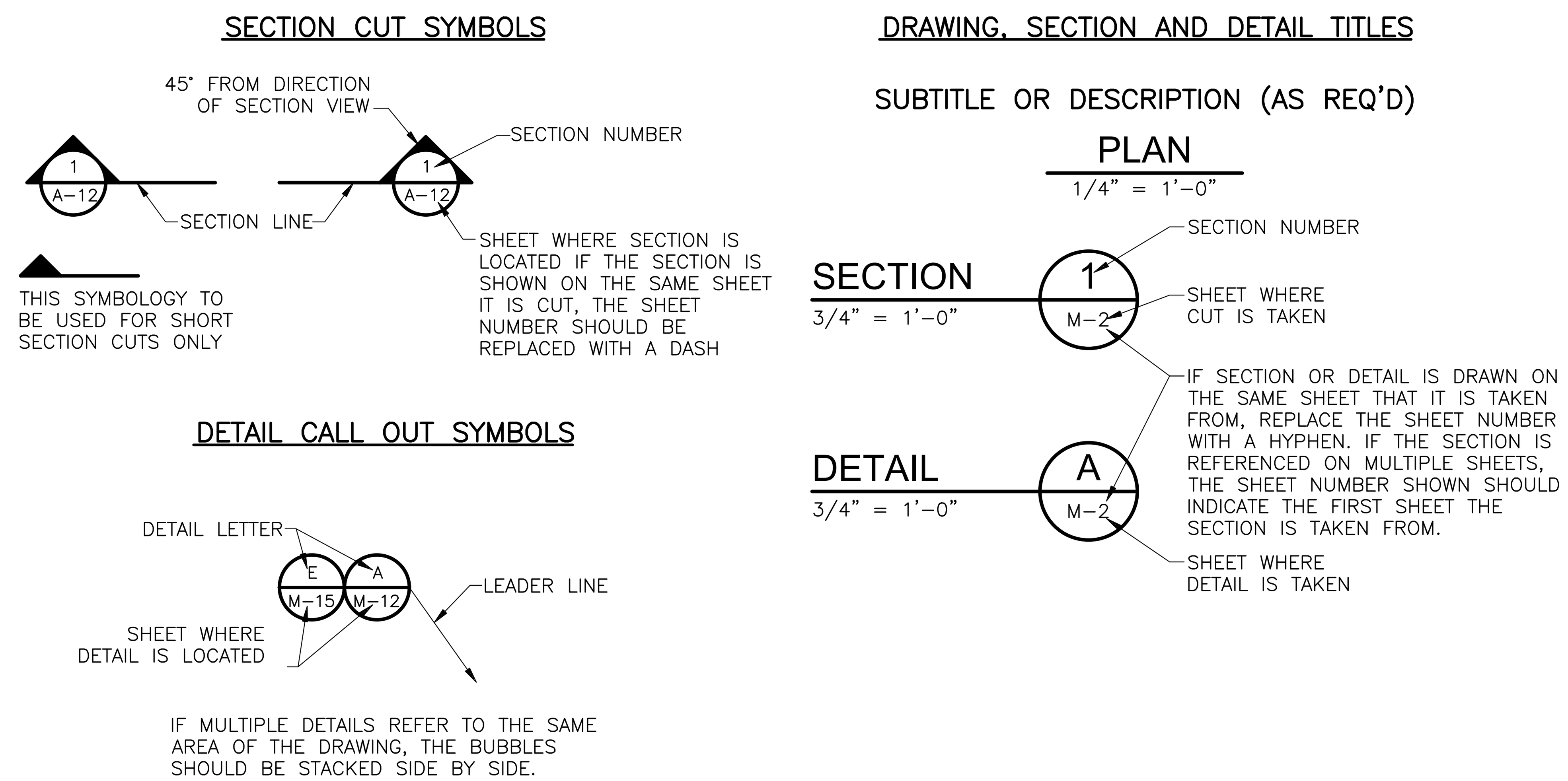
LEGEND

Symbol		Symbol		Line	
	CONIFEROUS BUSH		TELEPHONE MANHOLE		PROPERTY LINE
	DECIDUOUS BUSH		TELEVISION MANHOLE		ADJOINING PROPERTY LINE
	CONIFEROUS TREE		TRAFFIC MANHOLE		INDEX CONTOUR LINE
	DECIDUOUS TREE	W	EXIST WATER LINE		CONTOUR LINE
	CATCH BASIN/DRAINAGE INLET	SS	EXIST SANITARY SEWER	X	CHAIN LINK FENCE
	GAS METER	G	EXIST GAS LINE		CURB LINE
	GAS VALVE	SD	EXIST STORM DRAIN		EDGE OF CONCRETE
	ELECTRIC METER	OT	OVERHEAD TELEPHONE		EDGE OF PAVEMENT
	ELECTRIC BOX			OHW	OVERHEAD WIRES
	CABLE TV BOX		THRUST BLOCK	SD	STORM SEWER
	FIRE CALL BOX		WATER MANHOLE	W	WATER (UNDERGROUND)
	TELEPHONE BOX		UTILITY MANHOLE		
	TRAFFIC SIGNAL BOX		GUY POLE		
	POLICE CALL BOX		GUY ANCHOR		
	UTILITY BOX		LIGHT POLE		
	UNKNOWN BOX		POLE		
	CABINET	TS	TRAFFIC POST		
	SEWER CLEAN OUT		ELECTRIC PULLBOX		
	STORM SEWER MANHOLE		UTILITY POLE		
	ELECTRIC MANHOLE		LAMP		
	FIRE MANHOLE		HYDRANT		
	GAS MANHOLE	HV	HYDRANT VALVE		
	POLICE MANHOLE	WV	WATER VALVE		
	SANITARY SEWER MANHOLE		UNKNOWN MANHOLE		
	PUMP	449.38	SPOT ELEVATION		
SPR	SPRINKLER		IRON PIPE FOUND		
	VALVE		IRON ROD FOUND		
VP	VENT PIPE		MONUMENT		
OF	OIL FILL		CURB INLET		
	TRANSFORMER	MB	MAILBOX		
	SIGN				
PM	PARKING METER				
FP	FLAGPOLE		K-CRETE ENCASEMENT		
	POST OR BOLLARD	N	NORTH ARROW		

ABBREVIATIONS

AC	ASBESTOS CEMENT	LPCI	LOW PRESSURE CAST IRON
AOBE	AS ORDERED BY THE ENGINEER	MD	METAL DOOR
APPROX	APPROXIMATELY	N	NORTH
BB.C	BELGIAN BLOCK CURB	NAD	NORTH AMERICAN DATUM
BFV	BUTTERFLY VALVE	NAVD	NORTH AMERICAN VERTICAL DATUM
BS.SW.	BLUE STONE SIDEWALK	NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORTATION
C.C.	CONCRETE CURB	OD	OUTSIDE DIAMETER
CI	CAST IRON	PE	PLASTIC
CMP	CORRUGATED METAL PIPE	RED	REDUCER
C.N.O	COULD NOT OPEN	RCP	REINFORCED CONCRETE PIPE
CONC.	CONCRETE	S	SOUTH
C.S.W.	CONCRETE SIDEWALK	SD	STORM DRAIN
DIP	DUCTILE IRON PIPE	SS	SANITARY SEWER
DOH	DEPARTMENT OF HEALTH	ST	STEEL
E	EAST	STA	STATION
EXIST	EXISTING	TYP	TYPICAL
F.W.D	FILLED WITH DEBRIS	UE	UNDERGROUND ELECTRIC
G	GAS	W	WATER OR WEST
GIS	GEOGRAPHIC INFORMATION SYSTEM	WI	WROUGHT IRON
GRT	METAL GRATE	WV	WATER VALVE
GV	GAS VALVE		
INV.	INVERT		
LF	LINEAR FEET		

SYMBOLS



GENERAL NOTES

1. FIELD SURVEY PREPARED BY GARDELL LAND SURVEYING IN OCTOBER 2016. DATUM IS NAD83 (2011). NO CHANGES TO THE SITE HAVE OCCURRED SINCE SURVEY WAS COMPLETED.
2. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE WITH PROPOSED WORKING HOURS TO THE OWNER'S FIELD REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO ANY CONSTRUCTION AT THE SITE. THE FIELD REPRESENTATIVE SHALL COORDINATE SCHEDULE WITH APPLICABLE REGULATORY AGENCIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK, LANE CLOSURES AND DISRUPTIONS WITH GOVERNING AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN TO THE MUNICIPALITIES PRIOR TO STARTING WORK. PROPER TRAFFIC CONTROL MUST BE MAINTAINED THROUGHOUT THE PROJECT DURATION.
4. THE CONTRACTOR SHALL OBTAIN ALL OTHER ADDITIONAL PERMITS AND APPROVALS REQUIRED FOR THE CONSTRUCTION OF THE NEW WATER STORAGE TANK AND WATER MAIN CONNECTIONS. SUEZ WATER-OBTAINED PERMITS ARE LISTED IN THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SECURING AND REHABILITATING TEMPORARY STAGING, STORAGE AND/OR STOCKPILING AREAS, IF NEEDED, DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, SUEZ WATER, AND ALL UTILITIES PRIOR TO STARTING WORK.
7. REGULAR WORKING HOURS FOR THIS PROJECT ARE DEFINED AS MONDAY THROUGH FRIDAY BETWEEN THE HOURS OF 7:00 AM AND 5:00 PM UNLESS OTHERWISE STIPULATED BY THE ROAD OWNER.
8. FOR ALL WORK NEAR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL FOLLOW PROPER NOTIFICATION PROCEDURES INCLUDING CONTACTING THE STATE "ONE CALL" SYSTEM (DIG SAFE NY) BY CALLING 1-800-962-7962.
9. WORK INCLUDES CONNECTION OF NEW PIPING TO EXISTING PIPING. CONTRACTOR TO PERFORM TEST ITS AS NECESSARY TO VERIFY LOCATION OF EXISTING PIPING AT THESE POINTS.
10. THE CONTRACTOR SHALL SUPPORT EXISTING UTILITIES DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER AND THE RESPECTIVE UTILITY.
11. SILT FENCES SHALL BE INSTALLED PRIOR TO CLEARING AND TRENCHING WHERE SPECIFIED IN SECTION 01110 AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
12. CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS.
13. THE CONTRACTOR SHALL NOTIFY SUEZ WATER PRIOR TO CONNECTION TO OR RELOCATION OF ANY EXISTING SUEZ WATER-OWNED AND MAINTAINED FACILITIES. ALL CONNECTIONS AND MODIFICATIONS TO EXISTING FACILITIES SHALL BE DONE AT THE CONVENIENCE OF SUEZ WATER.
14. THE DRAWINGS INDICATE THE PRESENCE OF BENDS AS PART OF THE NEW INSTALLATION. BENDS ARE SHOWN TO INDICATE THE FACT THAT THE INSTALLATION WILL INCLUDE BENDS, BUT NOT TO INDICATE THE EXACT PLACEMENT OF BENDS. PRECISE LOCATION OF BENDS TO BE DETERMINED IN THE FIELD.
15. CONTRACTOR SHALL MAINTAIN A VERTICAL MINIMUM CLEARANCE OF 18 INCHES BETWEEN THE NEW WATER MAIN AND ALL OTHER EXISTING UTILITIES WHEN POSSIBLE. NEW WATER MAINS SHALL PASS UNDER ALL EXISTING UTILITIES EXCEPT SANITARY SEWERS UNLESS OTHERWISE SHOWN OR DIRECTED BY THE OWNER'S REPRESENTATIVE.
16. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER, WITH PREFERENCE TO THE WATER MAIN LOCATED ABOVE THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.
17. CONTRACTOR SHALL ENCASE NEW WATER MAIN IN K-CRETE WHEN PIPE IS WITHIN 10 FEET OF SANITARY OR STORM SEWER HORIZONTALLY OR CROSSES WITHIN 18 INCHES VERTICALLY.
18. THE CONTRACTOR SHALL BE AWARE THAT THE MAINS AND VALVES TO BE SHUT DOWN ARE OLD. AS SUCH, A WATERTIGHT SHUTDOWN CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE PREPARED TO UNDERTAKE MAIN ABANDONMENT OPERATIONS AND CONNECTIONS TO THE EXISTING MAINS IN WET CONDITIONS. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION IF EXISTING VALVES LEAK. THE CONTRACTOR SHALL PROVIDE THE NECESSARY PUMPING AND DEWATERING EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
19. ALL NEW WATER MAINS AND SERVICES SHALL HAVE A MINIMUM OF 4 FEET OF COVER, UNLESS OTHERWISE NOTED ON THE PLAN SHEETS OR DIRECTED BY THE OWNER'S REPRSENTATIVE.
20. THRUST BLOCKS SHALL BE INSTALLED ON ALL FITTINGS. PIPE JOINTS SHOWN TO BE RESTRAINED SHALL HAVE FIELD LOK GASKETS.
21. DURING EXCAVATIONS, THE CONTRACTOR SHALL, AS A MINIMUM, COMPLY WITH THE EXCAVATION SAFETY STANDARDS, PROVIDE SPECIAL SHORING (IF REQUIRED), AND PROVIDE COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) EXCAVATION SAFETY STANDARD 29 CFR 1926/650 (SUBPART B AS AMENDED).
22. TRENCH EXCAVATIONS NEAR STREAMS AND DRAINAGE SWALES SHALL BE DEWATERED USING SILTATION BAGS OR APPROVED EQUAL. CONTRACTOR SHALL NOT PUMP UNFILTERED WATER INTO STREAMS OR INTO STRUCTURES WHICH DISCHARGE TO A WATER BODY.
23. IF ASBESTOS IS ENCOUNTERED, ONLY ASBESTOS-CERTIFIED CONTRACTORS ARE TO PERFORM SERVICE TAPS ON ASBESTOS CEMENT PIPE. CONTRACTOR TO RETAIN AC PIPE TAP COUPON FOR VEOLIA WATER RECORD KEEPING PURPOSES.
24. CONTROL DENSITY BACKFILL SHALL BE PROVIDED WHEN EXISTING UTILITY LINES ARE UNDERMINED AND SELECTED BACKFILL CAN NOT BE PROPERLY PLACED.
25. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH HAVE OCCURRED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK. ITEMS SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED OR DAMAGED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
26. SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL EXCESS EXCAVATED MATERIAL TO AN APPROVED OFF-SITE LOCATION AT NO ADDITIONAL COST TO THE OWNER.
28. RESTORATION, INCLUDING THE REMOVAL OF EXCESS EXCAVATED MATERIAL AND PLACEMENT OF TEMPORARY PAVEMENT, SHALL BE PERFORMED AND COMPLETED ON A DAILY BASIS. ALL ROADS SHALL BE PASSABLE TO VEHICULAR TRAFFIC AT THE END OF EACH WORK DAY.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED. THESE SHALL BE PROVIDED TO OWNER.

OVERALL SEQUENCE OF CONSTRUCTION

1. SCHEDULE AND CONDUCT PRE-CONSTRUCTION MEETING WITH VILLAGE OF POMONA.
2. INSTALL SOIL EROSION AND CONTROL MEASURES.
3. CONSTRUCT NEW STORAGE TANK, METER BUILDING, METER VAULT, AND ASSOCIATED PIPING UP TO TIE-IN POINTS TO EXISTING WATER MAINS.
4. PERFORM ALL FLUSHING, TESTING, DISINFECTION, AND SAMPLING OF NEW STORAGE TANK, METER BUILDING, METER VAULT, AND NEW PIPING.
5. PERFORM STARTUP OF NEW EQUIPMENT AS APPLICABLE.
6. OBTAIN DEPARTMENT OF HEALTH APPROVAL TO OPERATE NEW SYSTEM.
7. PERFORM FINAL TIE-INS TO EXISTING WATER MAINS AND STARTUP UP NEW EQUIPMENT.
8. COMPLETE SITE RESTORATION AND LANDSCAPING INCLUDING REMOVAL OF SOIL EROSION AND CONTROL MEASURE.

PARCEL INFORMATION

ADDRESS	83 HALLEY DRIVE, POMONA, 10970
TOWN	HAVERSTRAW
VILLAGE	POMONA
TAX MAP DESIGNATION	25.05-1-6
OWNER OF RECORD	UNITED WATER NEW YORK INC (NOW VEOLIA WATER NEW YORK INC.)
APPLICANT	VEOLIA WATER NEW YORK INC.
FIRE DISTRICT	HILLCREST-MOLESTON
SCHOOL DISTRICT	EAST RAMAPO
WATER DISTRICT	VEOLIA
SEWER DISTRICT	

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith

Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

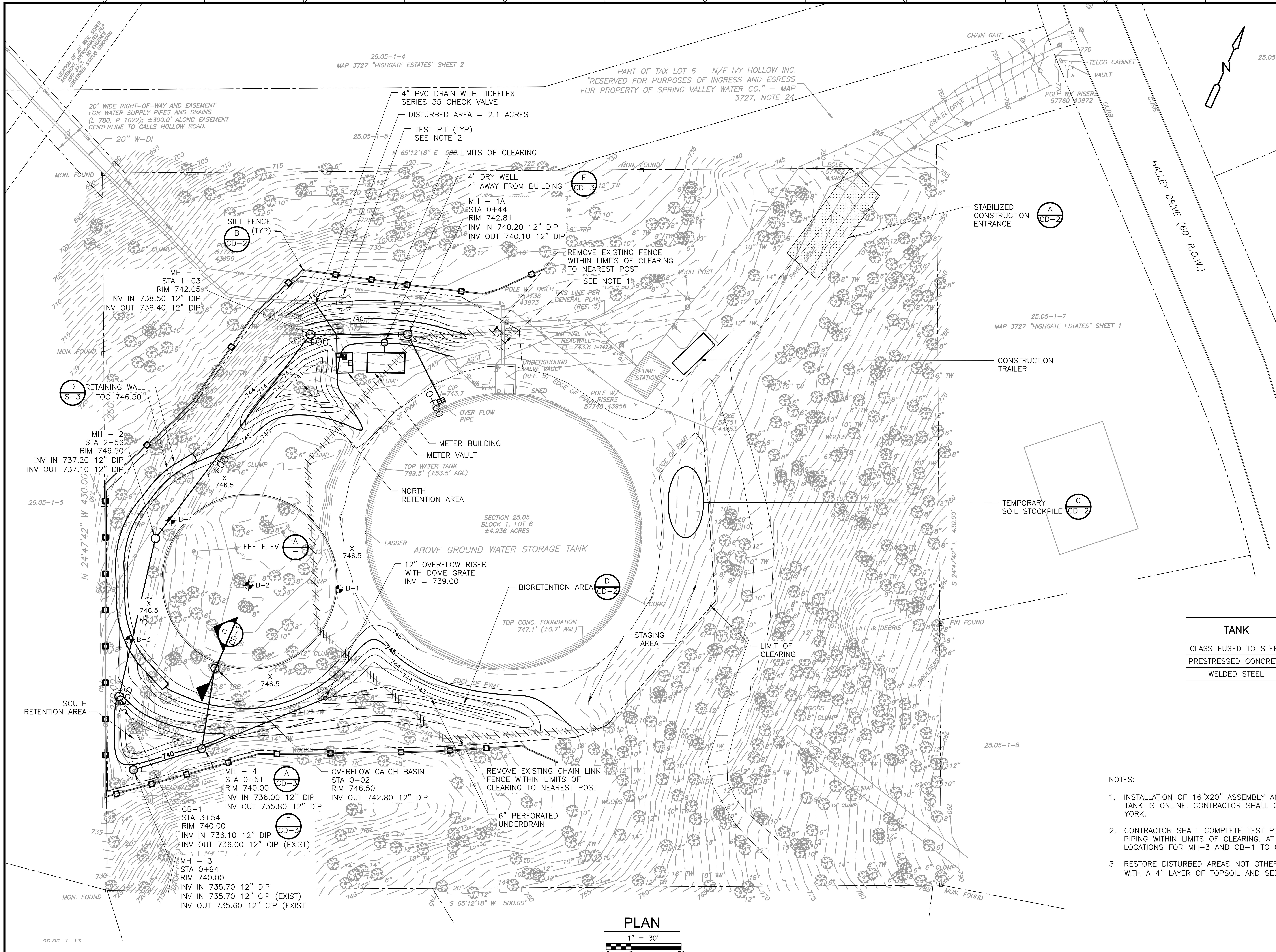
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

LEGEND, ABBREVIATIONS, SYMBOLS AND GENERAL NOTES

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: G001NFLG

SHEET NO. G-1



TANK	FF ELEVATION	OVERFLOW ELEVATION
GLASS FUSED TO STEEL	746.6	777.4
PRESTRESSED CONCRETE	745.6	777.4
WELDED STEEL	746.6	777.4

TANK ELEVATION TABLE

DETAIL A –

NOTES:

1. INSTALLATION OF 16"X20" ASSEMBLY AND 20" LINE STOP CANNOT OCCUR UNTIL NEW 2 MG TANK IS ONLINE. CONTRACTOR SHALL COORDINATE THE WORK WITH SUEZ WATER NEW YORK.

2. CONTRACTOR SHALL COMPLETE TEST PITS AS NEEDED TO CONFIRM THE DEPTH OF EXISTING PIPING WITHIN LIMITS OF CLEARING. AT A MINIMUM, COMPLETE TEST PITS AT PROPOSED LOCATIONS FOR MH-3 AND CB-1 TO CONFIRM INVERT OF EXISTING DRAINAGE PIPING.

3. RESTORE DISTURBED AREAS NOT OTHERWISE FINISHED WITH ASPHALT, CONCRETE OR STONE WITH A 4" LAYER OF TOPSOIL AND SEED IN ACCORDANCE WITH THE SPECIFICATIONS.

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
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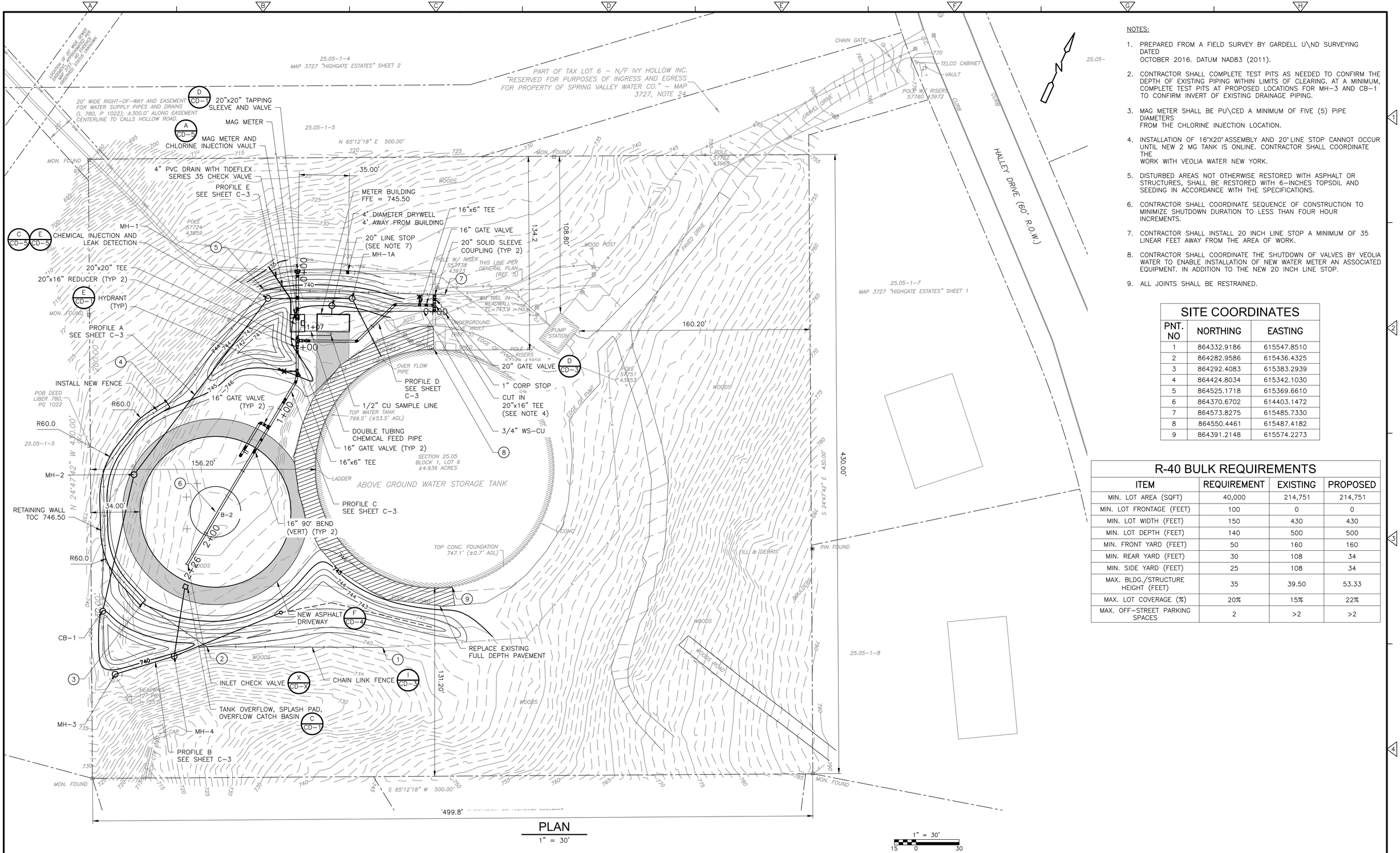
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

CLEARING, GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTPL001

SHEET NO.
C-1



PLAN
1" = 30'

1" = 30'
15 0 30

NOTES:

1. PREPARED FROM A FIELD SURVEY BY GARDELL U\ND SURVEYING DATED OCTOBER 2016. DATUM NAD83 (2011).
2. CONTRACTOR SHALL COMPLETE TEST PITS AS NEEDED TO CONFIRM THE DEPTH OF EXISTING PIPING WITHIN LIMITS OF CLEARING. AT A MINIMUM, COMPLETE TEST PITS AT PROPOSED LOCATIONS FOR MH-3 AND CB-1 TO CONFIRM INVERT OF EXISTING DRAINAGE PIPING.
3. MAG METER SHALL BE PU\CED A MINIMUM OF FIVE (5) PIPE DIAMETERS FROM THE CHLORINE INJECTION LOCATION.
4. INSTALLATION OF 16"X20" ASSEMBLY AND 20" LINE STOP CANNOT OCCUR UNTIL NEW 2 MG TANK IS ONLINE. CONTRACTOR SHALL COORDINATE THE WORK WITH VEOLIA WATER NEW YORK.
5. DISTURBED AREAS NOT OTHERWISE RESTORED WITH ASPHALT OR STRUCTURES, SHALL BE RESTORED WITH 6-INCHES TOPSOIL AND SEEDING IN ACCORDANCE WITH THE SPECIFICATIONS.
6. CONTRACTOR SHALL COORDINATE SEQUENCE OF CONSTRUCTION TO MINIMIZE SHUTDOWN DURATION TO LESS THAN FOUR HOUR INCREMENTS.
7. CONTRACTOR SHALL INSTALL 20 INCH LINE STOP A MINIMUM OF 35 LINEAR FEET AWAY FROM THE AREA OF WORK.
8. CONTRACTOR SHALL COORDINATE THE SHUTDOWN OF VALVES BY VEOLIA WATER TO ENABLE INSTALLATION OF NEW WATER METER AN ASSOCIATED EQUIPMENT. IN ADDITION TO THE NEW 20 INCH LINE STOP.
9. ALL JOINTS SHALL BE RESTRAINED.

SITE COORDINATES

PNT. NO	NORTHING	EASTING
1	864332.9186	615547.8510
2	864282.9586	615436.4325
3	864292.4083	615383.2939
4	864424.8034	615342.1030
5	864525.1718	615369.6610
6	864370.6702	614403.1472
7	864573.8275	615485.7330
8	864550.4461	615487.4182
9	864391.2148	615574.2273

R-40 BULK REQUIREMENTS

ITEM	REQUIREMENT	EXISTING	PROPOSED
MIN. LOT AREA (SQFT)	40,000	214,751	214,751
MIN. LOT FRONTAGE (FEET)	100	0	0
MIN. LOT WIDTH (FEET)	150	430	430
MIN. LOT DEPTH (FEET)	140	500	500
MIN. FRONT YARD (FEET)	50	160	160
MIN. REAR YARD (FEET)	30	108	34
MIN. SIDE YARD (FEET)	25	108	34
MAX. BLDG./STRUCTURE HEIGHT (FEET)	35	39.50	53.33
MAX. LOT COVERAGE (%)	20%	15%	22%
MAX. OFF-STREET PARKING SPACES	2	>2	>2

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED REGULATORY REVIEW COMMENTS

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

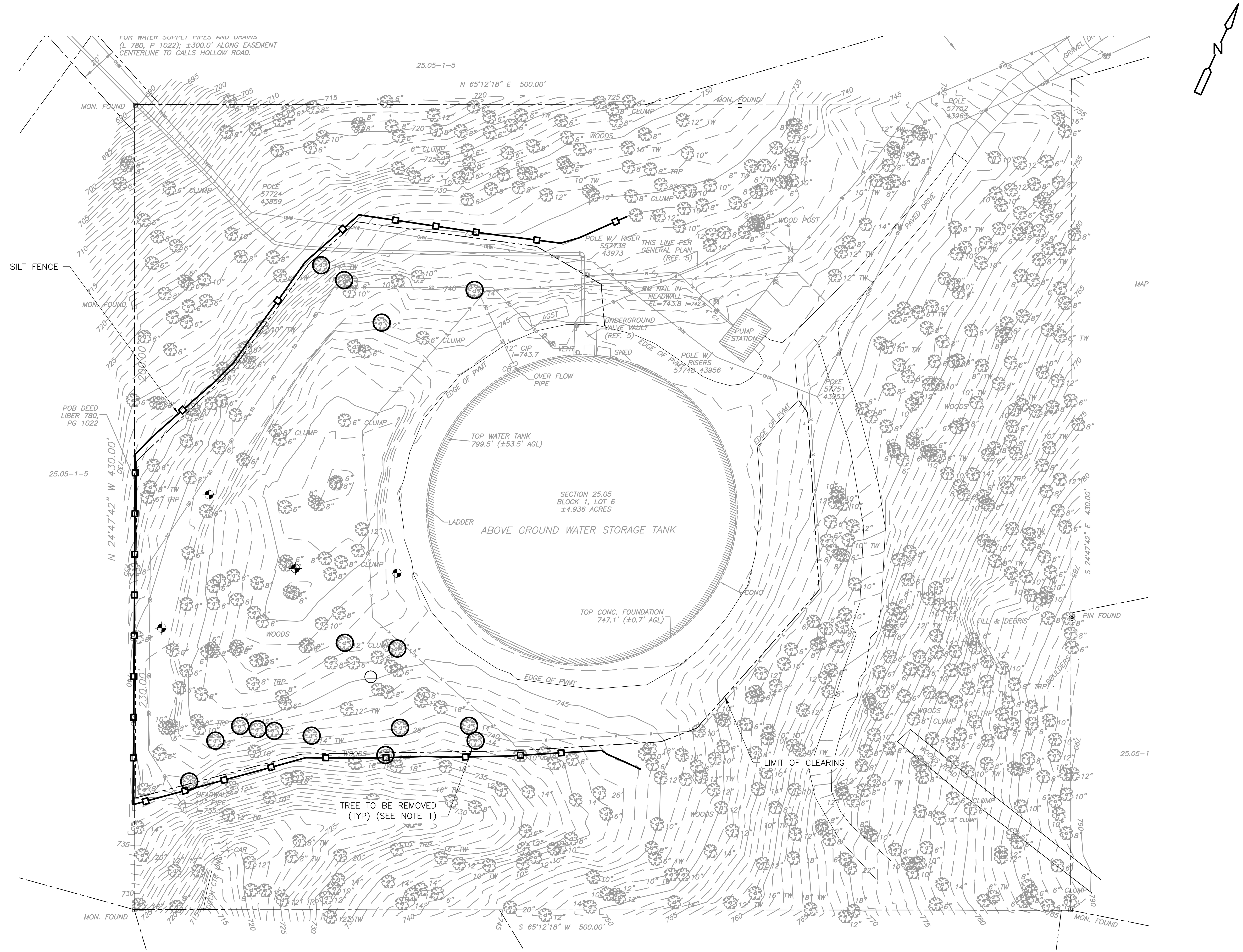
YARD PIPING PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTPL002

SHEET NO.
C-2

NOTES:

1. ALL TREES WITHIN THE LIMITS OF CLEARING SHALL BE REMOVED.EXISTING TREES OVER 11" IN DIAMETER ARE CIRCLED.



PLAN

1" = 30'

1" = 30'
15 0 30

1	11/22	RWH	GRS	REVISED BASED REGULATORY REVIEW COMMENTS
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

TREE REMOVAL PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTPL02A

SHEET NO.
C-2A

XREFs: [CDMS_2234, RCSTBP01, RCSTPL01] Images: []
Last saved by: GENCORELLIRJ Time: 4/13/2023 3:01:25 PM
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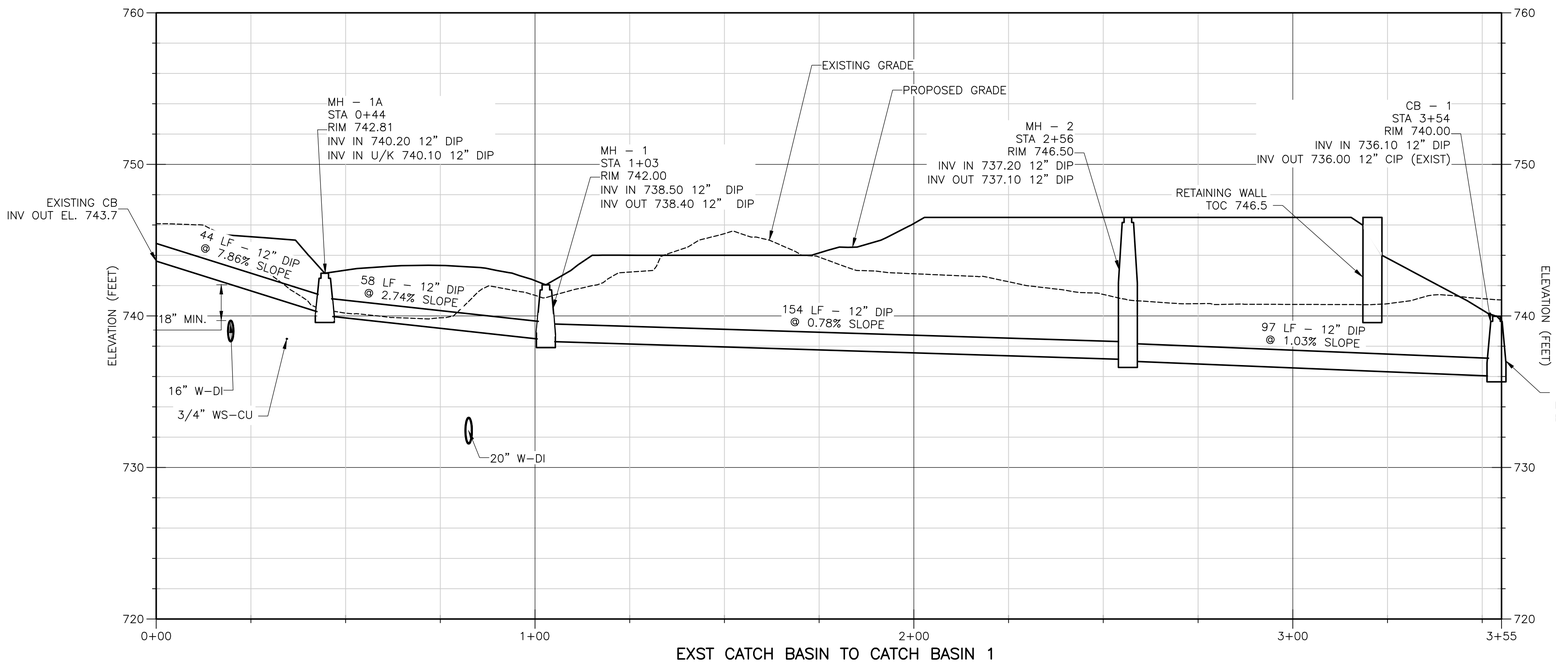
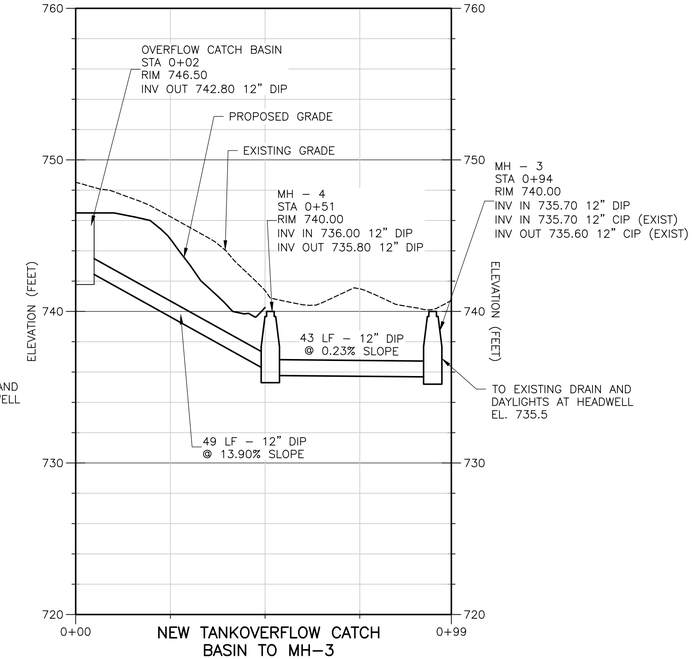


EXST CATCH BASIN TO CATCH BASIN 1

PROFILE A

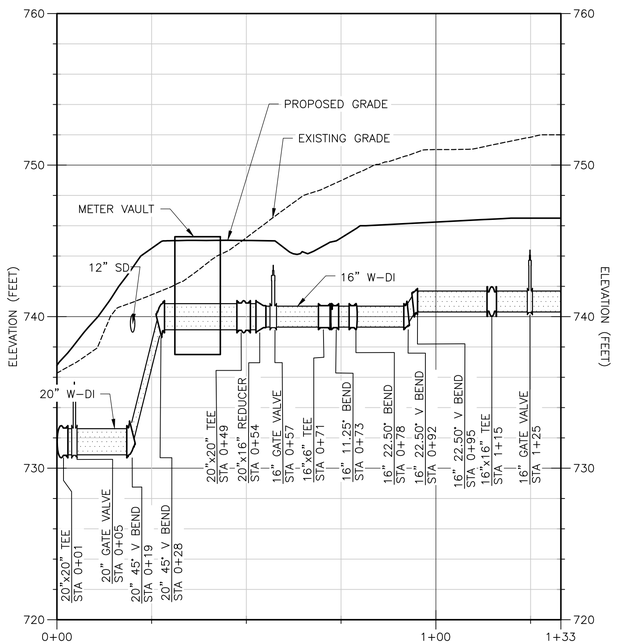
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



NEW TANKOVERFLOW CATCH BASIN TO MH–3

PROFILE B

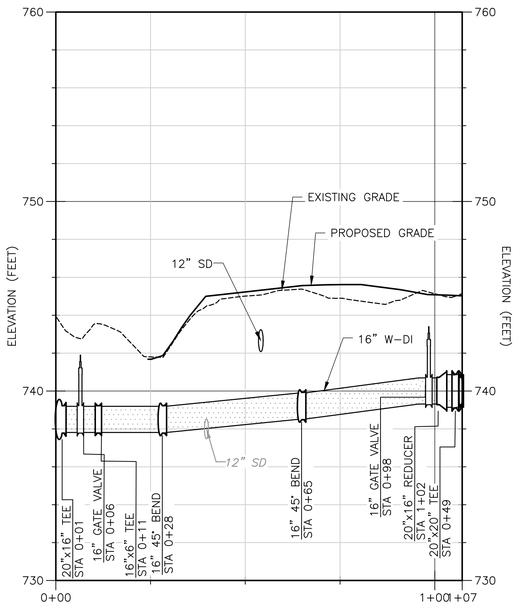
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



20" AND 16" W–DIP

PROFILE C

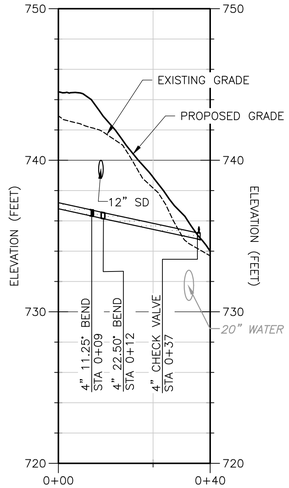
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



20" AND 16" W–DIP

PROFILE D

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



4" PVC DRAIN

PROFILE E

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

1" = 20'
10 0 20

1" = 5'
2.5 0 5

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

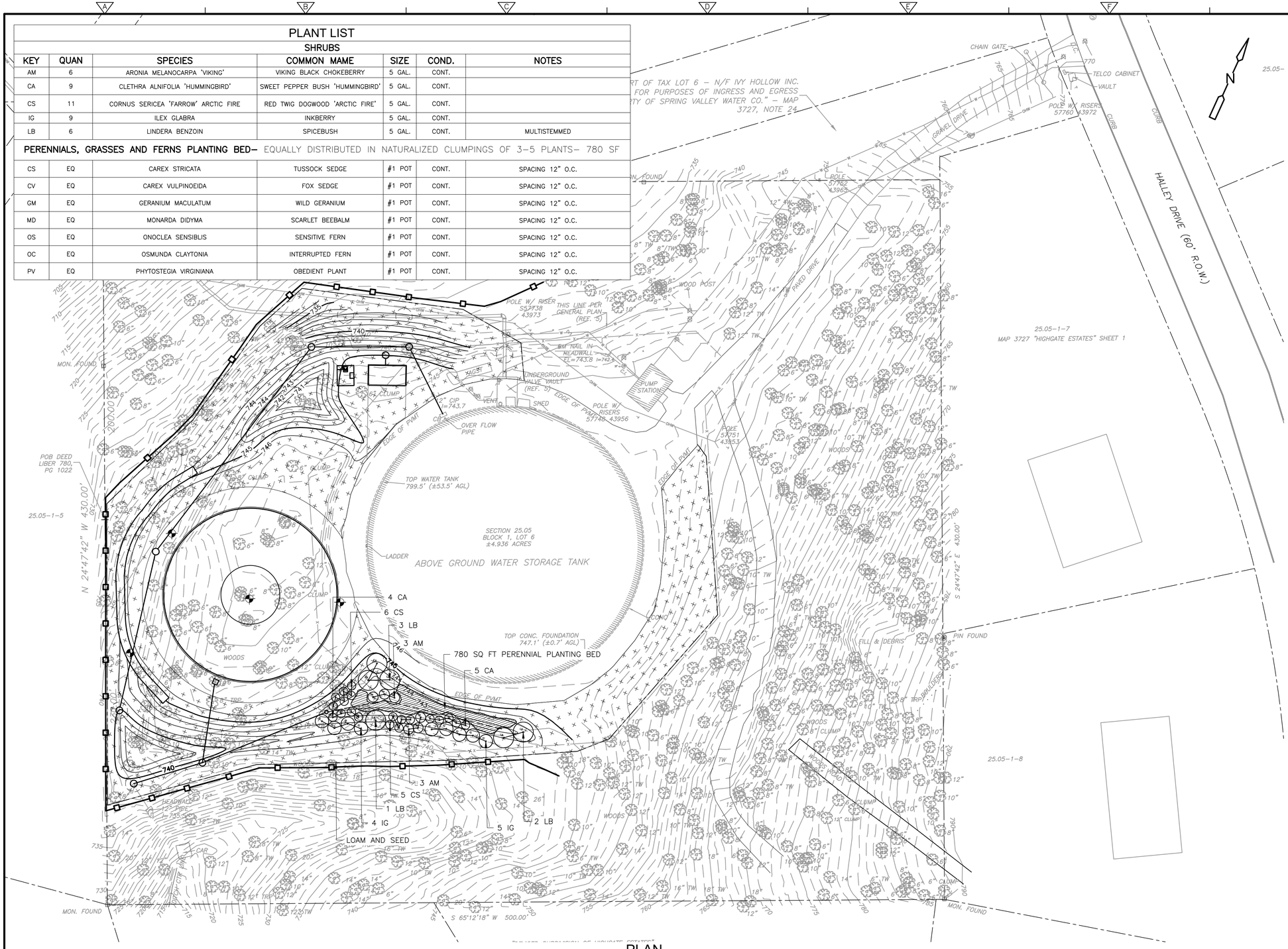
NEW HAVERSTRAW TANK

DRAINAGE PROFILES

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: CSTPL003

SHEET NO.
C-3

PLANT LIST						
SHRUBS						
KEY	**QUAN**	**SPECIES**	**COMMON MAME**	**SIZE**	**COND.**	**NOTES**
AM	6	ARONIA MELANOCARPA 'VIKING'	VIKING BLACK CHOKEBERRY	5 GAL.	CONT.	
CA	9	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SWEET PEPPER BUSH 'HUMMINGBIRD'	5 GAL.	CONT.	
CS	11	CORNUS SERICEA 'FARROW' ARCTIC FIRE	RED TWIG DOGWOOD 'ARCTIC FIRE'	5 GAL.	CONT.	
IG	9	ILEX GLABRA	INKBERRY	5 GAL.	CONT.	
LB	6	LINDERA BENZOIN	SPICEBUSH	5 GAL.	CONT.	MULTISTEMMED
PERENNIALS, GRASSES AND FERNS PLANTING BED– EQUALLY DISTRIBUTED IN NATURALIZED CLUMPINGS OF 3–5 PLANTS– 780 SF						
CS	EQ	CAREX STRICATA	TUSSOCK SEDGE	#1 POT	CONT.	SPACING 12" O.C.
CV	EQ	CAREX VULPINOEIDA	FOX SEDGE	#1 POT	CONT.	SPACING 12" O.C.
GM	EQ	GERANIUM MACULATUM	WILD GERANIUM	#1 POT	CONT.	SPACING 12" O.C.
MD	EQ	MONARDA DIDYMA	SCARLET BEEBALM	#1 POT	CONT.	SPACING 12" O.C.
OS	EQ	ONOCLEA SENSIBLIS	SENSITIVE FERN	#1 POT	CONT.	SPACING 12" O.C.
OC	EQ	OSMUNDA CLAYTONIA	INTERRUPTED FERN	#1 POT	CONT.	SPACING 12" O.C.
PV	EQ	PHYTOSTEGIA VIRGINIANA	OBEDIENT PLANT	#1 POT	CONT.	SPACING 12" O.C.



PLAN
1" = 30'

LANDSCAPE NOTES:

1. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES AND NOTIFY CLIENT OF CONFLICTS.
2. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND PAVEMENT CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
3. A 3–INCH DEEP SHREDDED PINE BARK SHALL BE INSTALLED UNDER ALL SHRUBS, AND IN ALL PLANTING BEDS, AS SHOWN ON THE PLANS, OR AS DIRECTED BY CLIENT.
4. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND PLANT LABELS PRIOR TO BIDDING.
5. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE CLIENT.
6. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
7. ALL PLANT MATERIALS SHALL BE MAINTAINED AND GUARANTEED AS SPECIFIED.
8. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO OTHER CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

PLANT MAINTENANCE NOTES:

1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE PLANTINGS AS SPECIFIED. THE CONTRACTOR SHALL SUPPLY TEMPORARY WATERING FOR PLANTINGS DURING THE PLANT MAINTENANCE AND GUARANTEE PERIOD, IF IRRIGATION ALTERNATE IS NOT SELECTED.
2. WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER CAN BE PURCHASED FROM THE TOWN.
4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
5. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS DURING AND AT THE END OF THE MAINTENANCE AND GUARANTEE PERIOD.

LEGEND:

- PERENNIAL PLANTING BED
- LOAM AND SEED
- SHRUB

1" = 30'
15 0 30

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: A. CARRANO
DRAWN BY: A. CARRANO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

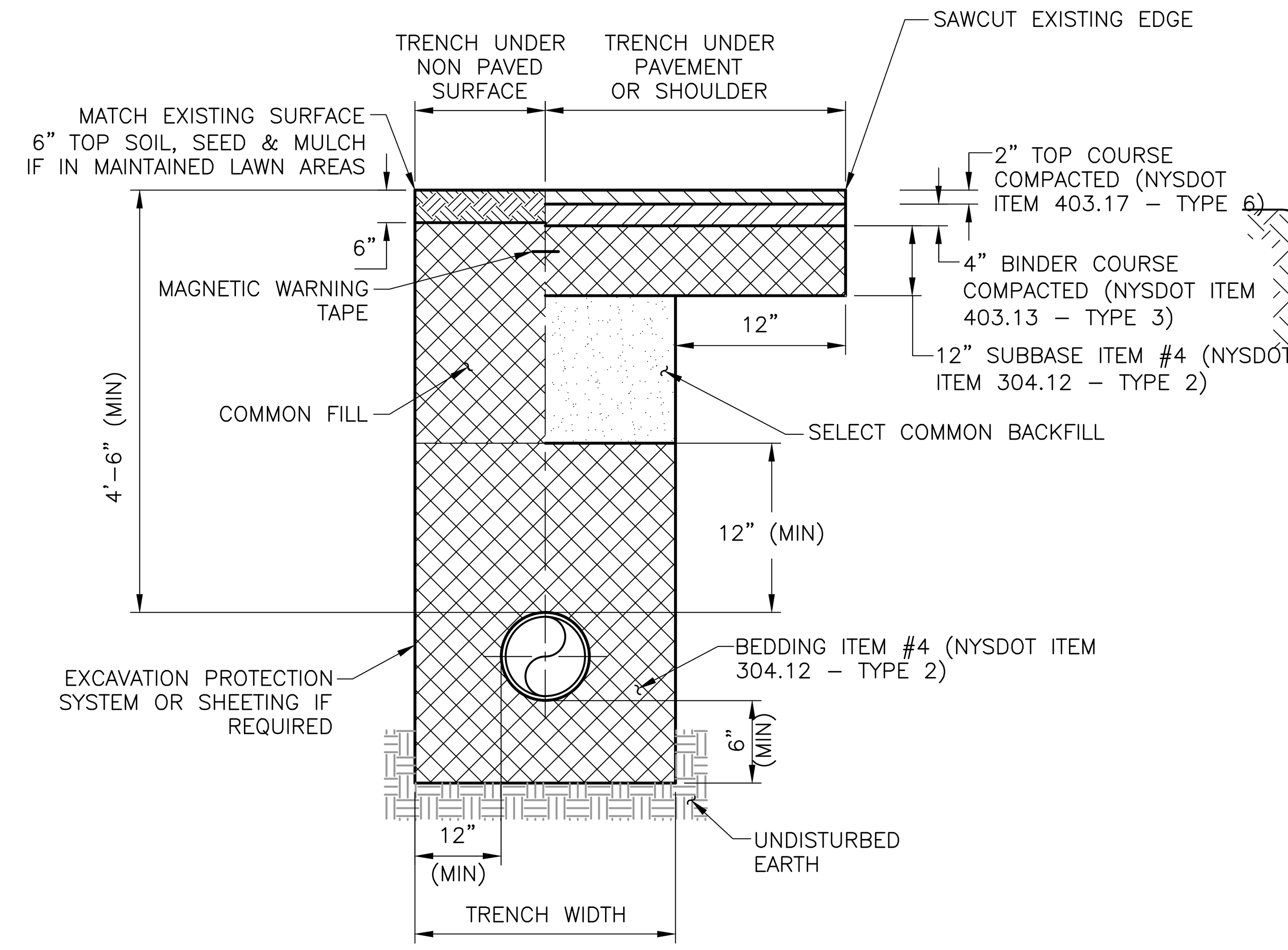
LANDSCAPING PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: CSTPL004

SHEET NO.
C-4

CIVIL DETAIL NOTES:

1. ALL DUCTILE IRON WATER MAIN SHALL CONFORM TO AWWA SPECIFICATION, C151/A21.51–91, OR LATEST REVISION.
2. THE INSTALLATION OF ALL DUCTILE IRON WATER MAIN SHALL CONFORM TO AWWA SPECIFICATION C600–05, OR LATEST REVISION.
3. ALL WATER MAIN FITTINGS SHALL MEET AWWA SPECIFICATION C153/A21.53–06, OR LATEST REVISION.
4. ALL WATER MAIN SHALL BE SUBJECTED TO MINIMUM HYDROSTATIC TEST OF 150 PERCENT OF THE WORKING PRESSURE IN THE PROJECT AREA FOR A PERIOD OF 2 HOURS AND IN ACCORDANCE WITH AWWA SPECIFICATION C600–05, OR LATEST REVISION. THE PRESSURE TEST SHALL BE MADE IN THE PRESENCE OF A SUEZ WATER REPRESENTATIVE AND A REPRESENTATIVE OF THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH, 48 HOURS NOTICE SHALL BE GIVEN TO THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH SO ARRANGEMENTS CAN BE MADE FOR THE REPRESENTATIVE TO WITNESS THE TEST.
5. ALL WATER MAIN SHALL BE DISINFECTED AS DESCRIBED IN SHEET G–1 AND SHALL CONFORM TO AWWA C–651–05 OR LATEST REVISION, EXCEPT THAT C–651: SECTION 4.4.2; THE TABLET METHOD SHALL NOT BE UTILIZED, DISINFECTION WILL BE ACCOMPLISHED BY MEANS OF A POSITIVE DISPLACEMENT HYPOCHLORITE PUMP OR A GAS CHLORINATOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING 2" CORPORATION VALVES AS FOLLOWS:
   A) AT A LOCATION LESS THAN 10 FEET FROM THE BEGINNING OF THE NEW MAIN FOR DISINFECTION PURPOSES, AND
   B) AS REQUIRED FOR PROPER DISINFECTION AND PRESSURE TESTING BASED UPON SUEZ WATER WESTCHESTER AND WESTCHESTER COUNTY DEPARTMENT OF HEALTH REQUIREMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF BRASS WEDGES AT EACH JOINT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE FOR THE DURATION OF THE PROJECT: FLAGMEN, BARRICADES, SIGNS, ETC., FOR THE SAFE AND SMOOTH PASSAGE OF TRAFFIC IN THE PROJECT AREA.
9. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE EXISTENCE OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES IN THE PROJECT AREA.
10. SUEZ WATER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH, UNLESS OTHERWISE SPECIFIED.
11. NO POTENTIALLY SUBSTANTIAL LARGE (15 FEET TALL OR 6 IN DIAMETER) TREES SHALL BE PLANTED WITHIN FIFTEEN (15) FEET OF ANY WATER MAIN OR FIRE HYDRANT AND NO ORNAMENTAL TREES SHALL BE PLANTED WITHIN TEN (10) FEET OF ANY WATER MAIN OR FIRE HYDRANT.
12. THE CONTRACTOR SHALL NOT PLACE ANY JOINTS WITHIN 10' OF ANY STORM OR SANITARY SEWER CROSSINGS.



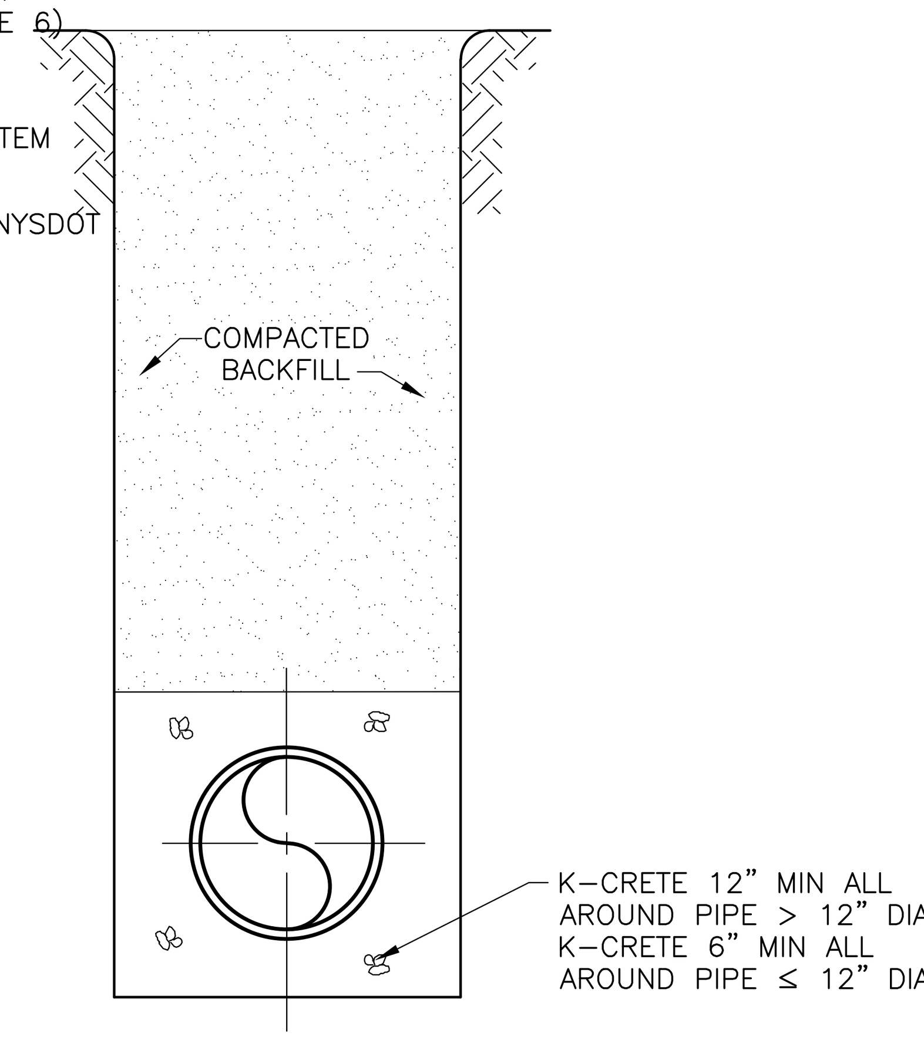
TRENCH (TOWN ROAD) NOTES:

1. TRIM LOOSE EDGES OF PAVEMENT BETWEEN COURSES. BROOM AND TACK COAT ALL EDGES WITH EMULSIFIER.
2. WHERE CONCRETE BASE COURSE IS IDENTIFIED, IT WILL BE REPLACED WITH CLASS A CONCRETE (3,000 PSI AT 28 DAYS) TO ITS ORIGINAL DEPTH.
3. STEEL PLATES MUST BE MAINTAINED AT ALL TIMES OVER THE TRENCHES UNTIL BACKFILL HAS BEEN COMPLETED; INCLUDING WHEN THE EXCAVATION IS MADE FOR THE CONCRETE PLUG.
4. PAY LIMITS FOR PAVEMENT RESTORATION ARE FROM CURB TO CURB.
5. ALL EXPOSED EDGES, SUCH AS DRIVEWAYS INTERSECTIONS, ETC. SHALL BE TACK COATED WITH RC–250 TO EXISTING ASPHALT.

TRENCH (TOWN ROAD)

DETAIL A –

NTS



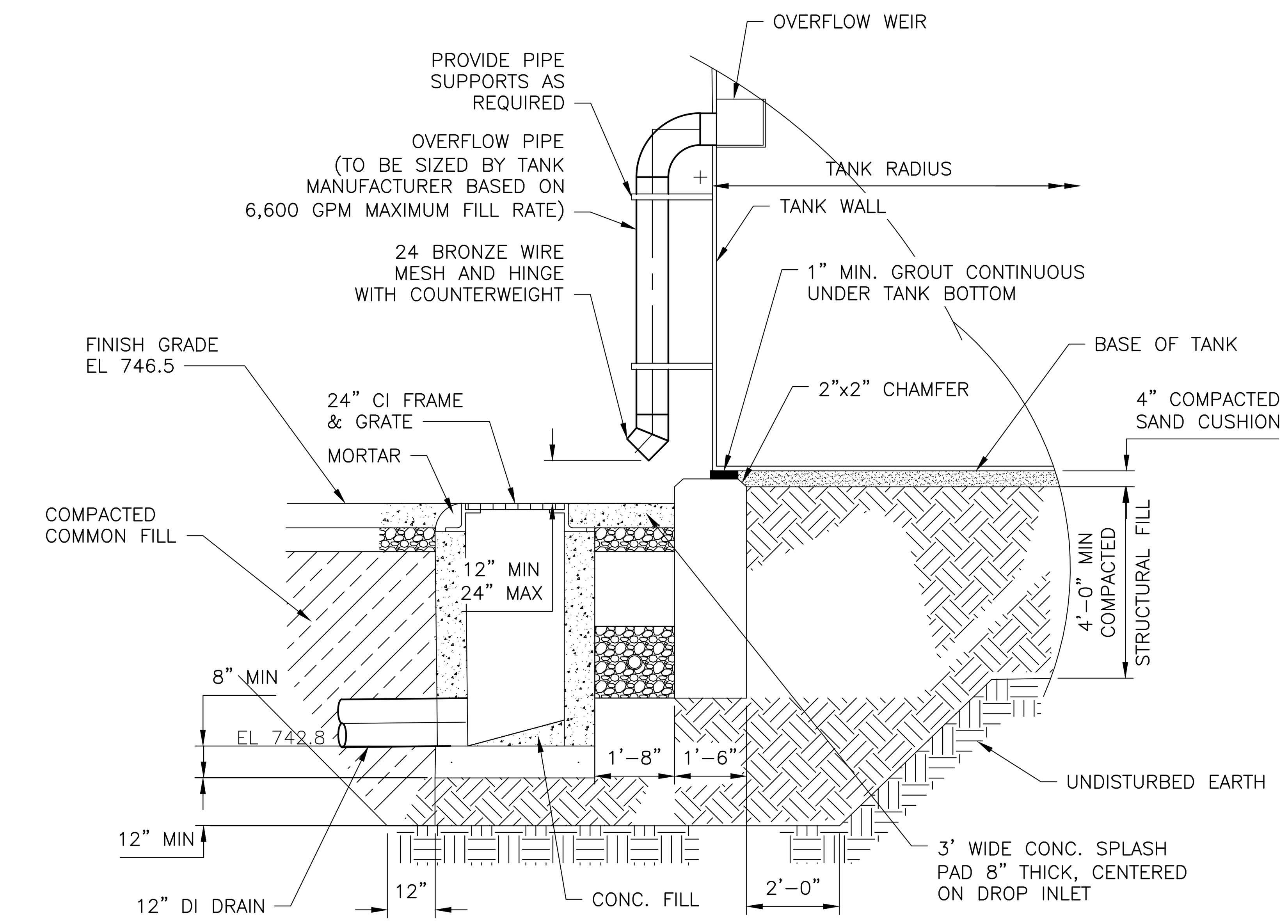
K–CRETE ENCASEMENT NOTES:

1. PIPE SHALL BE ENCASED AS SHOWN ON THE PLAN AND PROFILE DRAWINGS AND AT ALL LOCATIONS WHERE THE HORIZONTAL DISTANCE FROM ANY EXISTING SEWER IS LESS THAN 10 FT FROM OUTSIDE DIAMETER.
2. K–CRETE SHALL CONFORM TO TECHNICAL SPECIFICATION 03650.
3. K–CRETE SHALL BE INSTALLED IN FLOWABLE FORM. DRY INSTALLATION OF K–CRETE WILL NOT BE ALLOWED.

K–CRETE ENCASEMENT

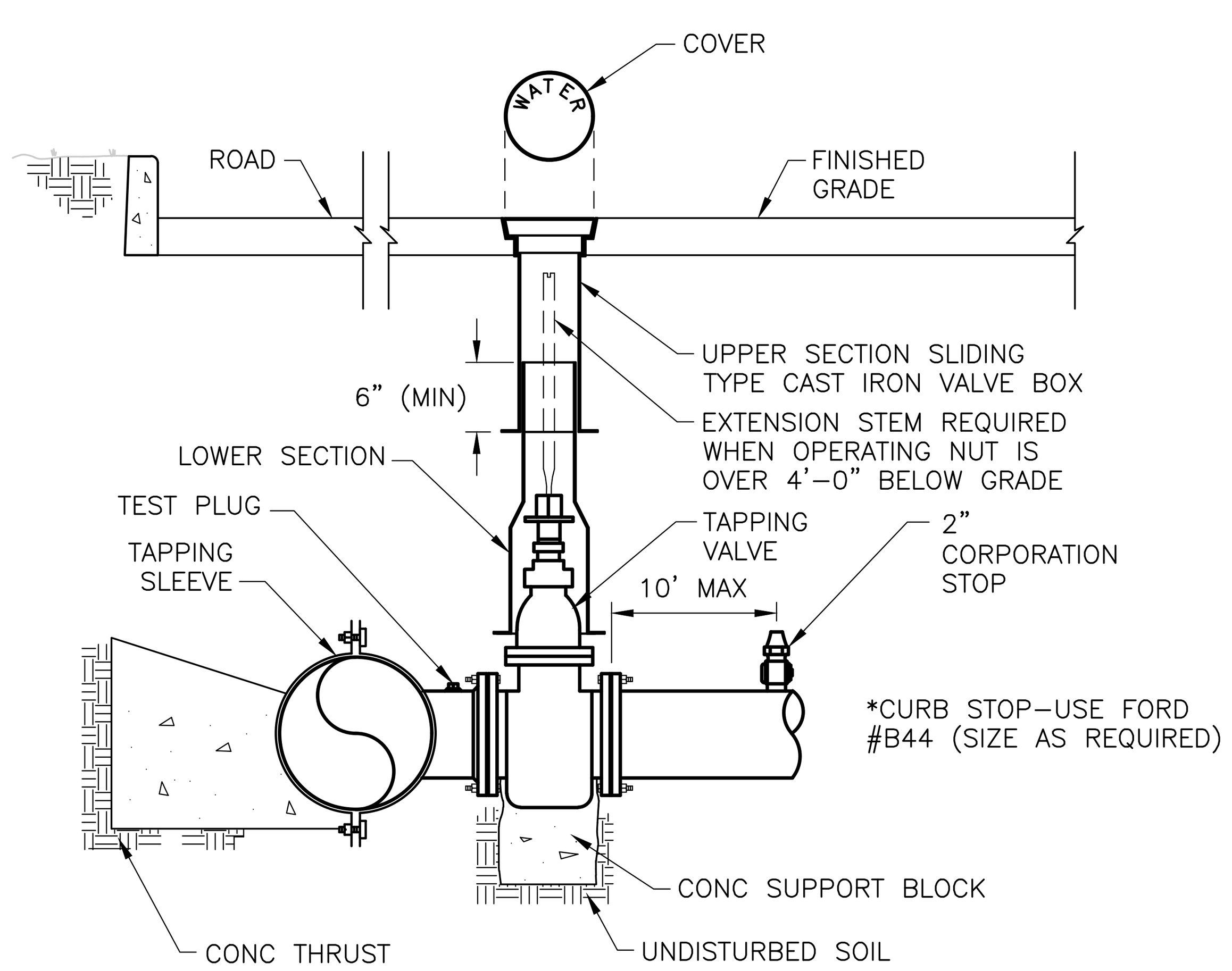
DETAIL B –

NTS



DETAIL C –

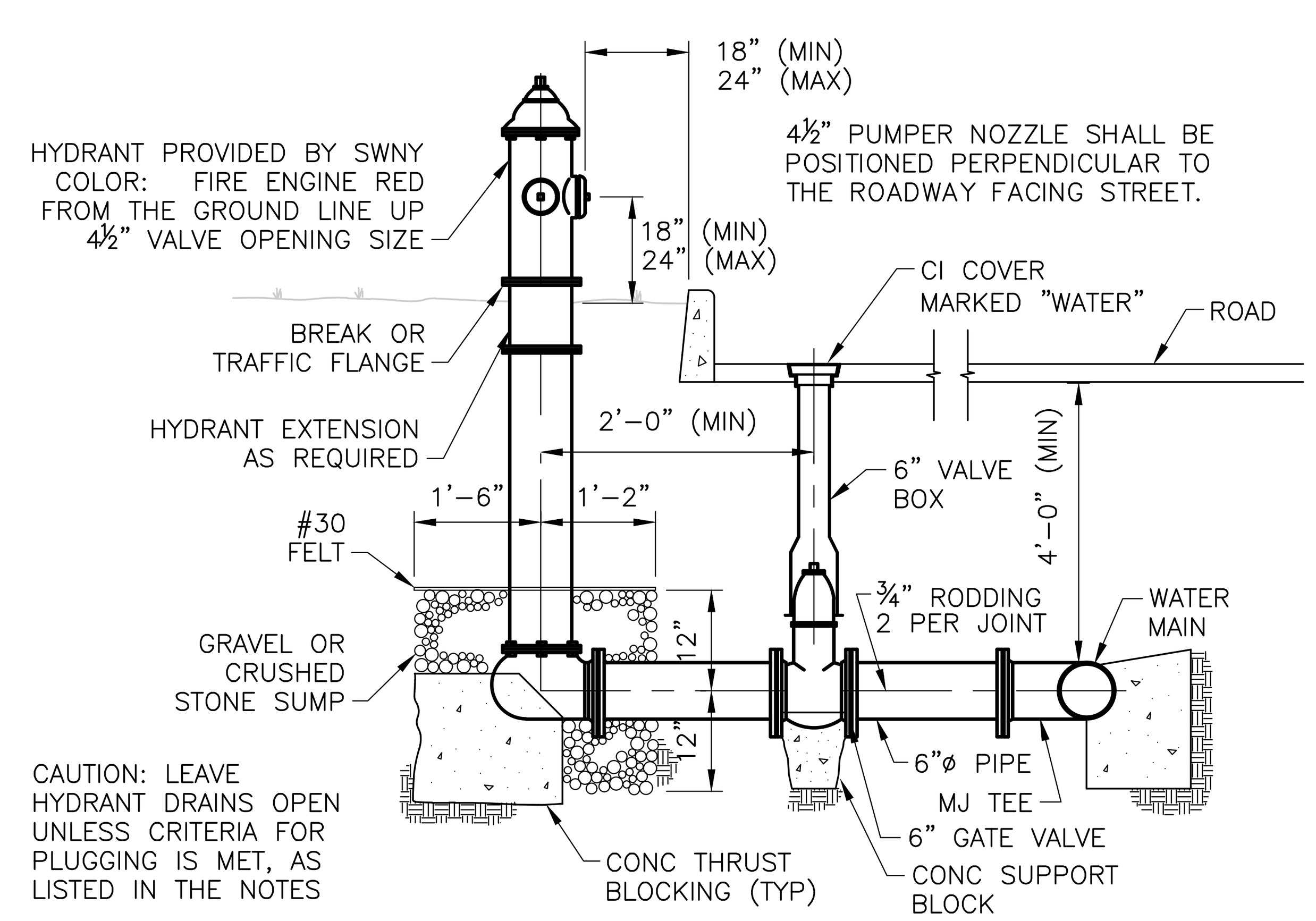
NTS



WET TAP

DETAIL D –

NTS



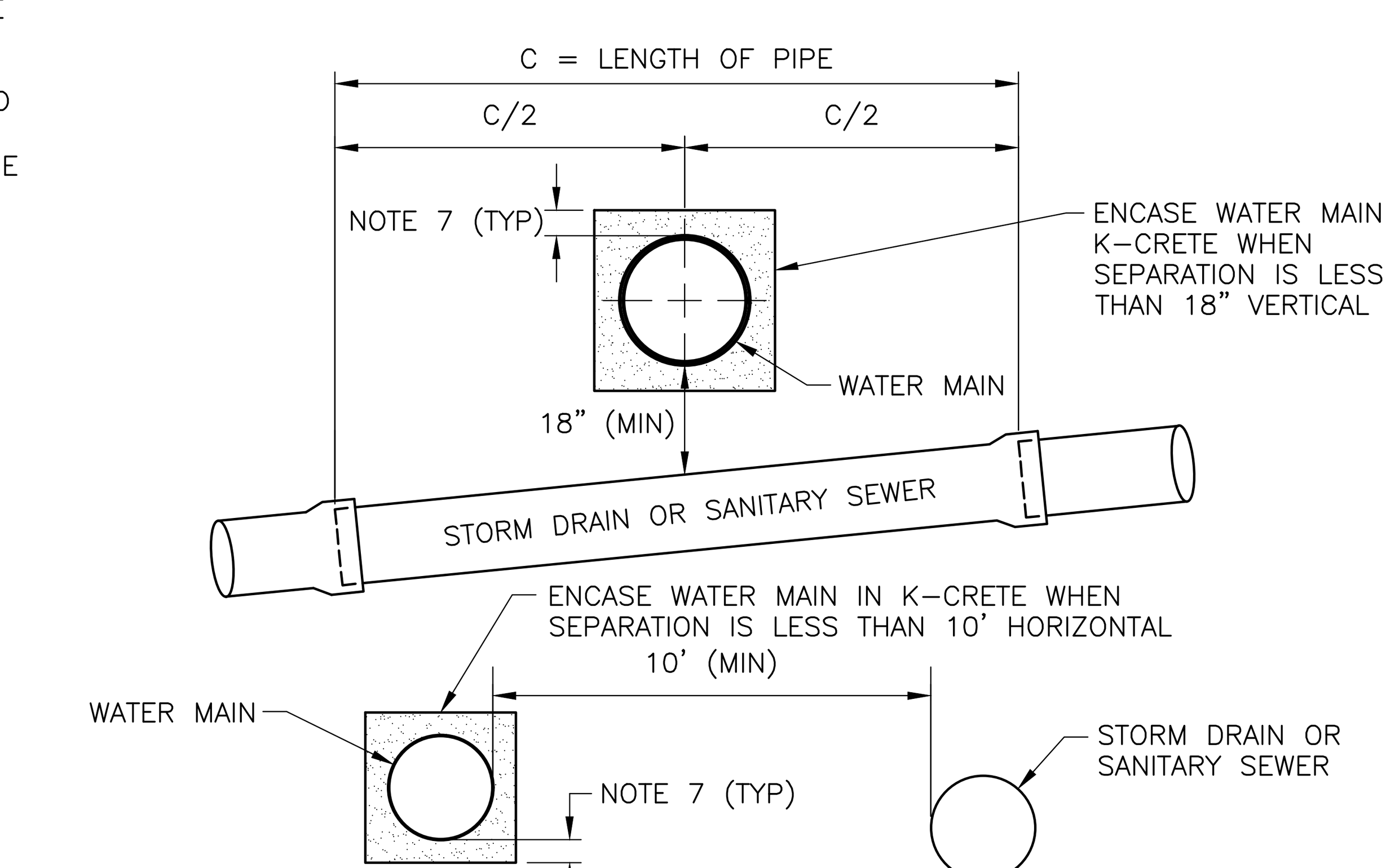
GATE VALVE, VALVE BOX AND FIRE HYDRANT

DETAIL E –

NTS

UTILITY CROSSING NOTES:

1. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN & THE OUTSIDE OF THE SEWER. THIS WILL BE THE CASE WHETHER THE WATER MAIN PASSES ABOVE OR BELOW THE SEWER.
2. AT CROSSINGS, ONE FULL LENGTH OF SEWER PIPE SHALL BE LAID SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. (SEE DETAIL). WHERE THE SEWER HAS ALREADY BEEN INSTALLED, THE WATER MAIN SHALL BE PLACED SO THAT THE JOINTS ON THE WATER MAIN ARE EQUIDISTANT FROM THE SEWER.
3. WATER MAINS SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. IN CASES WHERE THIS IS NOT POSSIBLE, THE PIPE SHALL BE ENCASED IN K–CRETE.
4. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY SEWER MANHOLE.
5. IN THE EVENT THAT THERE IS A DEVIATION FROM ANY OF THE ABOVE REQUIREMENTS, SAID CHANGES MUST BE APPROVED BY THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH PRIOR TO START OF ANY SUCH CHANGES.
6. CONTROL DENSITY BACKFILL SHALL BE PROVIDED WHEN EXISTING UTILITIES ARE UNDERMINED AND SELECT BACKFILL CAN NOT BE PROVIDED.
7. K–CRETE SHALL BE 12" MINIMUM FOR PIPES GREATER THAN 12" DIAMETER AND 6" MINIMUM FOR PIPES LESS THAN OR EQUAL TO 12" DIAMETER.



UTILITY CROSSING

DETAIL F –

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

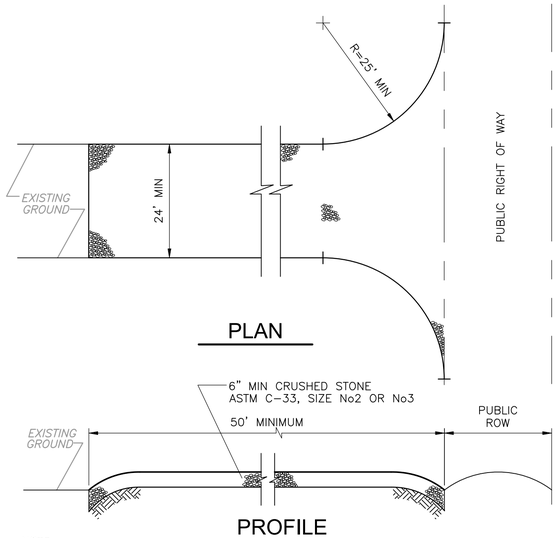
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

CIVIL DETAILS I

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: CSTDT001

SHEET NO.
CD-1



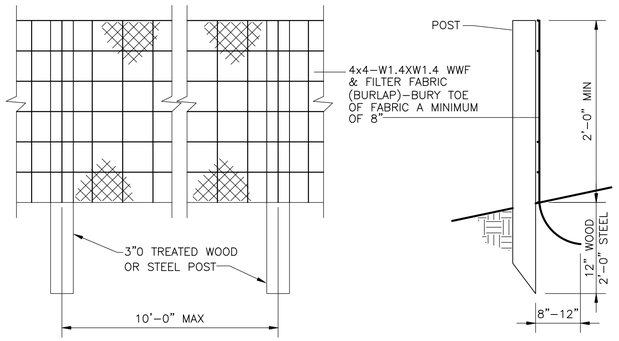
PLAN

PROFILE

NOTE:

PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC RIGHT-OF-WAY
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY

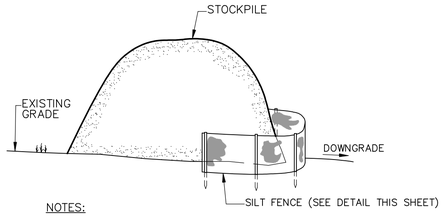
STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NTS –



ELEVATION

SECTION

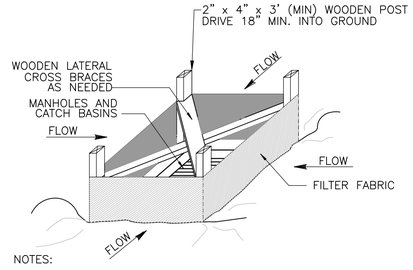
SILT FENCE
DETAIL B
NTS –



NOTES:

1. CLEAN SOIL SHALL BE SEEDED IMMEDIATELY AFTER STOCKPILING.

TEMPORARY STOCK PILE
DETAIL C
NTS –

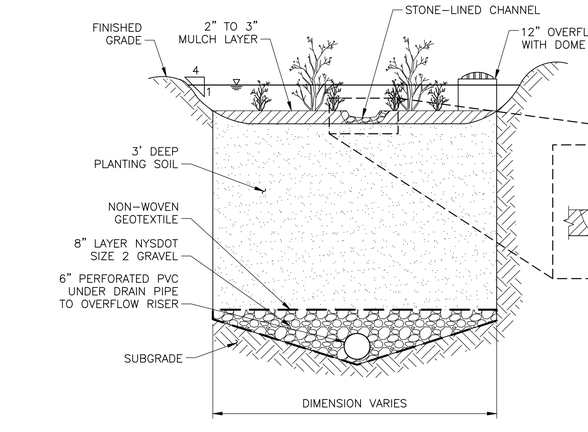


NOTES:

1. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.

2. FILTER FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

SILT FENCE INLET PROTECTION
DETAIL F
NTS –



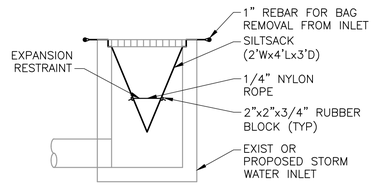
12-INCH STONE LINED CHANNEL

NOTES:

1. CHANNEL TO BE LINED WITH RIVER WASHED GRAVEL.

2. SEED BIORETENTION AREA WITH 1:2 MIX BY WEIGHT OF NEW ENGLAND WETMIX AND NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASIN AND MOIST SITES, AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUAL.

BIORETENTION AREA
DETAIL D
NTS –

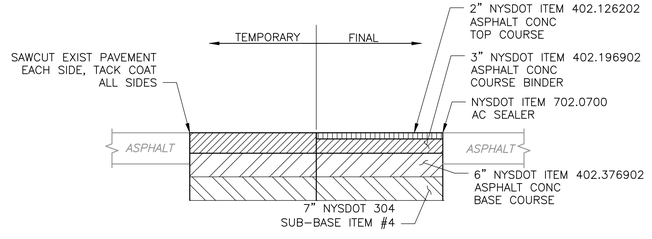


INLET SEDIMENT CONTROL DEVICE NOTE:

1. GEOTEXTILE SEDIMENT COLLECTION SACKS OR BAGS THAT ARE MADE TO FIT INSIDE A STORM INLET MAY BE USED FOR STORM INLET PROTECTION. THE GEOTEXTILE SHOULD BE ABLE TO TRAP FINE SAND OR LARGER SEDIMENT. WHEN INSTALLED, THE GEOTEXTILE SACKS OR BAGS SHOULD BE SECURELY HELD IN THE STORM INLET AND THE INLET GRATE SHOULD BE IN PLACE. THE ITEMS NEEDED FOR REMOVAL OF THE GEOTEXTILE SACKS OR BAGS SHOULD BE PROVIDED AND THE SACKS OR BAGS SHOULD BE REMOVED AND CLEANED OUT OR REPLACED BEFORE THEY BECOME 1/3 FULL OF SEDIMENT. GEOTEXTILE SEDIMENT COLLECTION DEVICES MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2. BERMS MAY BE NECCESSARY TO DIRECT WATER INTO INLET AND TO PREVENT SEDIMENT LADEN WATER FROM BYPASSING THE INLET SEDIMENT CONTROL DEVICE.

INLET SEDIMENT CONTROL DEVICE
DETAIL E
NTS –



ASPHALT PAVEMENT
DETAIL G
NTS –

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

CIVIL DETAILS II

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTDT002

SHEET NO.
CD-2

XREFs: [CDMS_2234] Images: []
Last saved by: HANESRW Time: 11/9/2022 3:47:31 PM
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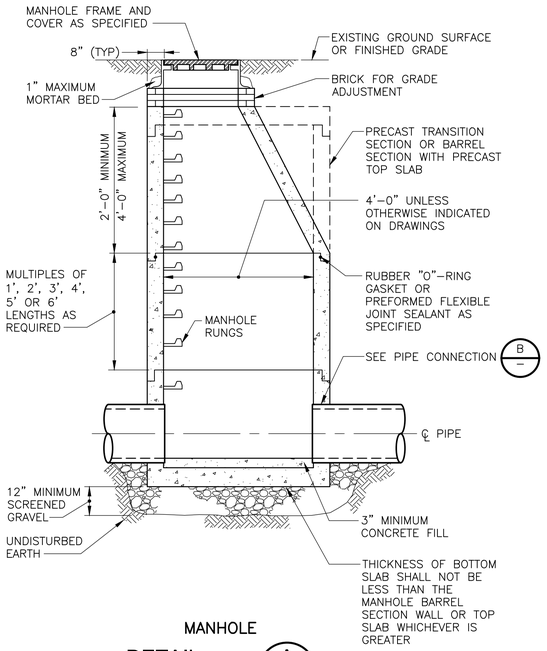
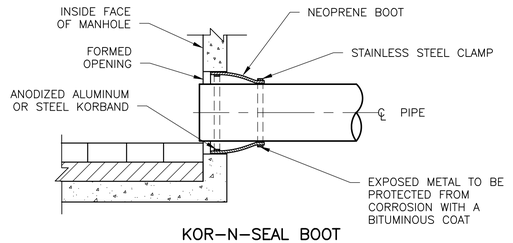
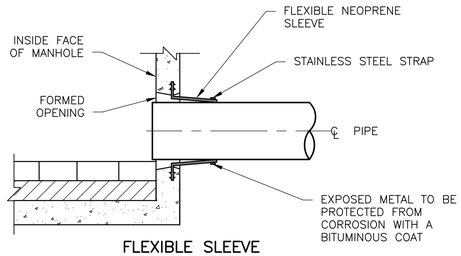


MANHOLE

DETAIL A
NTS –



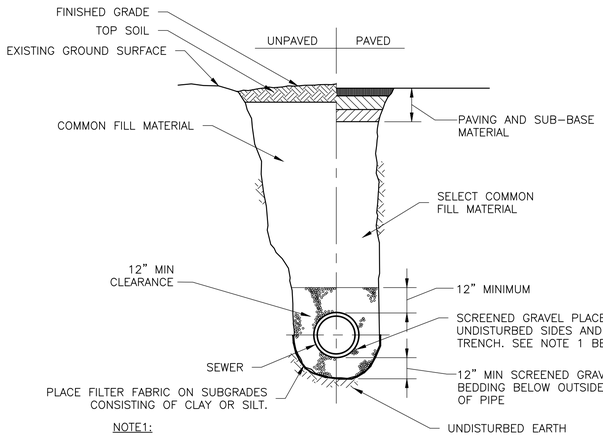
KOR-N-SEAL BOOT



FLEXIBLE SLEEVE

PIPE CONNECTIONS

DETAIL B
NTS –

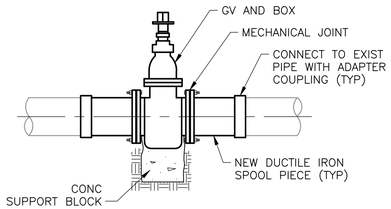


NOTE1:

1. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 300 FT , WHICHEVER IS LESS.

TRENCH FOR DRAIN PIPE

DETAIL C
NTS –

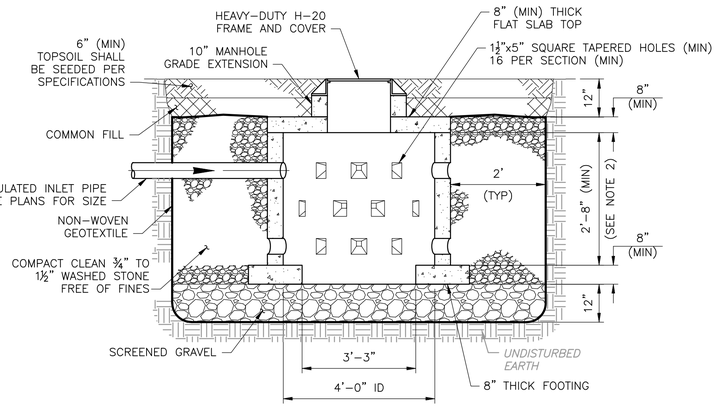


GATE VALVE REPLACEMENT NOTE:

1. GATE VALVE SHALL OPEN RIGHT (CLOCKWISE)

GATE VALVE REPLACEMENT

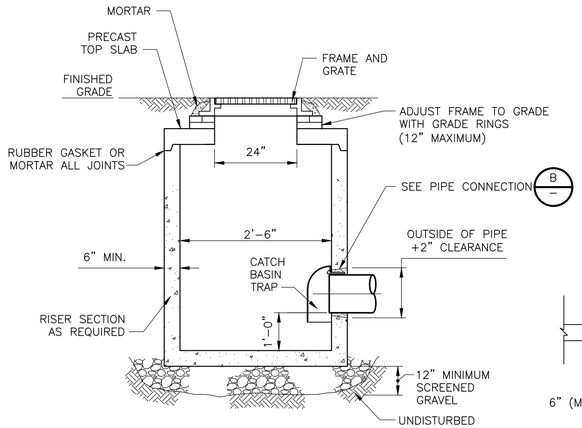
DETAIL D
NTS –



NOTES:
1. DRYWELL SHALL BE H-20 TRAFFIC-RATED.
2. AT TANK SITE DRYWELL SHALL INCLUDE TWO 2'-8" SECTIONS.

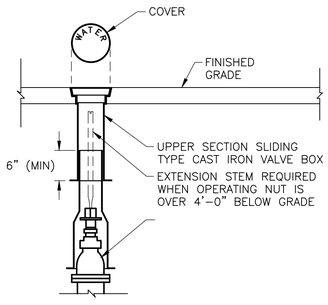
PRECAST REINFORCED CONCRETE DRYWELL

DETAIL E
NTS –



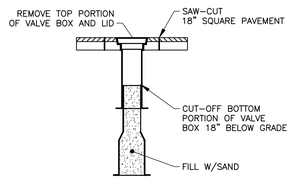
PRECAST SQUARE CATCH BASIN

DETAIL F
NTS –



VALVE BOX

DETAIL G
NTS –

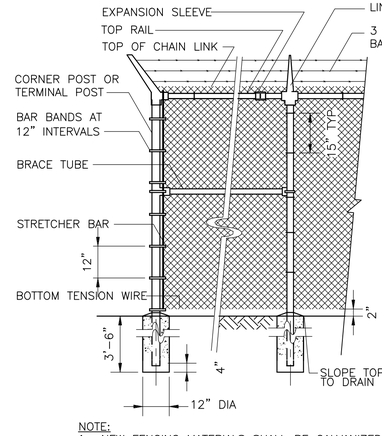


EXISTING VALVE BOX REMOVAL NOTE:

PROVIDE BACKFILL AND PAVEMENT REPLACEMENT IN ACCORDANCE WITH APPLICABLE TRENCH RESTORATION DETAIL.

EXISTING VALVE BOX REMOVAL

DETAIL H
NTS –



NOTE:
1. NEW FENCING MATERIALS SHALL BE GALVANIZED SIMILIAR TO EXISTING FENCE.

CHAIN LINK FENCE

DETAIL I
NTS –

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

CIVIL DETAILS III

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTDT003

SHEET NO.
CD-3

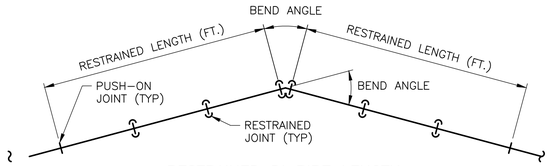
MINIMUM RESTRAINED PIPE LENGTH (FT) FOR VERTICAL BENDS (UP)			
DIAMETER (IN)	VERTICAL BEND ANGLE (DEGREES)		
	45	22 1/2	11 1/4
6	7	4	2
8	9	5	3
10	11	6	3
12	13	7	4
16	17	8	4
20	19	9	5

MINIMUM RESTRAINED PIPE LENGTH (FT) FOR VERTICAL BENDS DOWN			
DIAMETER (IN)	VERTICAL BEND ANGLE (DEGREES)		
	45	22 1/2	11 1/4
6	20	10	5
8	27	13	7
10	32	15	8
12	37	18	9
16	49	24	12
20	57	28	14

MINIMUM RESTRAINED PIPE LENGTH (FT) FOR HORIZONTAL BENDS				
DIAMETER (IN)	HORIZONTAL BEND ANGLE (DEGREES)			
	90	45	22 1/2	11 1/4
6	17	7	4	3
8	22	9	5	3
10	27	11	6	3
12	31	13	7	4
16	40	17	8	4
20	19	9	5	

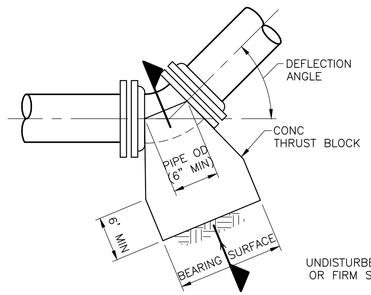
RESTRAINED DI PIPE LENGTH NOTES:

1	DESIGN PRESSURE	= 150 PSI
2	DEPTH OF COVER	= 4 FEET
3	SAFETY FACTOR	= 1.5
4	SOIL TYPE	= COHESIVE GRANULAR
5	SOIL INTERNAL FRICTION ANGLE	= 20 DEGREES
6	SOIL COHESION	= 200 PSF
7	SOIL DENSITY	= 90 PCF

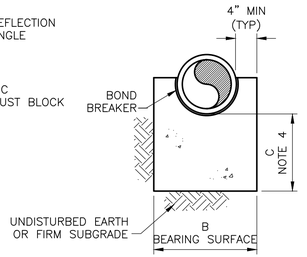


RESTRAINED DI PIPE LENGTH

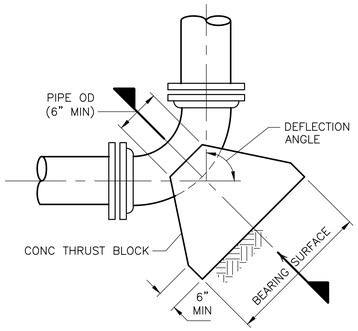
DETAIL A
NTS



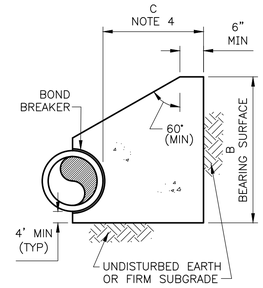
ELEVATION



SECTION



PLAN



SECTION

DETAIL FOR LOWER VERTICAL BENDS

THRUST BLOCKS FOR HORIZONTAL AND LOWER VERTICAL BENDS NOTES:

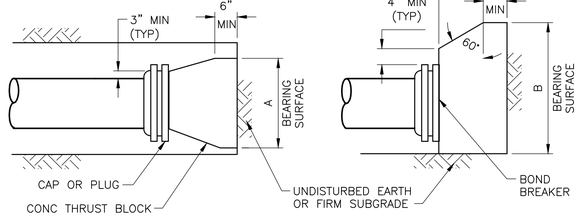
1. MAXIMUM TEST PRESURE = 1.5 x 150 PSI
2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
3. BEARING AREA = A x B
4. C SHALL BE GREATER THAN A/2 AND B/2.

DETAIL FOR HORIZONTAL BENDS

NOMINAL BEND PIPE SIZE (INCHES)	MAXIMUM PIPE OD (INCHES)	REQUIRED BEARING AREA (SQ FT)			
		90	45	22 1/2	11 1/4
6	6.96	6	3	2	1
8	9.00	10	6	3	2
10	11.10	15	8	4	2
12	13.20	22	12	6	3
16	17.40	38	21	10	5
20	21.60	39	25	11	6

THRUST BLOCKS FOR HORIZONTAL BENDS AND LOWER VERTICAL BENDS

DETAIL B
NTS



PLAN

ELEVATION

DETAIL FOR CAPS OR PLUGS

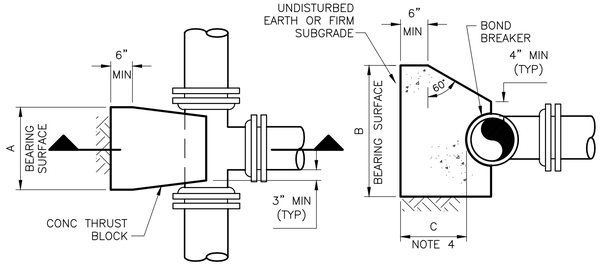
NOMINAL CAP PIPE SIZE (IN)	MAXIMUM PIPE OD (IN)	REQUIRED BEARING AREA (SQ FT)
6	6.90	4
8	9.00	8
10	11.10	11
12	13.20	16
16	17.40	27
20	21.60	41

THRUST BLOCK FOR TEES, CAPS AND PLUGS NOTES:

1. MAXIMUM TEST PRESSURE = 1.50 x 150 PSI
2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
3. BEARING AREA = A x B
4. C SHALL BE GREATER THAN A/2 AND B/2.
5. WHEN POSSIBLE JOINTS TO BE TIED WITH 3 – ¾" RODS TO RESTRAINER ON STRAIGHT PIPE IN LIEU OF THRUST BLOCKING.

THRUST BLOCK FOR TEES, CAPS AND PLUGS

DETAIL C
NTS

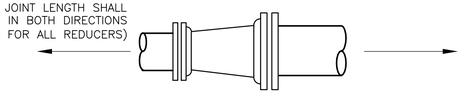


PLAN SECTION

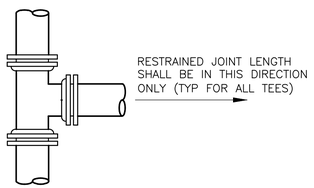
DETAIL FOR TEES

SIZE OF TEE	MAXIMUM BRANCH PIPE OD (IN)	REQUIRED BEARING AREA (SQ FT)
20" X 20" X 20"	21.60	41
20" X 20" X 16"	17.40	22

SIZE OF REDUCER	LENGTH OF RESTRAINED JOINT PIPING (FT)
20" X 16"	23

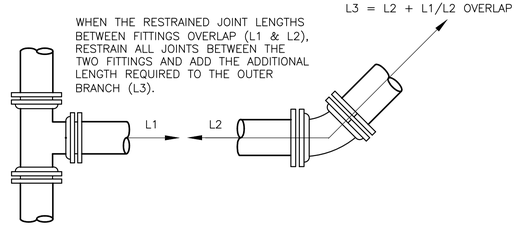


RESTRAINED JOINT LENGTHS FOR REDUCERS



RESTRAINED JOINTS FOR TEES

SIZE OF TEE	RUN LENGTH (FT)	LENGTH OF RESTRAINED BRANCH PIPING (FT)
20" X 20" X 20"	4	51
20" X 20" X 16"	4	36



OVERLAPPING RESTRAINED JOINTS

RESTRAINED JOINTS

DETAIL D
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

CIVIL DETAILS IV

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTDT004

SHEET NO.
CD-4

XREFs: [CDMS_2234] [Images: []
Last saved by: LAFONDKD Time: 8/3/2021 1:28:14 PM
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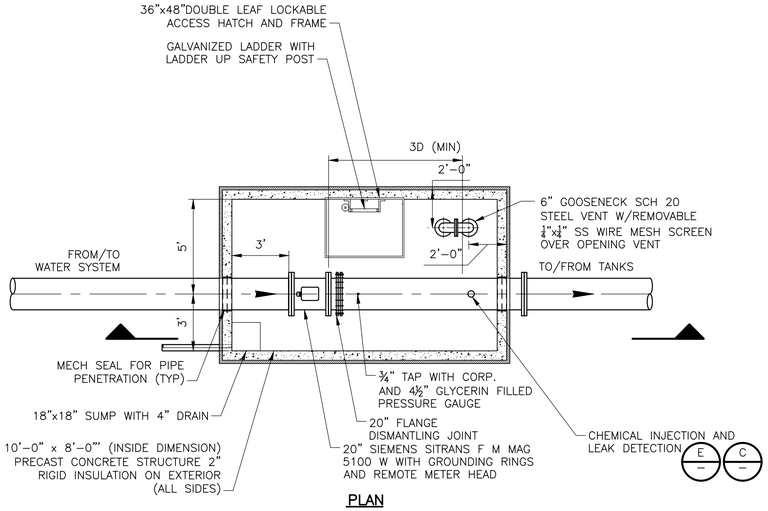
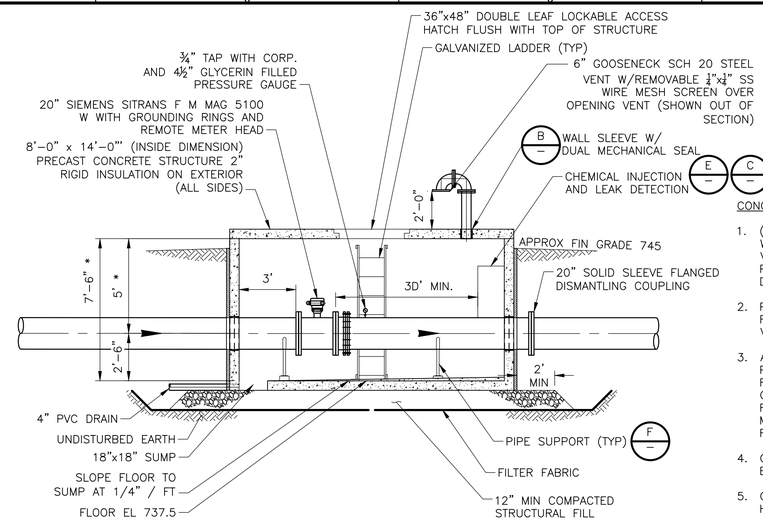


PLAN



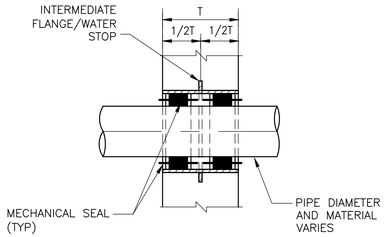
SECTION

CONCRETE VAULT NOTES:

1. (*) CONTRACTOR SHALL CONFIRM DEPTH OF EXISTING 20" RAW WATER TRANSMISSION MAIN BEFORE ORDERING PRECAST METER VAULT. CONCRETE VAULTS SHALL BE CONSTRUCTED AND PRE-ASSEMBLED TO THE DIMENSIONS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
2. PRECAST CONCRETE MANUFACTURER SHALL BE RESPONSIBLE FOR FURNISHING, SHIPPING, AND DELIVERING THE CONCRETE VAULTS.
3. AT LEAST TWO WEEKS PRIOR TO SHIPPING AND DELIVERING THE PRECAST PREFABRICATED CONCRETE VAULTS, A FACTORY REPRESENTATIVE SHALL VISIT THE SITE AND DISCUSS WITH THE CONTRACTOR AND ENGINEER THE EXCAVATION LIMITS AND REQUIREMENTS TO ALLOW THE PRECAST CONCRETE MANUFACTURER TO DELIVER VAULTS AND THE CONTRACTOR TO RIG THE VAULT INTO POSITION.
4. CONTRACTOR SHALL ATTACH "DANGER CONFINED SPACE ENTRY BY PERMIT ONLY" SIGN TO ACCESS HATCHES.
5. CONTRACTOR SHALL CONFIRM THE LOCATION OF REMOTE METER HEAD IN THE FIELD WITH THE OWNER.

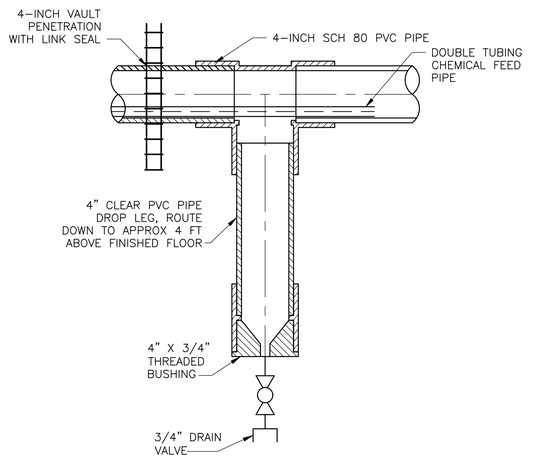
METER VAULT PLAN AND SECTION

DETAIL A — 1/4" = 1'-0"



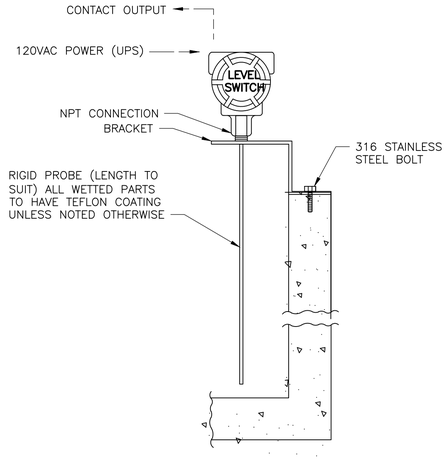
WALL SLEEVE WITH DUAL MECHANICAL SEAL

DETAIL B — NTS



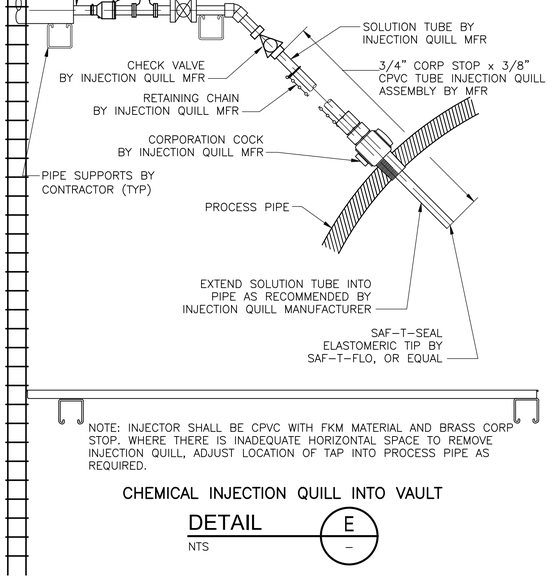
LEAK DETECTION STATION INSIDE CONCRETE VAULT

DETAIL C — NTS



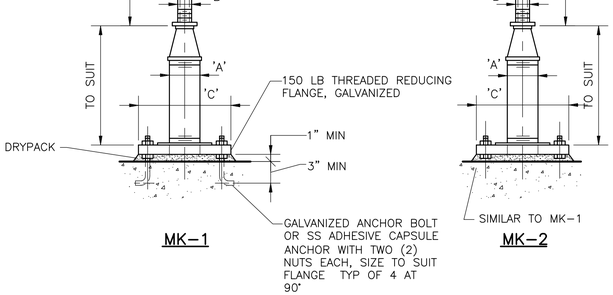
CAPACITANCE TYPE POINT LEVEL SWITCH INSTALLATION IN CONTAINMENT AREA

DETAIL D — NTS



CHEMICAL INJECTION QUILL INTO VAULT

DETAIL E — NTS



MK-1 MK-2

ADJUSTABLE PIPE SUPPORT APPROX DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D MIN	D MAX
20	6	3 ½	13 ½	23 ¼	25 ½

NOTE:

1. UNDER VALVES, METERS OR OTHER SPECIAL APPURTENANCES A FABRICATED SUPPORT PIECE MAY BE UTILIZED AS ACCEPTABLE TO ENGINEER

ADJUSTABLE PIPE SUPPORT

DETAIL F — NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: K. LAFOND
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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11 British American Boulevard, Airport Park, Suite 200
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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

CIVIL DETAILS V

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: CSTDT005

SHEET NO.
CD-5

STRUCTURAL DESIGN CRITERIA

APPLICABLE CODES		ABBREVIATION
• 2020 BUILDING CODE OF NEW YORK STATE		NYSBC
• ASCE 7–16		ASCE
SECTION	DESCRIPTION	REQUIRED
1606	FLOOR DEAD LOADS	
	FIRST FLOOR	
	10" CONCRETE SLAB–ON–GRADE	121 PSF
1606	ROOF DEAD LOADS	
	WOOD RAFTERS & CEILING JOISTS	4.0 PSF
	INSULATION	1.0 PSF
	METAL DECK	3 PSF
	MECHANICAL/ELECTRICAL/PLUMBING ALLOWANCE	7 PSF
	CEILING	2.5 PSF
1607	FLOOR LIVE LOADS	
	WATER TANK	350 PSF
	GENERAL FLOOR AREA	100 PSF
1607	ROOF LIVE LOAD	
	UNIFORM	20 PSF
1608	ROOF SNOW LOAD DATA	
	GROUND SNOW LOAD, p_g	30 PSF
	FLAT–ROOF SNOW LOAD, p_f	25.20 PSF
	SNOW EXPOSURE FACTOR, C_e	1
	SNOW LOAD IMPORTANCE FACTOR, I_s	1.20
	THERMAL FACTOR, C_t	1
	SLOPE FACTOR, C_s	1
1609	WIND DESIGN DATA	
	BASIC DESIGN WIND SPEED, V	130 MPH
	ALLOWABLE STRESS DESIGN WIND SPEED, V_{asd}	101 MPH
	RISK CATEGORY	IV
	WIND EXPOSURE	B
	APPLICABLE INTERNAL PRESSURE COEFFICIENT	+/–0.18
	DESIGN WIND PRESSURES COMPONENTS AND CLADDING	
	ROOF (A_e = 10 SF)	–80 PSF
	WALLS (A_e = 10 SF)	–34 PSF
1610	GEOTECHNICAL INFORMATION	
	RETAINING WALL FOUNDATIONS AND METER BUILDING FOUNDATIONS SHALL BE SUPPORTED ON NATURAL MEDIUM DENSE SANDS OR GRANULAR CONTROLLED COMPACTED FILL DESIGNED FOR BEARING PRESSURES OF:	4,000 PSF
1611	ROOF RAIN LOADS	
	RAIN INTENSITY	1.5 IN/HR
1612	FLOOD DESIGN DATA	
	NOT APPLICABLE	
1613	EARTHQUAKE DESIGN DATA	
	SEISMIC IMPORTANCE FACTOR, I_e	1.50
	MAPPED SPECTRAL RESPONSE ACCELERATION FACTORS:	
	S_S	0.255 g
	S_1	0.071 g
	SITE CLASS	C
	DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:	
	S_{DS}	0.204 g
	S_{D1}	0.08 g
	SEISMIC DESIGN CATEGORY	B
	BASIC SEISMIC FORCE–RESISTING SYSTEM	
	DESIGN BASE SHEAR	2.65 KIPS
	SEISMIC RESPONSE COEFFICIENT, C_S	.14
	RESPONSE MODIFICATION COEFFICIENT, R	1.5
	ANALYSIS PROCEDURE USED	E.L.F.

GENERAL NOTES:

1. REFER TO THE PROJECT MANUAL FOR GOVERNING JOB REQUIREMENTS AND MATERIAL SPECIFICATIONS. THE FOLLOWING NOTES ARE SUPPLEMENTAL TO THE ABOVE REQUIREMENTS.
2. DO NOT CHANGE THE SIZE NOR SPACING OF STRUCTURAL ELEMENTS WITHOUT THE APPROVAL OF THE ENGINEER.
3. DETAILS SHOWN ARE TYPICAL AND APPLY TO SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
5. CONTRACTOR SHALL BRACE BUILDING AS REQUIRED FOR CONSTRUCTION AND WIND LOADS UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. COORDINATE WITH BUILDING MANUFACTURER.
6. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES.
7. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER'S APPROVAL.
8. CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE WORK WITH THE WORK OF OTHERS.
9. VERIFY SIZE AND LOCATION OF OPENINGS WITH ARCHITECTURAL, PROCESS, MECHANICAL, ELECTRICAL, AND PLUMBING REQUIREMENTS PRIOR TO BEGINNING WORK.

FOUNDATION NOTES:

1. REFER TO EARTHWORK NOTES FOR SUBBASE REQUIREMENTS.
2. SOIL BEARING SURFACES, PREVIOUSLY ACCEPTED BY OWNER'S REPRESENTATIVE, WHICH ARE ALLOWED TO BECOME SATURATED, FROZEN, OR DISTURBED SHALL BE REWORKED TO SATISFACTION OF OWNER'S REPRESENTATIVE.
3. STRIP ENTIRE BUILDING AREA. PLACE GRANULAR CONTROLLED COMPACTED FILL PER EARTHWORK NOTES TO REACH REQUIRED SUBGRADE LEVELS AS REQUIRED. FOUNDATIONS MAY BE CONSTRUCTED ON EXISTING, NATURAL MEDIUM DENSE TO DENSE SANDY SOILS. VERIFY ALL PROCEDURES WITH OWNER'S REPRESENTATIVE BEFORE BEGINNING.
4. DO NOT PLACE FOOTINGS IN WATER OR ON FROZEN GROUND.
5. DO NOT ALLOW GROUND BENEATH FOOTINGS TO FREEZE.
6. CENTER FOOTINGS UNDER WALLS UNLESS NOTED OTHERWISE.

SLAB–ON–GRADE NOTES:

1. SUBGRADE BELOW SLAB–ON–GRADE SHALL BE REVIEWED AND ACCEPTED BY OWNER'S REPRESENTATIVE BEFORE CONCRETE SLAB PLACEMENT.
2. CONTROL JOINT AND CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH ENGINEER OF RECORD IN ACCORDANCE WITH SPECIFICATIONS.
3. EXTEND ALTERNATE BARS IN SLAB–ON–GRADE THROUGH CONTROL JOINTS.
4. REFER TO EARTHWORK NOTES FOR SUBBASE REQUIREMENTS.

EARTHWORK:

1. SUBBASE MATERIAL:
   SUBBASE MATERIAL BELOW RETAINING WALL FOOTINGS, METER BUILDING FOOTINGS, AND METER BUILDING SLAB–ON–GRADE SHALL BE A 12" THICK LAYER OF IMPORTED COMPACTED PROCESSED STONE, CLEAN 3/4" STONE, OR NYSDOT TYPE 2 AGGREGATE. THE UPPER 6" SHALL CONSIST OF CLEAN 3/4" STONE.
2. BACKFILL AND FILL MATERIALS:
   FILL MATERIAL TO ACHIEVE REQUIRED SUBGRADE ELEVATION FOR RETAINING WALL AND METER BUILDING FOUNDATION SHALL BE GRANULAR CONTROLLED COMPACTED FILL CONSISTING OF APPROVED PORTIONS OF THE ON–SITE GRANULAR SOILS OR IMPORTED CONTROLLED COMPACTED FILL CONTAINING NO MORE THAN 15% BY WEIGHT PASSING A U.S. STANDARD NO. 200 SIEVE AND A MAXIMUM PARTICLE SIZE OF 4".

   BACKFILL MATERIAL FOR RETAINING WALL AND METER BUILDING FOUNDATION WALL SHALL CONSIST OF SELECT GRANULAR MATERIAL.
3. COMPACTION
   A. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND–OPERATED TAMPERS.
   B. PLACE BACKFILL AND FILL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES REQUIRED ELEVATIONS. PLACE BACKFILL AND FILL UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   C. COMPACT THE TOP 12 INCHES BELOW SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL AND THE SUBBASE TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557.
   D. NO BACKFILLING OR COMPACTION SHALL TAKE PLACE AGAINST ANY CAST–IN–PLACE CONCRETE FOOTINGS OR SLABS PRIOR TO 7 DAYS INITIAL CONCRETE SET, OR AGAINST ANY CAST–IN–PLACE CONCRETE WALLS PRIOR TO ACHIEVING 75% COMPRESSIVE STRENGTH, 0.75 F'C.
   E. HEAVY EQUIPMENT SHALL NOT BE OPERATED WITHIN 4 FEET OF ANY STRUCTURE. HEAVY VIBRATORY COMPACTORS SHALL NOT BE OPERATED WITHIN 4 FEET OF ANY STRUCTURE.
   F. COMPACTION TESTING SHALL BE PERFORMED TO ASCERTAIN THE COMPACTED DENSITY OF THE FILL AND BACKFILL MATERIALS IN ACCORDANCE WITH THE FOLLOWING METHODS:

      IN–PLACE OF RELATIVE DENSITY:
      1. METHOD: AASHTO T191, SAND CONE METHOD
         AASHTO T238, NUCLEAR METHOD
      2. NUMBER OF TESTS: ONE (1) PER 8" VERTICAL LIFT

   G. THE OWNER'S REPRESENTATIVE MAY DIRECT ADDITIONAL TESTS TO ESTABLISH GRADATION, MAXIMUM DENSITY, AND IN–PLACE DENSITY AS REQUIRED BY WORKING CONDITIONS, AT THE CONTRACTOR'S EXPENSE.
   H. ACCEPTANCE CRITERIA: THE SOLE CRITERION FOR ACCEPTABILITY OF IN–PLACE FILL SHALL BE IN SITU DRY DENSITY. MINIMUM DRY DENSITY FOR ALL FILL OR BACKFILL SHALL BE 95 PERCENT OF THE MAXIMUM DRY DENSITY. IF A TEST FAILS TO QUALIFY, THE FILL SHALL BE FURTHER COMPACTED AND RE–TESTED. SUBSEQUENT TEST FAILURES SHALL BE FOLLOWED BY REMOVAL AND REPLACEMENT OF THE MATERIAL.

CAST–IN–PLACE NOTES:

1. ALL ANCHOR BOLTS, PIPE SLEEVES, PIPING, AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT. VERIFY SIZE AND LOCATION OF ALL OPENINGS.
2. CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE NORMAL WEIGHT, AIR ENTRAINED (6% MAX.) AND HAVE THE FOLLOWING MINIMUM 28–DAY COMPRESSIVE STRENGTHS:
   1. ALL CONCRETE: F'C = 4,500 PSI.
3. ALL PIPING AND DUCT PENETRATIONS THROUGH NEW STRUCTURAL SLABS ARE TO BE SLEEVED OR CHASED. NO CORING OF SLAB IS PERMITTED.
4. REINFORCE ALL CONCRETE ELEMENTS (FOOTINGS, WALLS AND SLABS).REINFORCEMENT SHOWN PERTAINS TO ALL TYPICAL CONDITIONS.
5. SPLICES IN REINFORCEMENT SHALL MEET CLASS B TENSION LAP REQUIREMENTS UNLESS NOTED OTHERWISE.
6. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
7. PROVIDE CORNER BARS IN FOOTINGS, THE SAME SIZE AND NUMBER AS CONTINUOUS REINFORCEMENT.
8. DOWEL CONCRETE WALLS INTO FOOTINGS WITH DOWELS THE SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT. EXTEND DOWELS TO WITHIN 3" OF BOTTOM OF FOOTING, TERMINATED WITH ACI STD. 90 DEGREE HOOK, UNLESS NOTED OTHERWISE.
9. PROVIDE KEYS IN CONCRETE WALLS AND FOOTINGS AT INTERSECTION OF CONCRETE.
10. PROVIDE 3/4" X 3/4" CHAMFER AT ALL EXPOSED CORNERS UNLESS NOTED OTHERWISE.
11. NO HOLES OR OPENINGS ARE PERMITTED THROUGH CONCRETE SLABS OR WALLS EXCEPT AS FOLLOWS:
    A. WHERE SHOWN AND AS DETAILED ON DRAWINGS.
    B. MISCELLANEOUS HOLES THROUGH SLABS OR WALLS WHICH DO NOT DISPLACE MORE THAN ONE BAR. THESE DO NOT REQUIRE ADDITIONAL REINFORCEMENT.
12. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT. DETAIL JOINT ON SHOP DRAWINGS.

STRUCTURAL STEEL NOTES:

1. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
2. WELD (SHIELDED METAL ARC) – ELECTRODES SHALL BE E70XX AND BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE", LATEST EDITION.
3. SPECIFIED STEEL STRENGTH:
   ANGLES, PLATES, ETC. 36KSI.

MISCELLANEOUS:

1. EXPANSION ANCHORS: HILTI KWIK KB–TZ STUD ANCHOR (STAINLESS)

REV. NO.	DATE	DRWN	CHKD	REMARKS

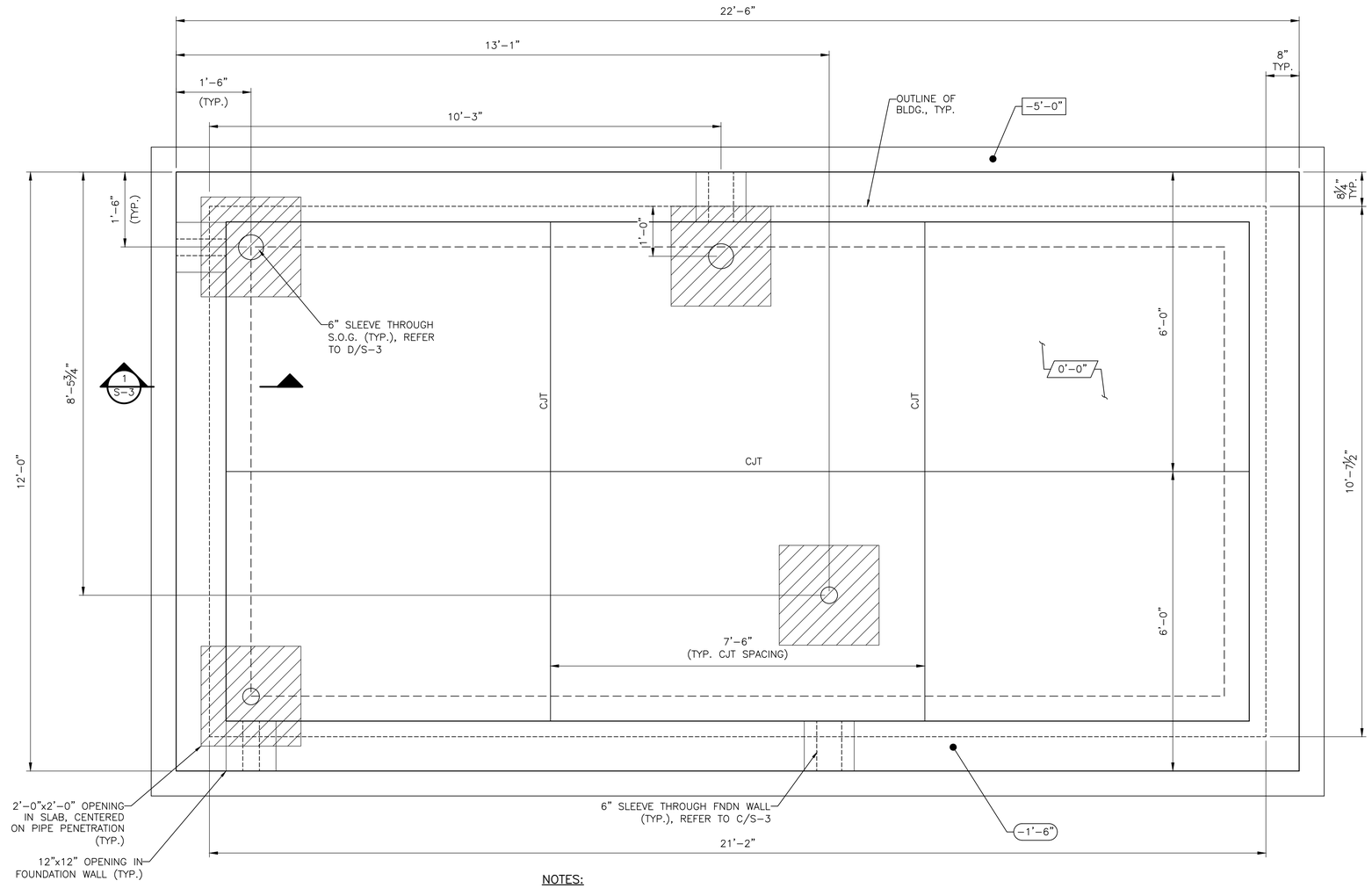
DESIGNED BY: TS
DRAWN BY: KLG
SHEET CHK'D BY: CMD
CROSS CHK'D BY:
APPROVED BY:
DATE: SEPT 2020

CDM Smith
Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065
Camp Dresser McKee & Smith
6800 Old Collamer Road, Suite 3
East Syracuse, NY 13057
Tel: (315) 434-3200

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

GENERAL NOTES

PROJECT NO. 250197–234408
FILE NAME: s001gnnt
SHEET NO.
S-1



NOTES:

1. REFERENCE ELEVATION= XXX.XX'= FINISHED SLAB ELEVATION= 0'-0".
2. X'-XX" DENOTES TOP OF SLAB ELEVATION FROM REF. ELEVATION.
3. (X'-XX") DENOTES TOP OF WALL ELEVATION FROM REF. ELEVATION.
4. [X'-XX"] DENOTES TOP OF FOOTING ELEVATION FROM REF. ELEVATION.
5. CJT DENOTES CONTROL JOINT, REFER TO DETAIL A/S-3.
6. CONTRACTOR TO PROVIDE PRE-ENGINEERED BUILDING COORDINATED WITH PROPOSED FOUNDATION SYSTEM.

TREATMENT STATION FOUNDATION AND SLAB

PLAN

3/4" = 1'-0"

12" 6" 0 1' 2' 3'

SCALE: 3/4"=1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: TS
DRAWN BY: KLG
SHEET CHK'D BY: CMD
CROSS CHK'D BY:
APPROVED BY:
DATE: SEPT 2020

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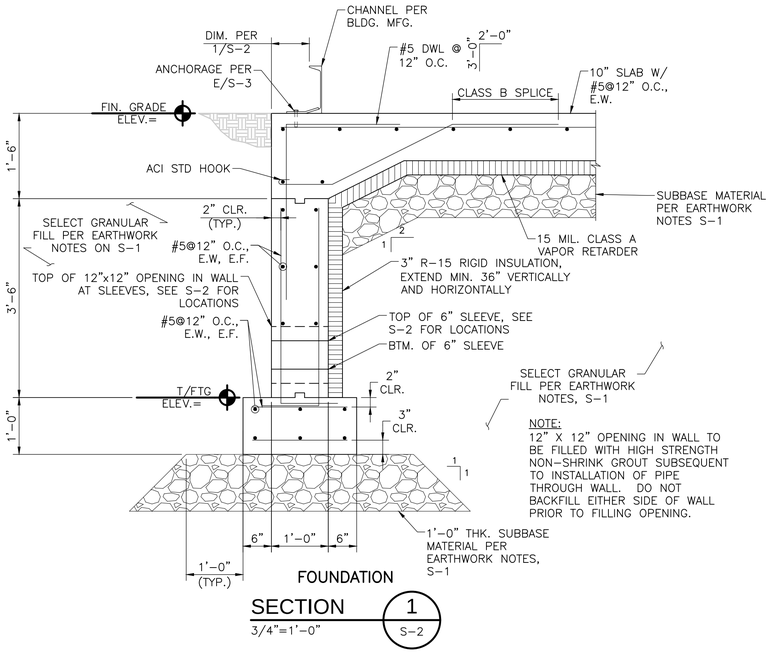
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

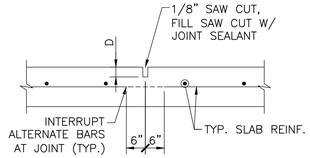
STRUCTURAL FOUNDATION AND SLAB PLAN

PROJECT NO. 250197-234408
FILE NAME: s002fdpl

SHEET NO.
S-2



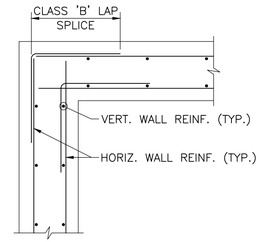
FOUNDATION SECTION 1 — 3/4"=1'-0" — S-2



NOTE:

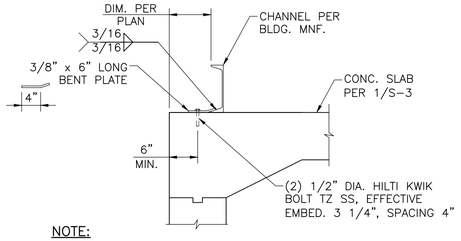
1. D = SLAB DEPTH x .25

SLAB-ON-GRADE CONTROL JOINT DETAIL A — N.T.S. — S-3



CORNER

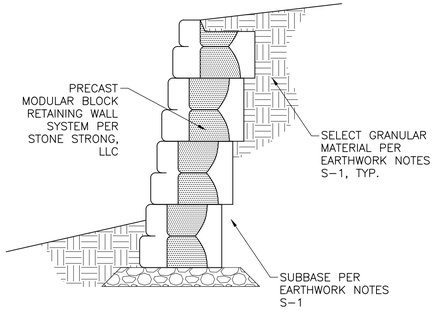
TYPICAL HORIZONTAL WALL REINF. DETAIL B — N.T.S. — S-3



NOTE:

1. LOCATE CENTERLINE OF PLATE 12" FROM EACH END OF EACH BUILDING SUPPORT CHANNEL.

TYPICAL BLDG ANCHORAGE DETAIL C — N.T.S. — S-3



NOTES:

1. REFER TO CIVIL DRAWING NO. C-3 FOR PROPOSED WALL LAYOUT AND GRADE ELEVATIONS.
2. FINAL WALL DESIGN PER STONE STRONG SYSTEMS.

RETAINING WALL DETAIL D — N.T.S. — S-3

12" 6" 0 1' 2' 3'

SCALE: 3/4"=1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: TS
DRAWN BY: KLG
SHEET CHK'D BY: CMD
CROSS CHK'D BY:
APPROVED BY:
DATE: SEPT 2020

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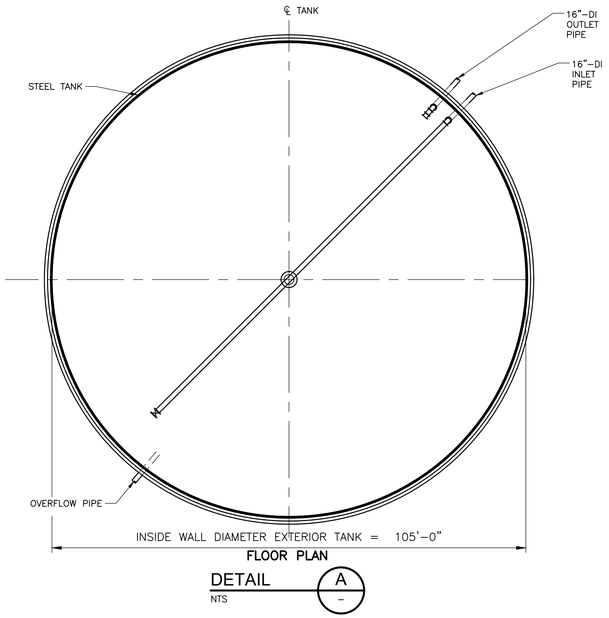
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

STRUCTURAL TYPICAL DETAILS

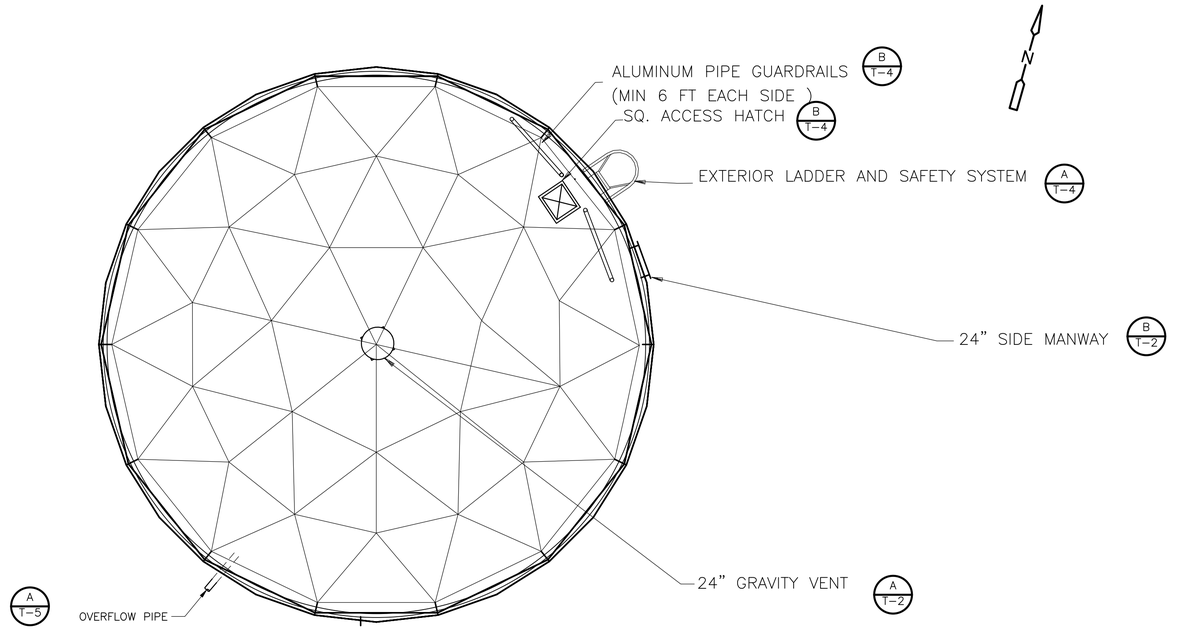
PROJECT NO. 250197-234408
FILE NAME: s003sddt

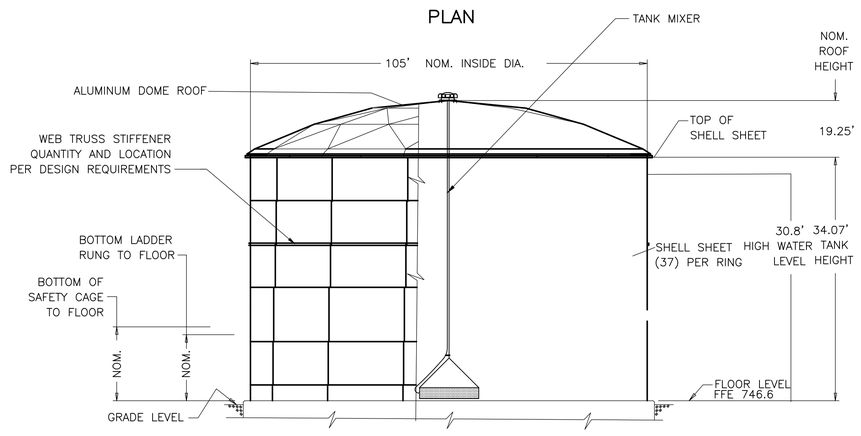
SHEET NO. S-3



FLOOR PLAN

DETAIL A
NTS





ELEVATION

ELEVATION
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
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Tel: (518) 782-4500

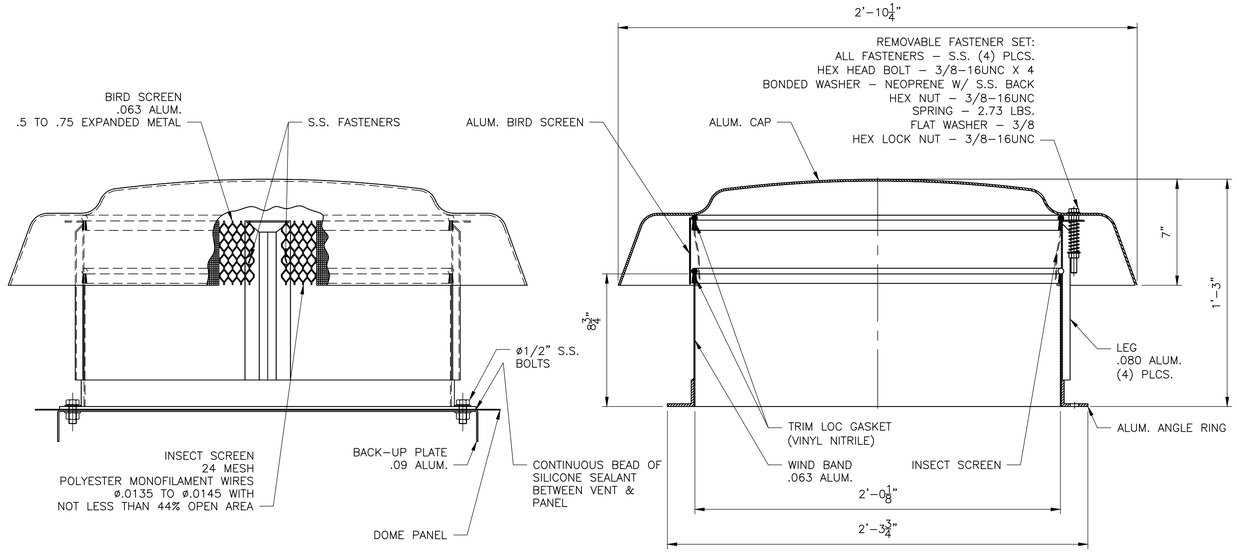
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

GLASS FUSED TO STEEL
TANK PLAN, ELEVATION, AND DETAIL

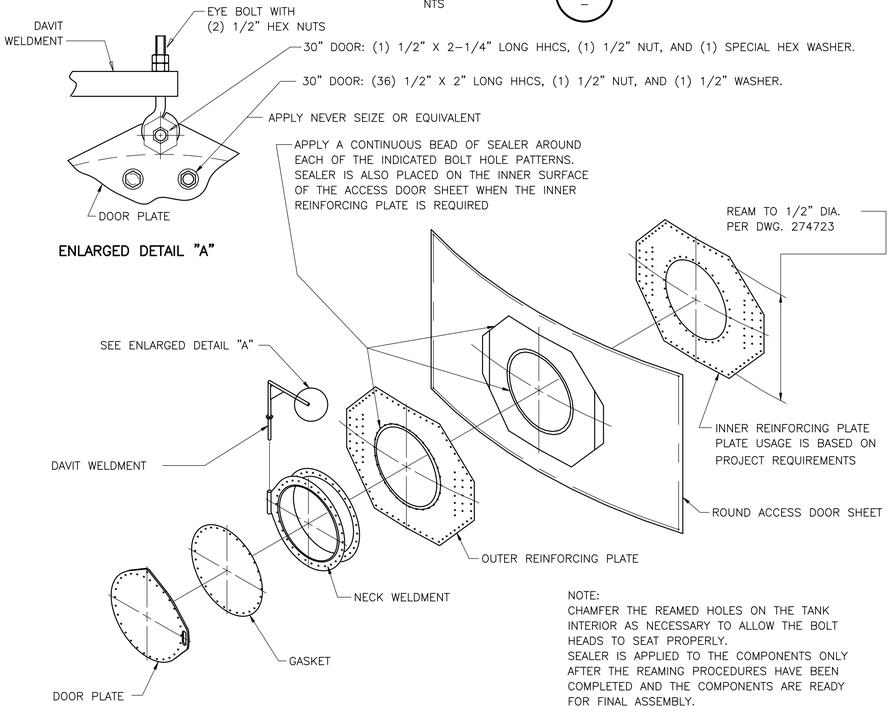
SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: TNKPL001

SHEET NO.
T-1



GRAVITY VENT

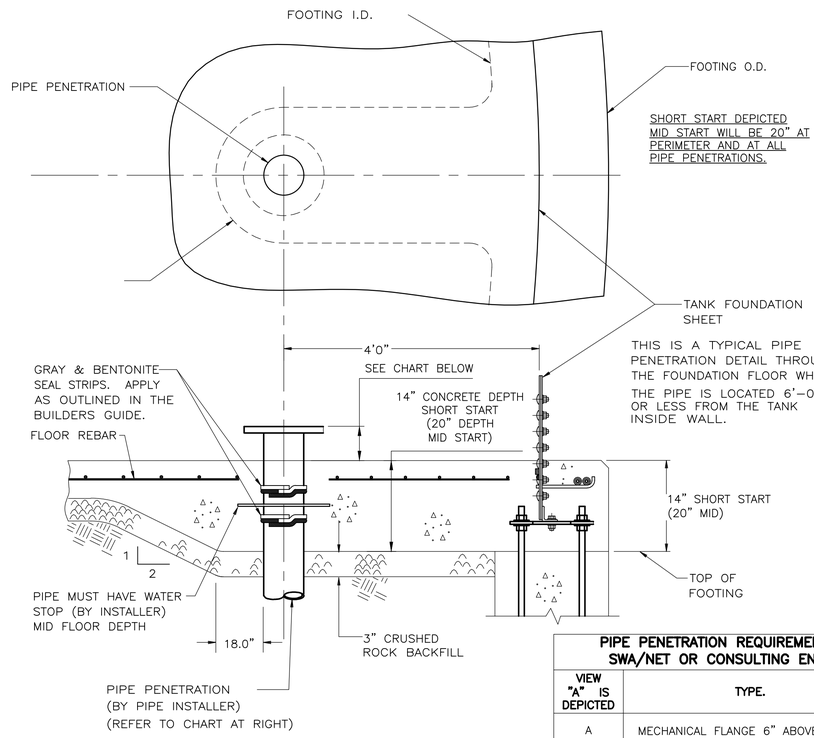
DETAIL A / NTS



NOTE:
CHAMFER THE REAMED HOLES ON THE TANK INTERIOR AS NECESSARY TO ALLOW THE BOLT HEADS TO SEAT PROPERLY.
SEALER IS APPLIED TO THE COMPONENTS ONLY AFTER THE REAMING PROCEDURES HAVE BEEN COMPLETED AND THE COMPONENTS ARE READY FOR FINAL ASSEMBLY.

MANWAY

DETAIL B / NTS



PIPE PENETRATION REQUIREMENTS PER SWA/NET OR CONSULTING ENGINEER		
VIEW "A" IS DEPICTED	TYPE.	QUAN. EACH
A	MECHANICAL FLANGE 6" ABOVE FLOOR	2
B	PLAIN END 6" ABOVE FLOOR	0
C	PLAIN END FLUSH WITH FLOOR	0

FLOOR PENETRATION (6 FEET OR LESS)

DETAIL C / NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

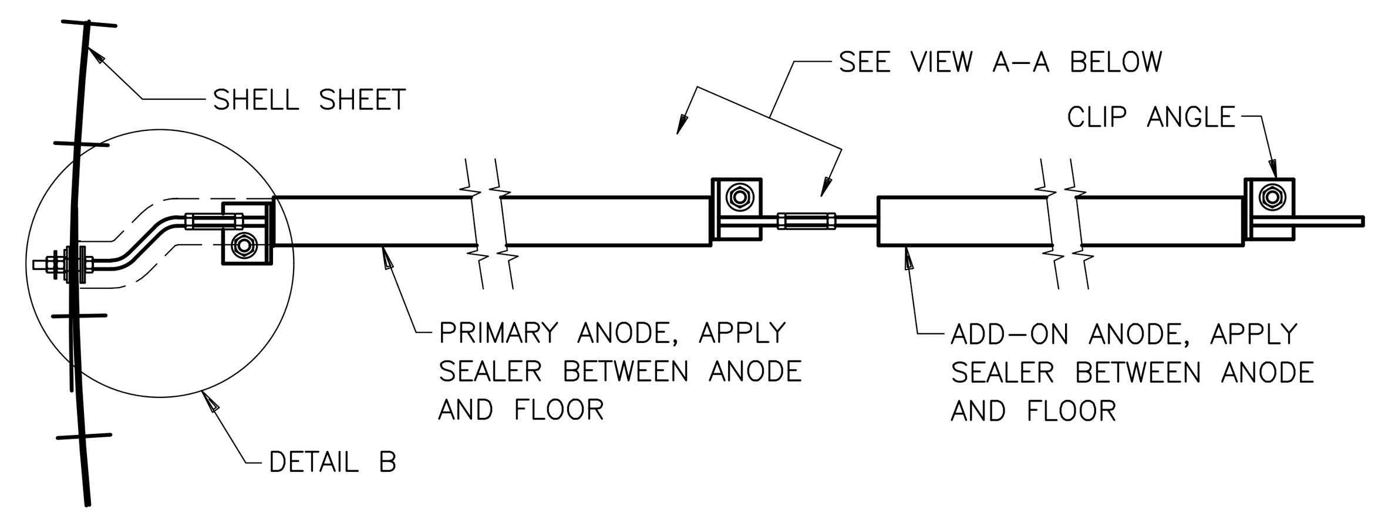
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

GLASS FUSED TO STEEL
TANK PLAN, SECTION AND ELEVATION I

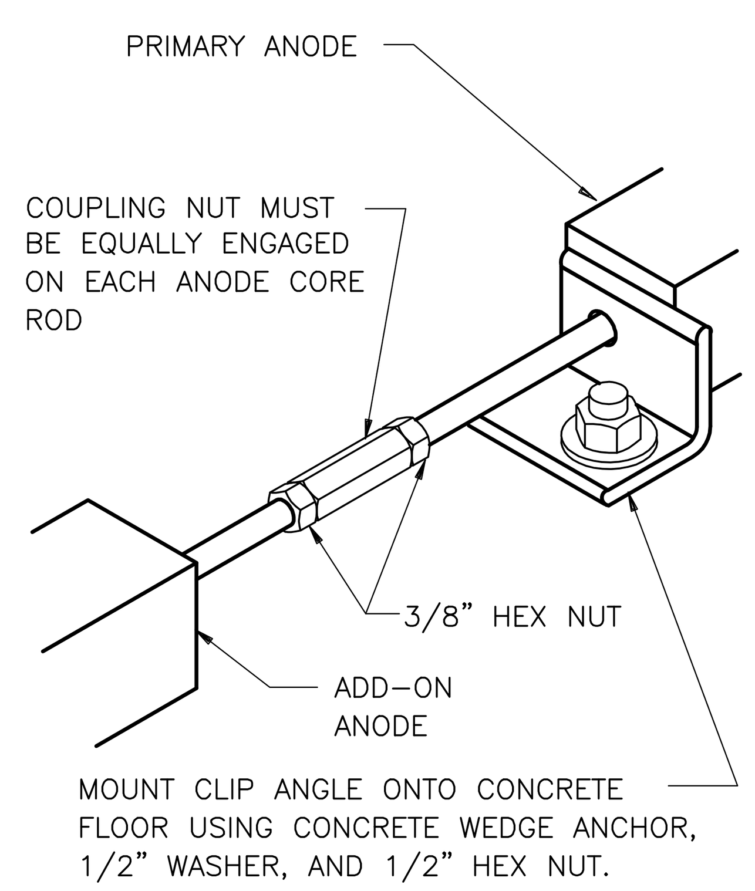
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL002

SHEET NO.
T-2

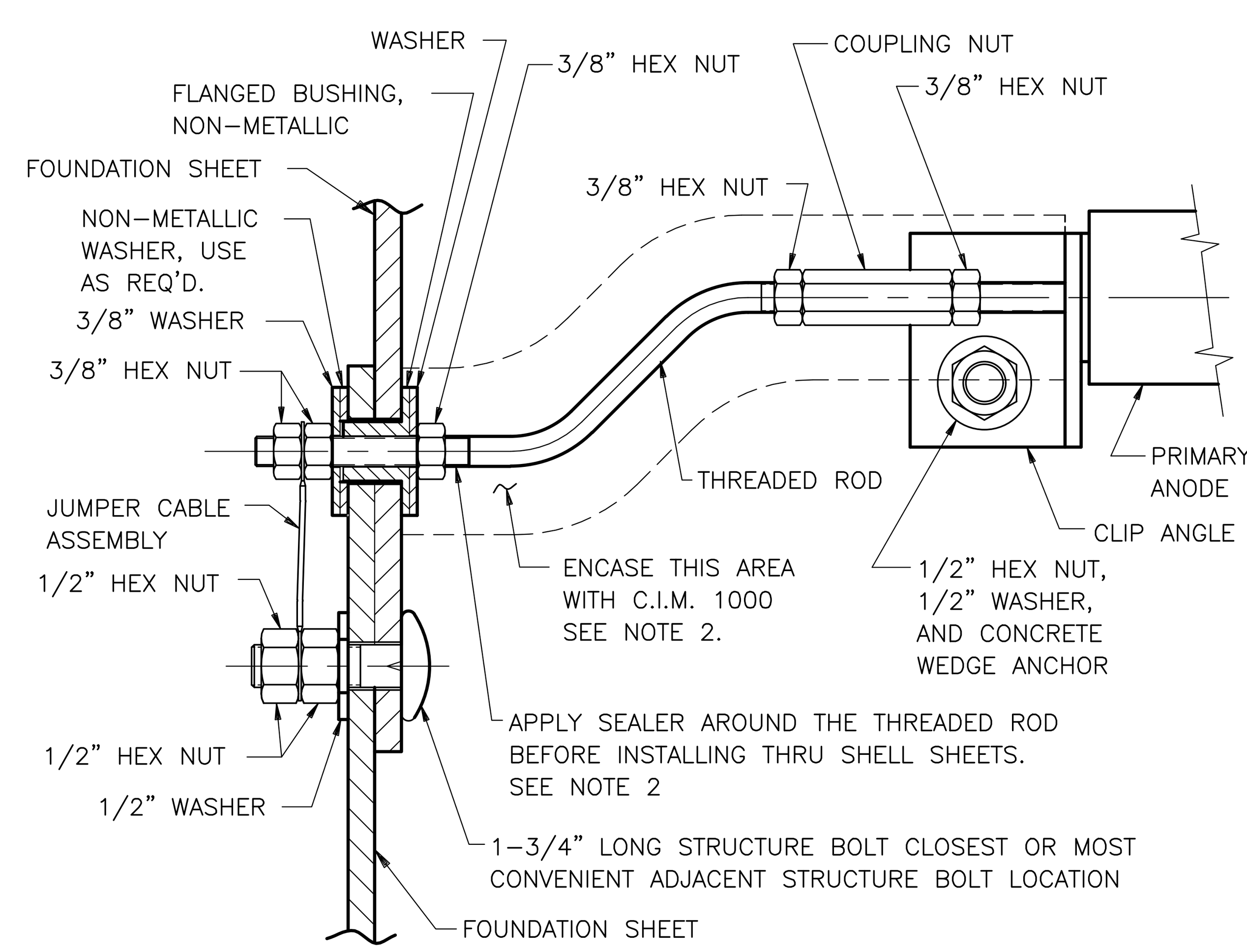


USAGE AQUASTORE CONCRETE FOUNDATION
PLAN VIEW OF ANODE IN ASSEMBLED POSITION

NOTES:
1. THIS CONSTRUCTION DETAIL IS INTENDED TO SHOW THE CATHODIC PROTECTION SYSTEM AS INSTALLED.
2. ALL SEALER AND C.I.M. 1000 USED WHEN INSTALLING THE CATHODIC PROTECTION SYSTEM IS TO BE SUPPLIED BY THE BUILDER.



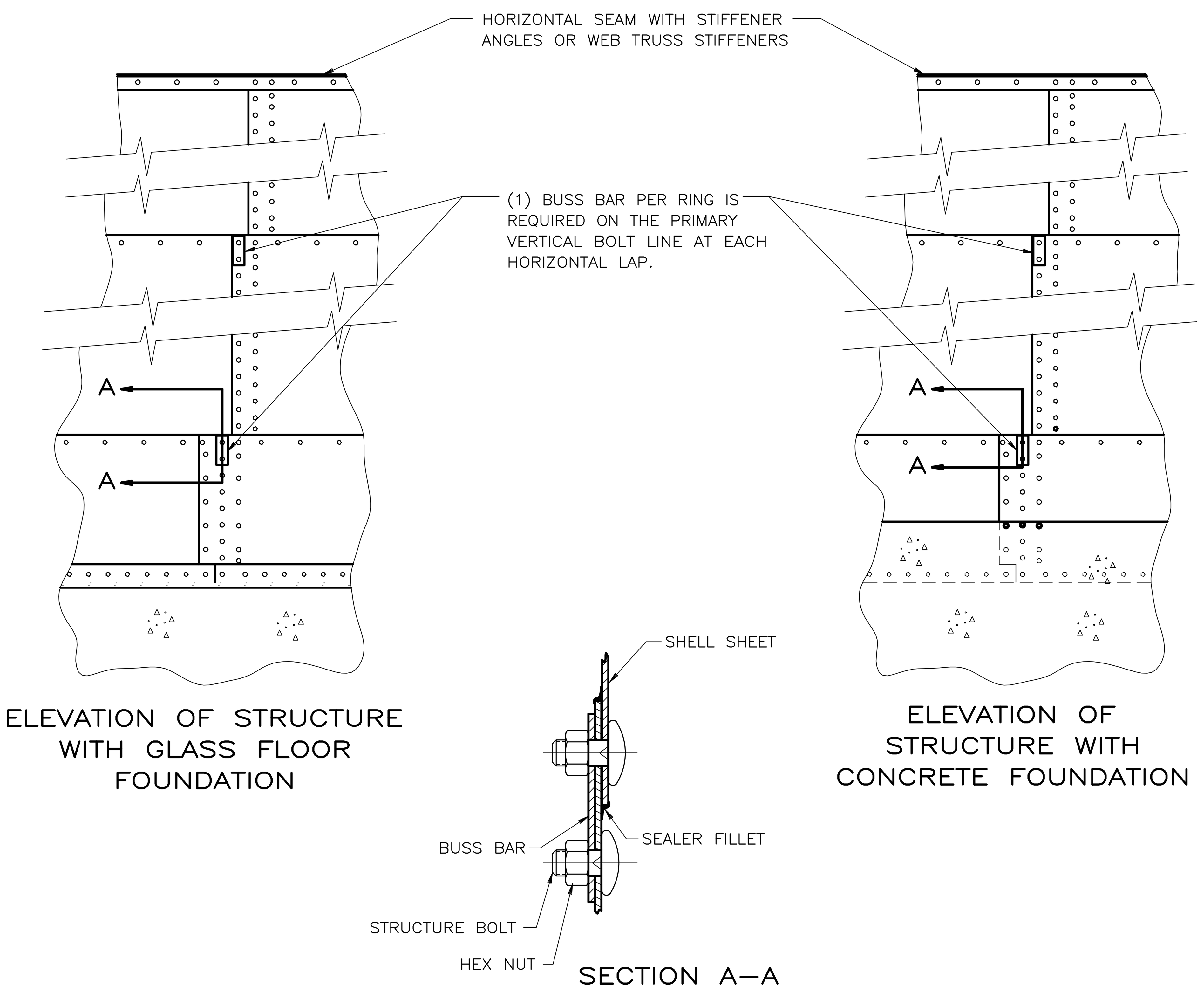
VIEW A–A



DETAIL B

CONCRTE FOUNDATINS ANODE ATTACHMENT

DETAIL A
NTS –



ELEVATION OF STRUCTURE WITH GLASS FLOOR FOUNDATION

ELEVATION OF STRUCTURE WITH CONCRETE FOUNDATION

SECTION A–A

BUSS BAR LOCATIONS

DETAIL B
NTS –

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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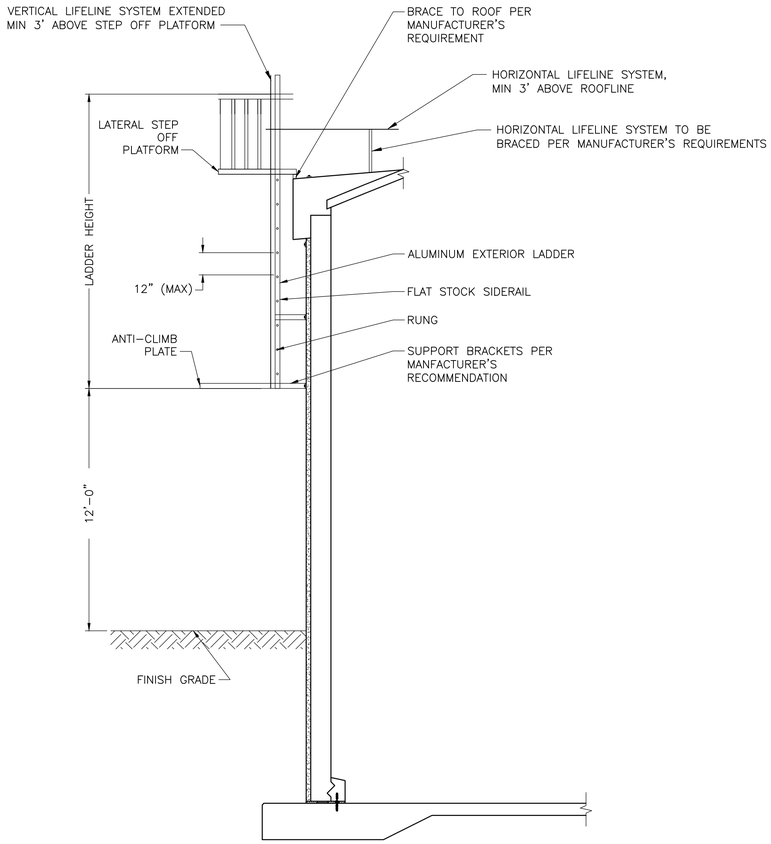
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

GLASS FUSED TO STEEL
TANK PLAN, SECTION AND ELEVATION

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: TNKPL003

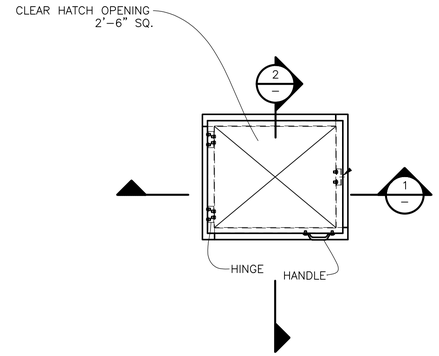
SHEET NO.
T-3



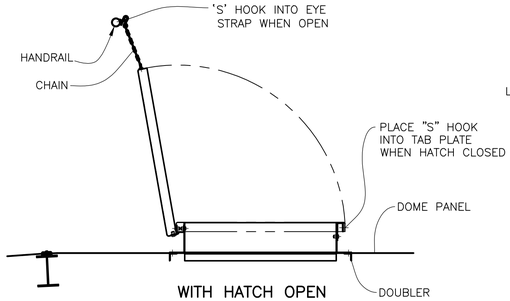
EXTERIOR LADDER NOTES:

1) ALL MATERIAL FOR EXTERIOR LADDER, SIDERAILS, RUNGS, AND BRACKETS TO BE 6061-T6 ALUMINUM.
2) 3M LAD-SAF X2. SAFETY LIFELINE SHALL BE USED FOR VERTICAL LIFELINE SYSTEM. SYSTEM SHALL HAVE SAFETY CABLE GRAB.
3) EXTERIOR LADDERS SHALL NOT HAVE A FALL CAGE.
4) A LATERAL STEP-OFF PLATFORM TO BE PROVIDED. THE PLATFORM SHALL BE RATED FOR 5000-LBS PER PERSON ATTACHED. THE PLATFORM SHALL HAVE A CONTINUATION OF THE SAFETY CABLE. PERSONNEL MUST BE ABLE TO TRANSFER TO THE HORIZONTAL LIFELINE SYSTEM AT THE STEP-OFF PLATFORM.
5) VERTICAL SAFETY CABLE SHALL EXTEND A MINIMUM OF 3-FT ABOVE THE TOP OF RAIL OF THE STEP-OFF PLATFORM. THERE IS TO BE NO BELOW-PLATFORM DISCONNECT.
6) LADDER WRUNGS TO BE SOLID BARS AND KNURLED.
7) ALL ALUMINUM THAT COMES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS, SHALL BE COATED AND INSULATED.

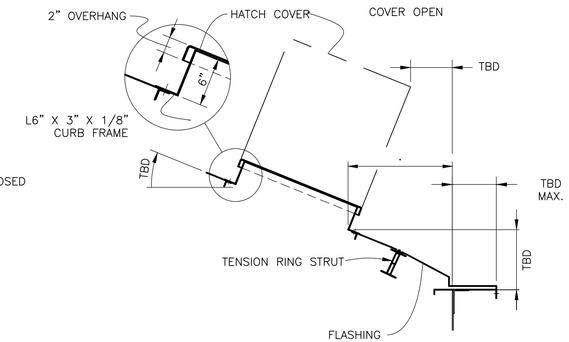
EXTERIOR LADDER AND SAFETY SYSTEM
DETAIL A
NTS



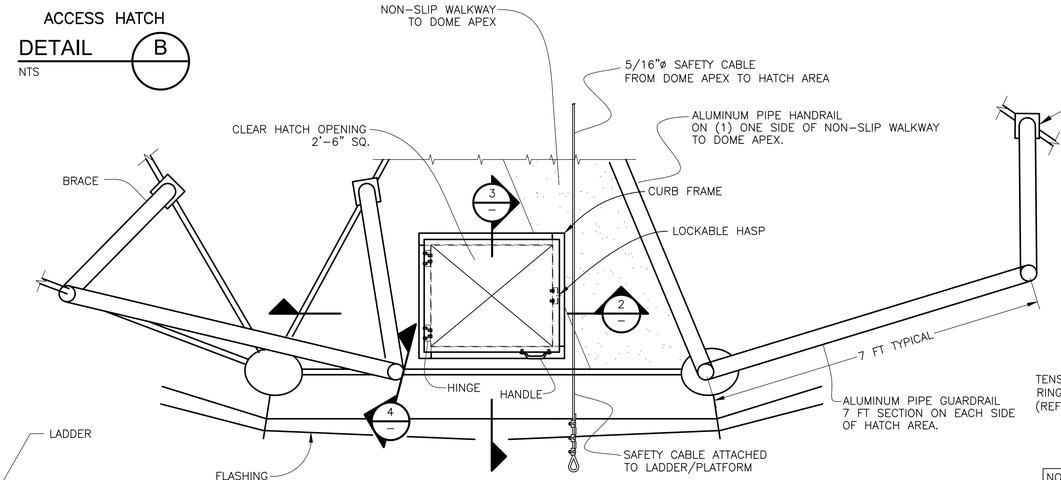
ACCESS HATCH
DETAIL B
NTS



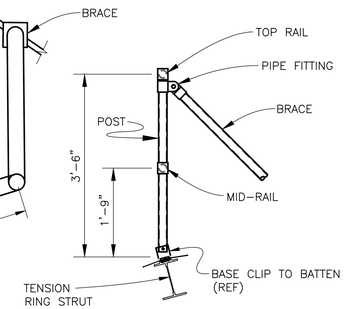
WITH HATCH OPEN
SECTION 1
NTS



SECTION 2
NTS



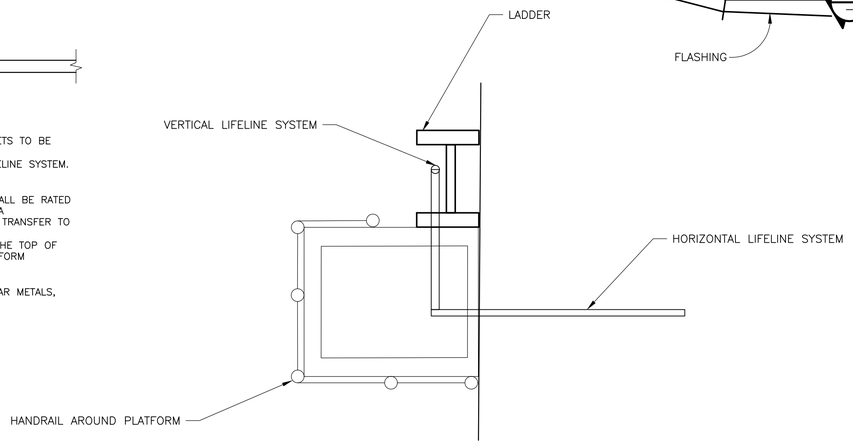
HATCH PLAN
N.T.S.



SECTION 4
NTS

NOTES:

- HATCH FRAME AND COVER ARE ALL ALUMINUM CONSTRUCTION
- FLASHING NOT TO BE STEPPED ON



STEP-OFF PLATFORM
PLAN
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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11 British American Boulevard, Airport Park, Suite 200
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Tel: (518) 782-4500

VEOLIA

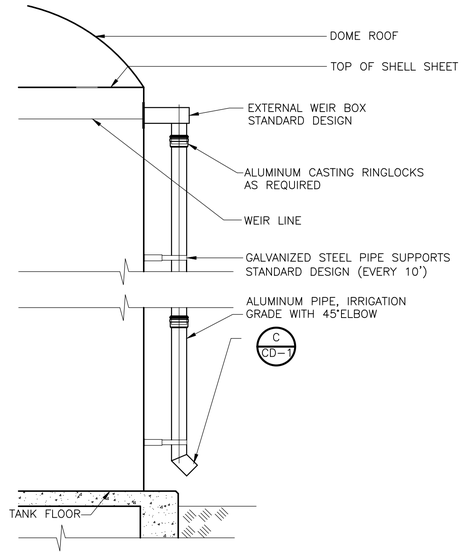
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

GLASS FUSED TO STEEL TANK PLAN, SECTION AND ELEVATION

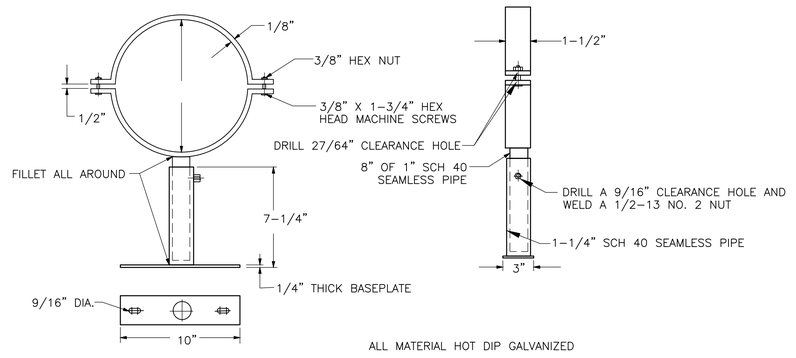
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL004

SHEET NO.
T-4



OVERFLOW DOME ROOF 45 DEGREE

DETAIL A
NTS

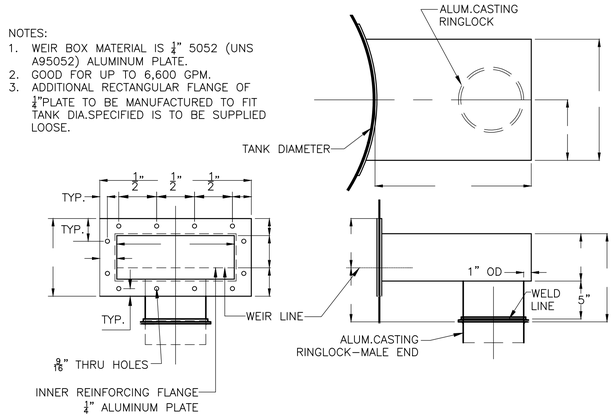


ALL MATERIAL HOT DIP GALVANIZED

PIPE SUPPORT BRACKETS

DETAIL B
NTS

NOTES:
1. WEIR BOX MATERIAL IS $\frac{1}{4}$" 5052 (UNS A95052) ALUMINUM PLATE.
2. GOOD FOR UP TO 6,600 GPM.
3. ADDITIONAL RECTANGULAR FLANGE OF $\frac{1}{4}$"PLATE TO BE MANUFACTURED TO FIT TANK DIA.SPECIFIED IS TO BE SUPPLIED LOOSE.



WEIR BOX

DETAIL C
NTS

STUDDED FLOOR FLANGE
BOLT PACKS
DI BASE ELBOW
DI 90 ELBOW
PVC SCH 80 (20' LENGTHS)
ADAPTOR FLANGES

FLOOR PIPING SUPPORT

DETAIL D
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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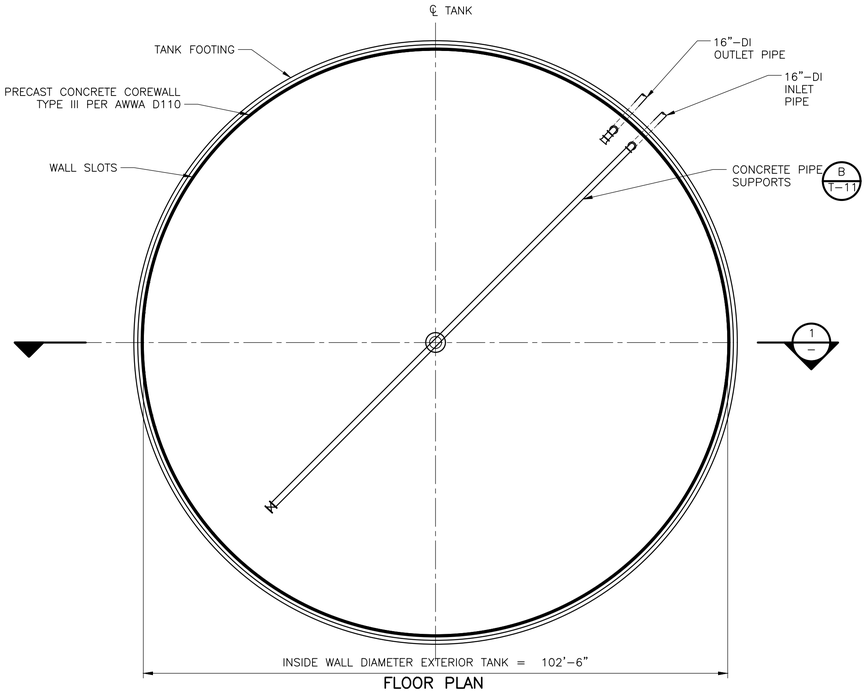
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

GLASS FUSED TO STEEL
TANK PLAN, SECTION AND ELEVATION

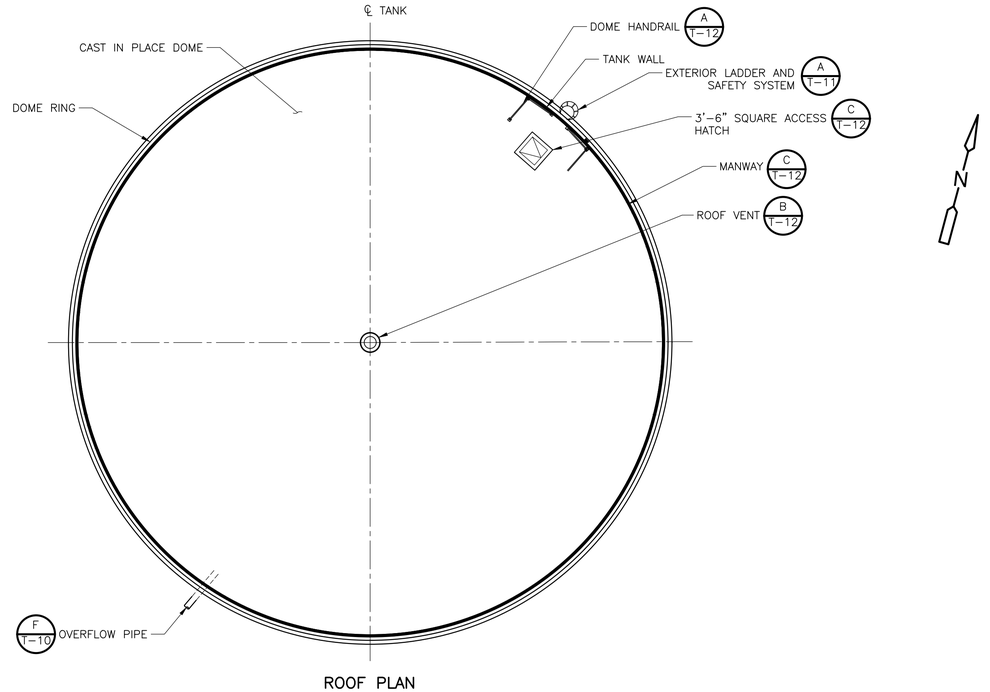
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL005

SHEET NO.
T-5



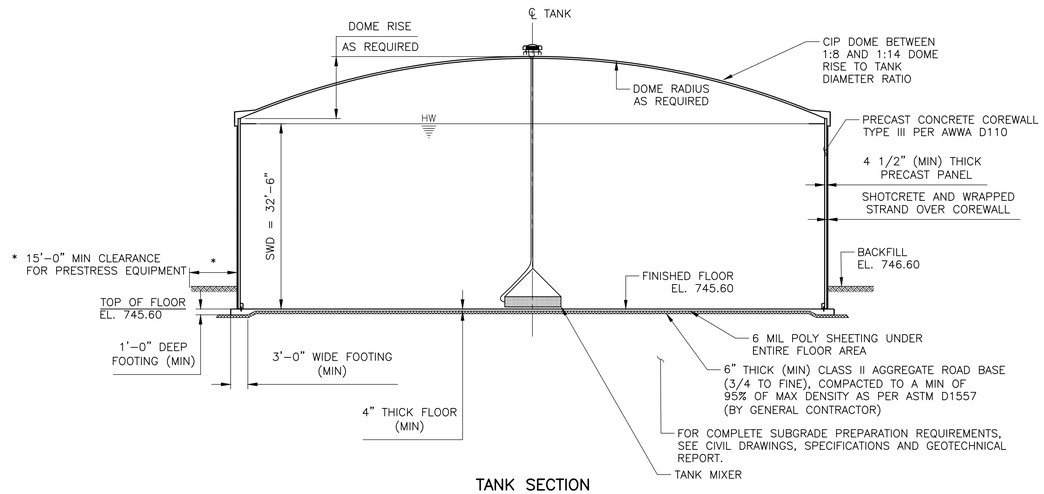
FLOOR PLAN

DETAIL A
NTS



ROOF PLAN

DETAIL B
NTS



TANK SECTION

SECTION 1
NTS

GENERAL NOTES:
*ALL DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS. TANK CONTRACTOR TO VERIFY DIMENSIONS WITH STRUCTURAL CALCULATIONS.

A. DESIGN LOADS
1. ROOF LOAD : 20.0 PSF LIVE; 30.0 PSF SNOW
2. LIQUID (WATER) : 62.4PCF
3. Ri, IMPULSIVE STRUCTURAL RESPONSE COEFFICIENT : 3.25 (ASCE 7 WITH CABLES) 1.50 (ASCE 7 W/O CABLES) 3.50 (AWWA WITH CABLES) 1.50 (AWWA W/O CABLES)
4. Rc, CONVECTIVE STRUCTURAL RESPONSE COEFFICIENT : 1.0
5. ANALYSIS PROCEDURE USED : EQUIVALENT LATERAL FORCE ANALYSIS BASED ON AWWA D110 AND ACI 350.3

B. CONCRETE AND SHOTCRETE
1. FLOOR, AND FOOTINGS : 4000 PSI
2. DOME, DOME RING AND DOME SLOTS : 4000 PSI
3. PRECAST WALL : 4000 PSI
4. SHOTCRETE FOR WIRE COVER (1C:3S) AND COVER COAT (1C:4S) : 4500 PSI
5. SEE TECHNICAL SPECIFICATION FOR COMPLETE MIX DESIGN INFORMATION INCLUDING MINIMUM CEMENT CONTENT, MAXIMUM WATER–CEMENT RATIO, AGGREGATE SIZE AND ACCEPTABLE ADMIXTURES.
6. SEE TECHNICAL SPECIFICATION FOR CONCRETE PLACING AND FORMING PROCEDURES.

C. METALS
1. ALL STAINLESS STEEL (SST) TO BE 304L UNLESS OTHERWISE NOTED.

D. REINFORCING STEEL
1. ALL REINFORCING IN TANK SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
2. REINFORCING STEEL CALLED OUT AS GALVANIZED SHALL HAVE A CLASS 1 COATING IN ACCORDANCE WITH ASTM A767, WITHOUT CHROMATE.

E. EARTHWORK REQUIREMENTS
1. MINIMUM COMPACTION OF CRUSHED ROCK AND SUBGRADE UNDER AND AROUND PIPE BLOCKS AND UNDER FLOOR AND FOOTINGS SHALL EQUAL 95% RELATIVE COMPACTION AS DETERMINED IN ACCORDANCE WITH ASTM D1557.
2. COMPACTION OF BACKFILL AROUND TANK SHALL EQUAL 90% RELATIVE COMPACTION AS DETERMINED IN ACCORDANCE WITH ASTM D1557. USE ONLY HAND HELD COMPACTION EQUIPMENT WITHIN 5' OF TANK WALL AND LIGHTWEIGHT EQUIPMENT (15,600 LBS MAX) BEYOND THE 5' AND WITHIN 15' OF THE TANK SO AS NOT TO DAMAGE THE WALL. BRING UP THE BACKFILL AROUND THE TANK IN UNIFORM LIFTS WHEN POSSIBLE. DIFFERENCE IN BACKFILL HEIGHTS DURING INSTALLATION SHALL NEVER EXCEED THE FINAL DIFFERENCE IN BACKFILL HEIGHTS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

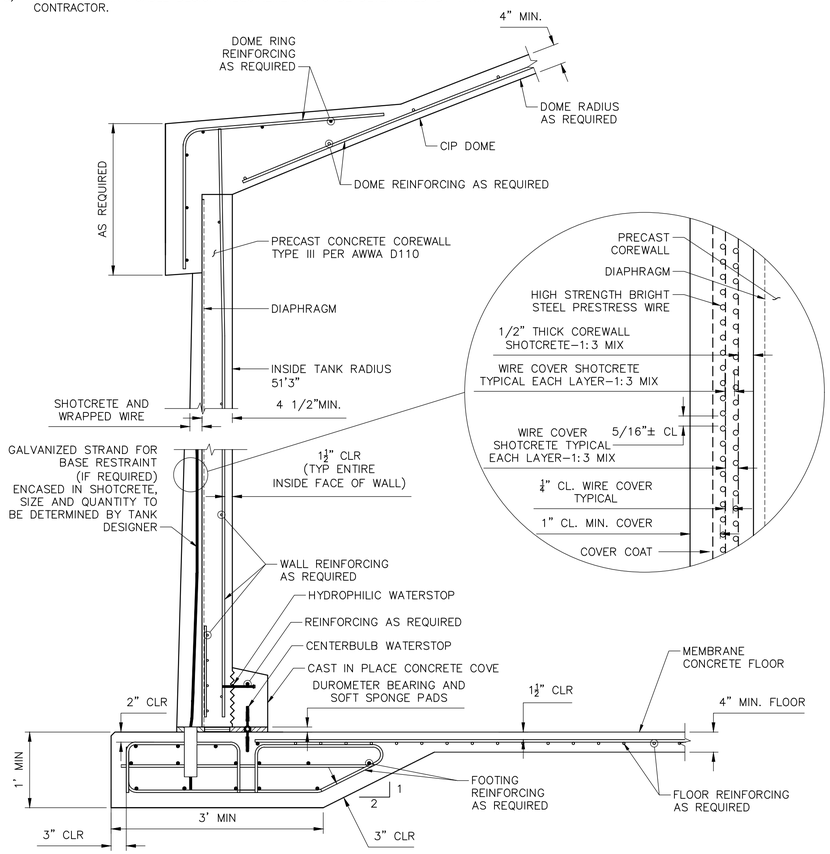
NEW HAVERSTRAW TANK

PRESTRESSED CONCRETE TANK
TANK PLAN, SECTION AND ELEVATION

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: TNKPL008

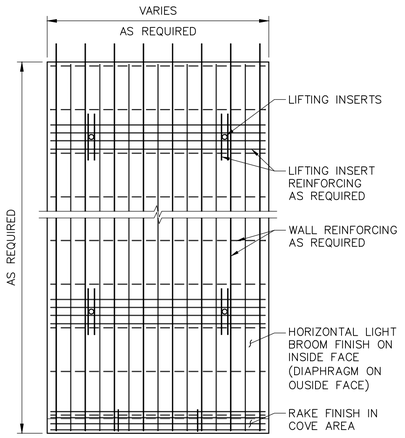
SHEET NO.
T-8

NOTES:
1) FOOTING AND FLOOR TO BE FINISHED PER SPECIFICATIONS.
2) MAINTAIN CLEARANCE BETWEEN THE INDIVIDUAL STRANDS IN THE BASE RESTRAINT CABLE SETS (DO NOT BUNDLE). CABLES MAY TOUCH WITHIN 2' OF THE BOOT.
3) THE ROOF AND THE COMBINED FLOOR AND WALL FOOTING SHALL BE POURED MONOLITHICALLY UNLESS APPROVED BY THE ENGINEER.
4) BASE RESTRAINT CABLES MAY BE BENT PRIOR TO INSTALLATION.
5) BASE RESTRAINT CABLE DESIGN REQUIREMENTS TO BE DETERMINED BY TANK CONTRACTOR.



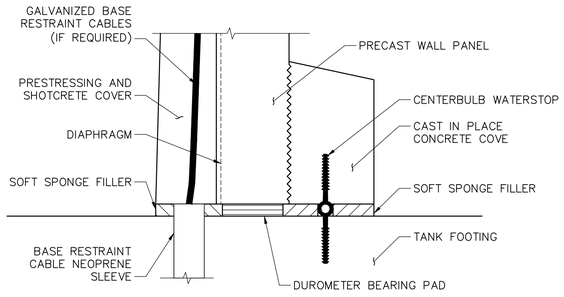
FOOTING, WALL AND ROOF SECTION

SECTION 1 / NTS / –



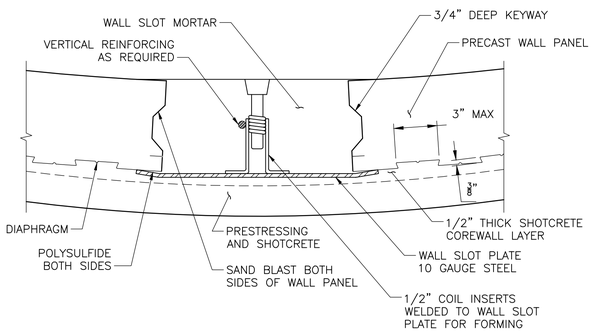
PRECAST WALL PANEL

DETAIL A / NTS / –



WALL BASE

DETAIL B / NTS / –



WALL SLOT

DETAIL C / NTS / –

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
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Latham, NY 12110
Tel: (518) 782-4500

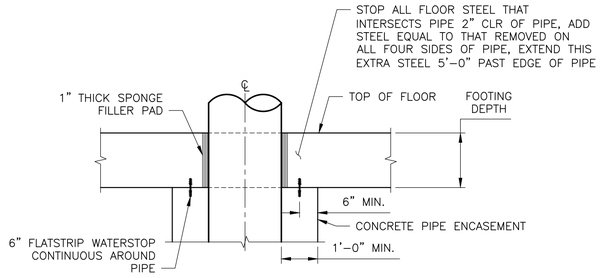
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

PRESTRESSED CONCRETE
TANK PLAN, SECTION AND ELEVATION

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: TNKPL009

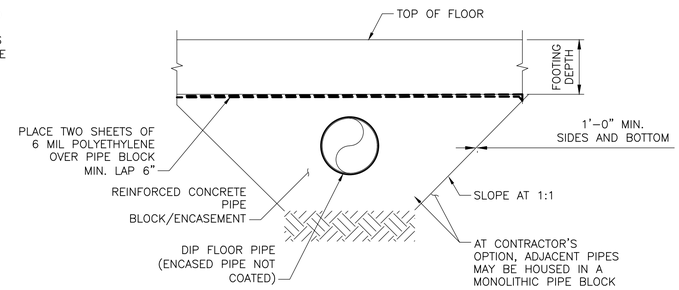
SHEET NO.
T-9



TYPICAL FLOOR PIPE ENTRANCE

DETAIL A

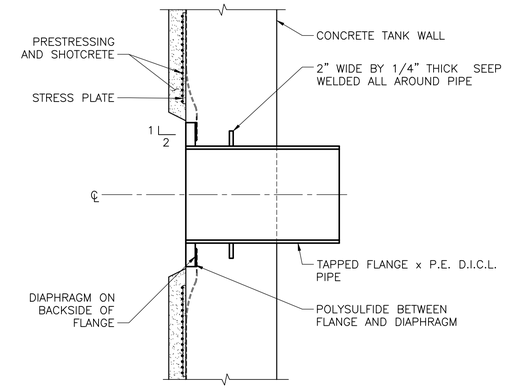
NTS



PIPE SECTION

DETAIL B

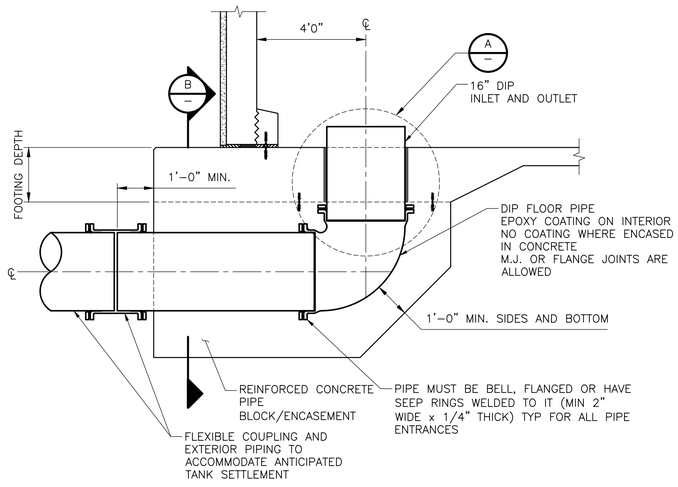
NTS



TYPICAL WALL PIPE ENTRANCE

DETAIL C

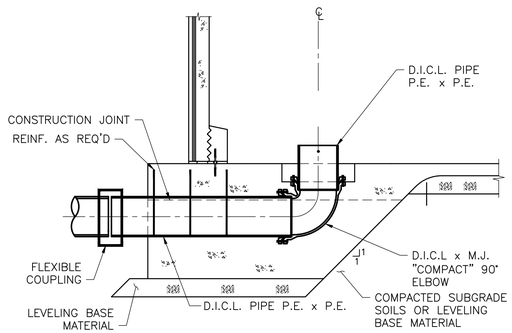
NTS



TYPICAL FLOOR PIPE ENTRANCE

DETAIL D

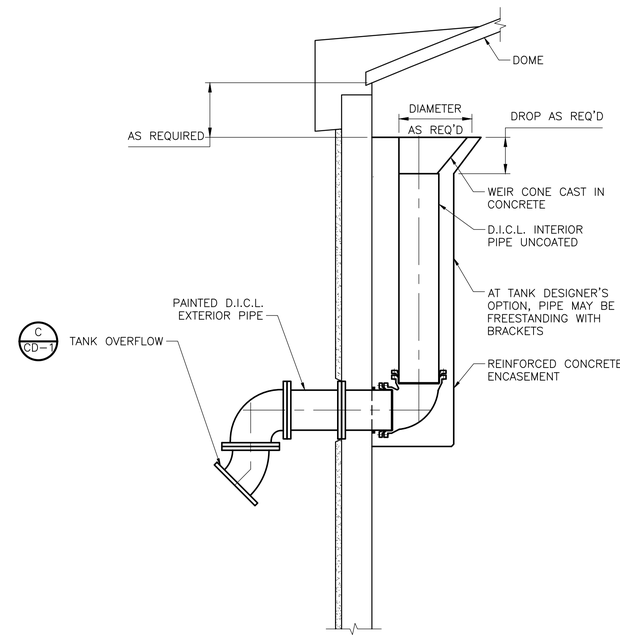
NTS



INLET AND OUTLET

DETAIL E

NTS



OVERFLOW PIPE

DETAIL G

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	11/22	RWH	GRS	REVISED BASED ON REGULATORY REVIEW COMMENTS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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VEOLIA

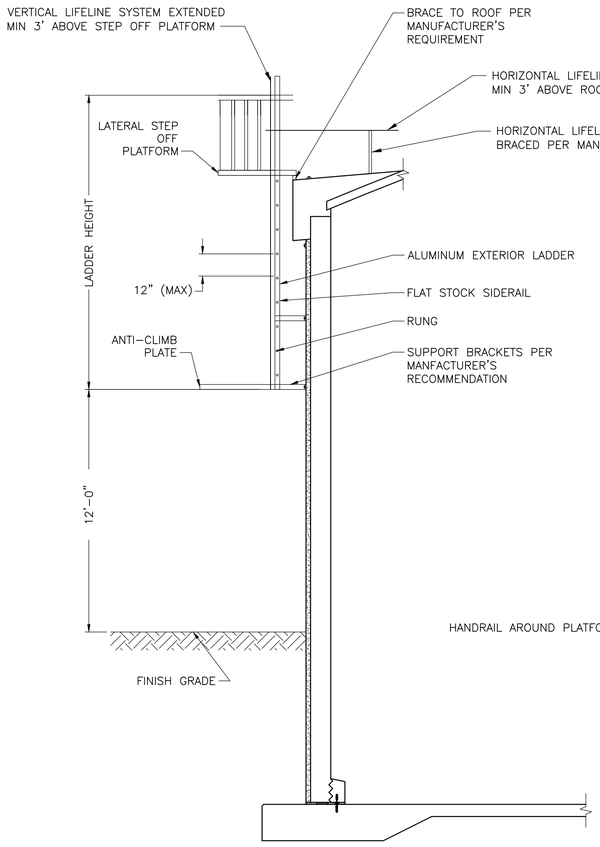
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

PRESTRESSED CONCRETE TANK PLAN, SECTION AND ELEVATION

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL010

SHEET NO.
T-10



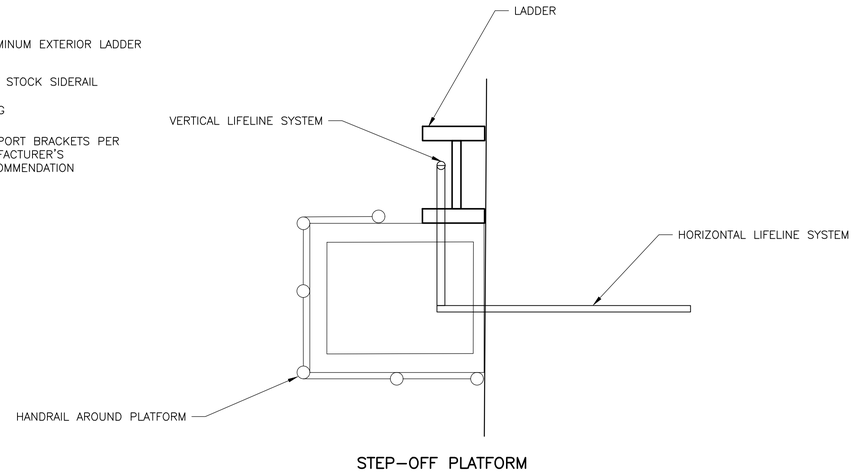
EXTERIOR LADDER NOTES:

1) ALL MATERIAL FOR EXTERIOR LADDER, SIDERAILS, RUNGS, AND BRACKETS TO BE 6061-T6 ALUMINUM.
2) 3M LAD-SAF X2. SAFETY LIFELINE SHALL BE USED FOR VERTICAL LIFELINE SYSTEM. SYSTEM SHALL HAVE SAFETY CABLE GRAB.
3) EXTERIOR LADDERS SHALL NOT HAVE A FALL CAGE.
4) A LATERAL STEP-OFF PLATFORM TO BE PROVIDED. THE PLATFORM SHALL BE RATED FOR 5000-LBS PER PERSON ATTACHED. THE PLATFORM SHALL HAVE A CONTINUATION OF THE SAFETY CABLE. PERSONNEL MUST BE ABLE TO TRANSFER TO THE HORIZONTAL LIFELINE SYSTEM AT THE STEP-OFF PLATFORM.
5) VERTICAL SAFETY CABLE SHALL EXTEND A MINIMUM OF 3-FT ABOVE THE TOP OF RAIL OF THE STEP-OFF PLATFORM. THERE IS TO BE NO BELOW-PLATFORM DISCONNECT.
6) LADDER WRUNGS TO BE SOLID BARS AND KNURLED.
7) ALL ALUMINUM THAT COMES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS, SHALL BE COATED AND INSULATED.

EXTERIOR LADDER AND SAFETY SYSTEM

DETAIL A

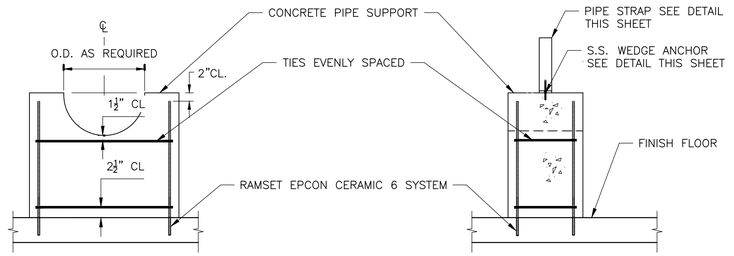
NTS



STEP-OFF PLATFORM

PLAN

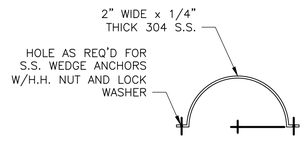
NTS



FRONT SIDE

NOTE:

1. PIPE SUPPORTS TO BE CAST AFTER PIPE HAS BEEN INSTALLED/PLACED IN FORM.



SIDE

CONCRETE PIPE SUPPORT

DETAIL B

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

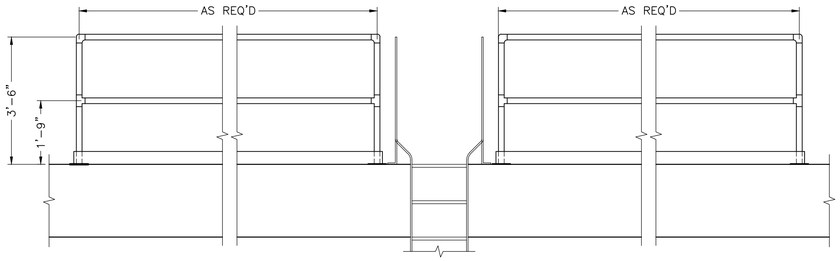
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

PRESTRESSED CONCRETE TANK PLAN, SECTION AND ELEVATION

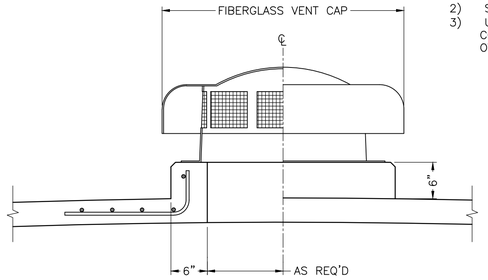
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL011

SHEET NO.
T-11



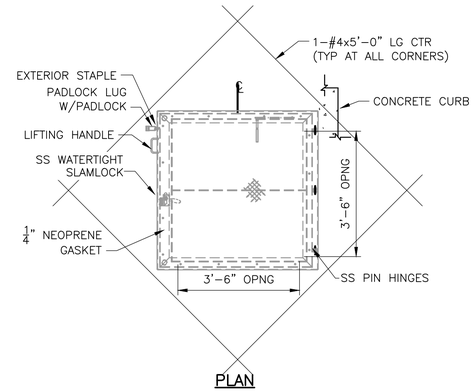
GUARDRAIL NOTES:
1) ALL MATERIAL FOR RAILS AND POSTS TO BE 6061-T6 ALUMINUM.
2) HANDRAIL FITTINGS SHALL BE SPEEDRAIL BY HOLLAENDER, INC OR EQUAL.
3) HORIZONTAL RAILS AND POSTS TO BE 1 1/2" SCH 80 PIPE.
4) HOLLAENDER BEVELED TOE BOARD SHALL BE ATTACHED TO FRONT RAIL.
5) USE SST FOR ALL BOLTS UNLESS NOTED OTHERWISE.
6) USE SST WEDGE ANCHORS FOR ALL CONNECTIONS TO CONCRETE UNLESS NOTED OTHERWISE.

GUARDRAIL
DETAIL A
NTS

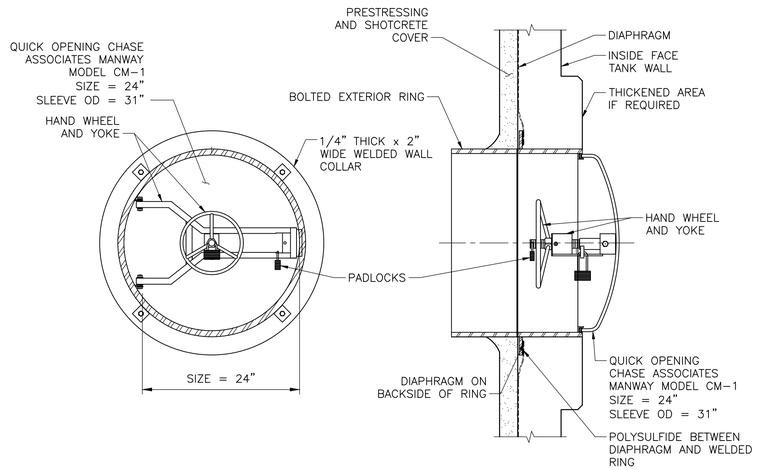


ROOF VENT NOTES:
1) VENT TO BE FIBERGLASS REINFORCED POLYMER.
2) SIZE PER PROJECT VENTING RATES.
3) USE SST WEDGE ANCHORS FOR ALL CONNECTIONS TO CONCRETE UNLESS NOTED OTHERWISE.

ROOF VENT
DETAIL B
NTS



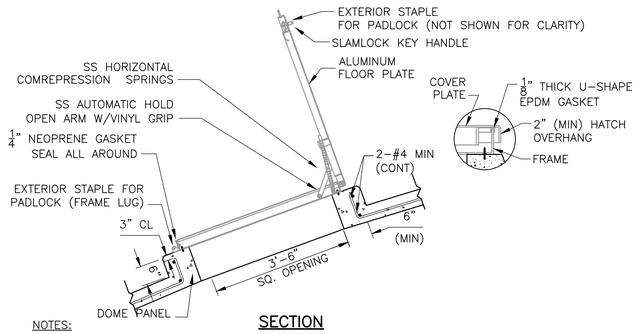
PLAN



SECTION 1
NTS

WALL MANWAY NOTES:
1) MANWAY MATERIAL TO BE SST.
2) THE MANWAY WILL BE CAST INTO THE WALL AND THE EXTERIOR MANWAY RING WILL BE BOLTED ON AFTER TANK PRESTRESSING IS COMPLETE, PRIOR TO FINAL COVERCOAT PLACEMENT.

WALL MANWAY
DETAIL C
NTS



SECTION

NOTES:
1. ALL ALUMINUM SHALL BE ISOLATED FROM CONCRETE BY A NEOPRENE GASKET.
2. COVER HATCH WITH POLYETHYLENE FOR PROTECTION DURING CONSTRUCTION.
3. ONE (1) HATCH REQUIRED.
4. HATCH TO BE SECURED TO CURB WITH SS WEDGE ANCHORS EACH SIDE (16 REQUIRED).

DOME HATCH
DETAIL D
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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Tel: (518) 782-4500

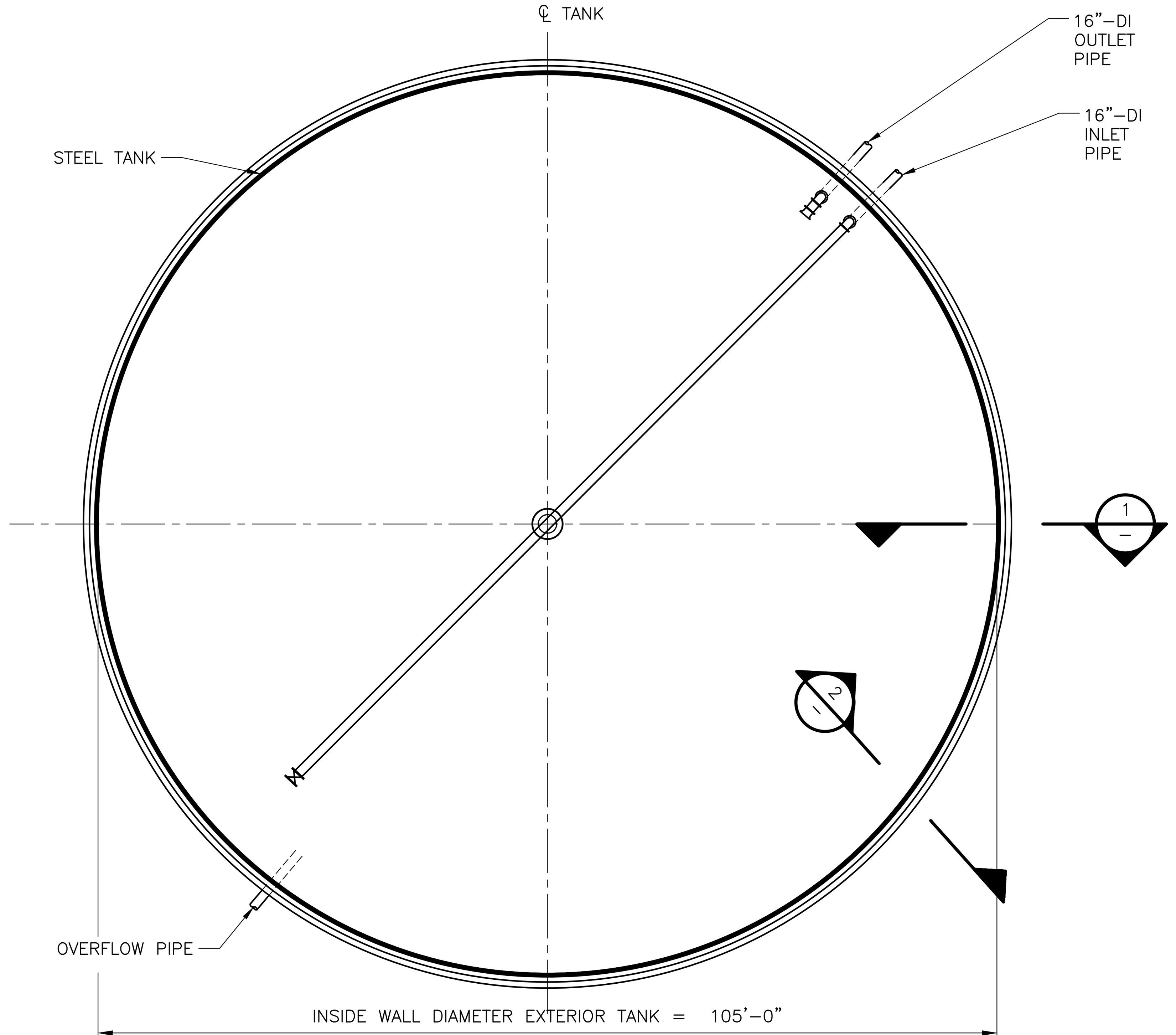
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

PRESTRESSED CONCRETE
TANK PLAN, SECTION AND ELEVATION

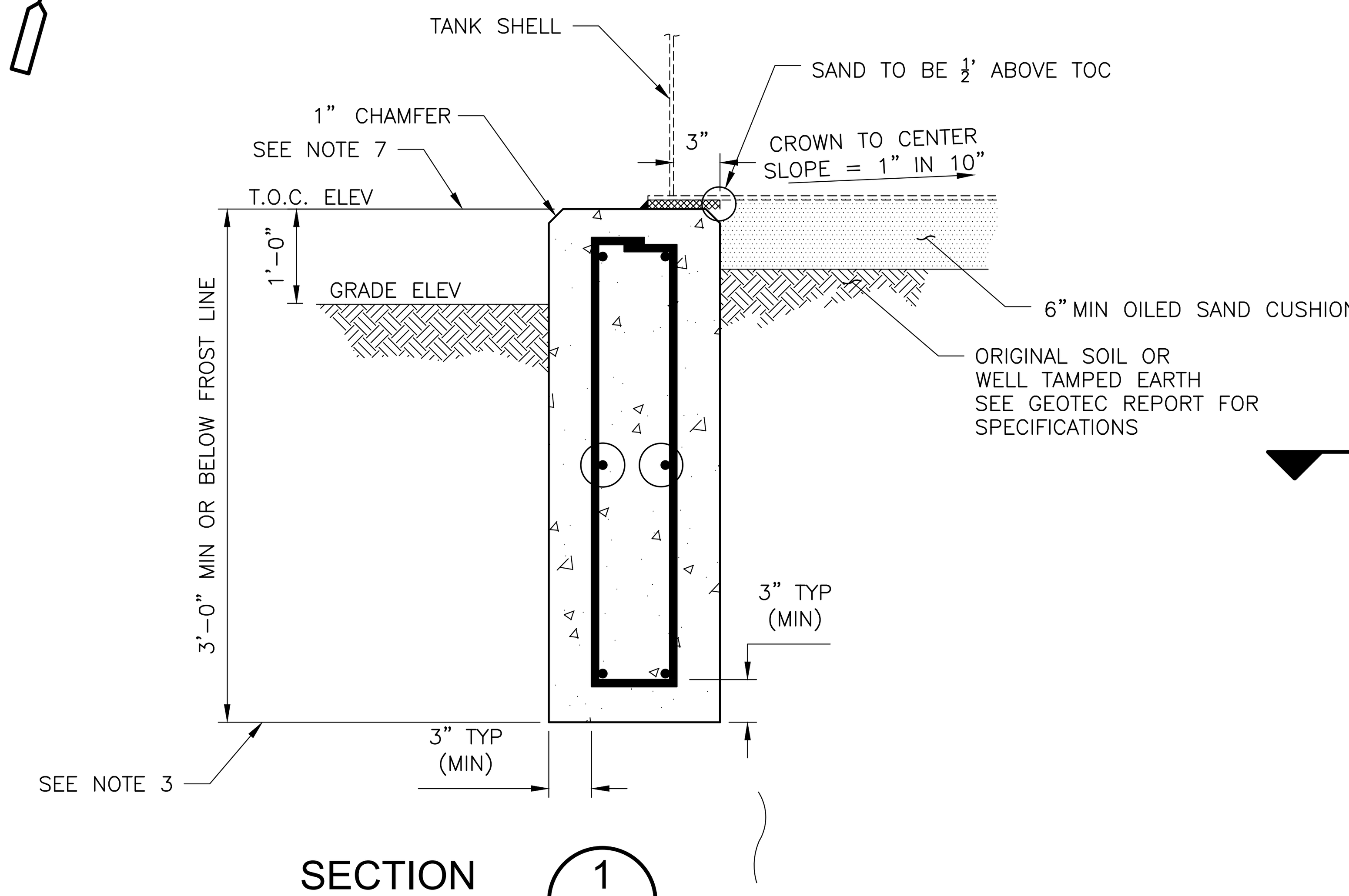
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL012

SHEET NO.
T-12

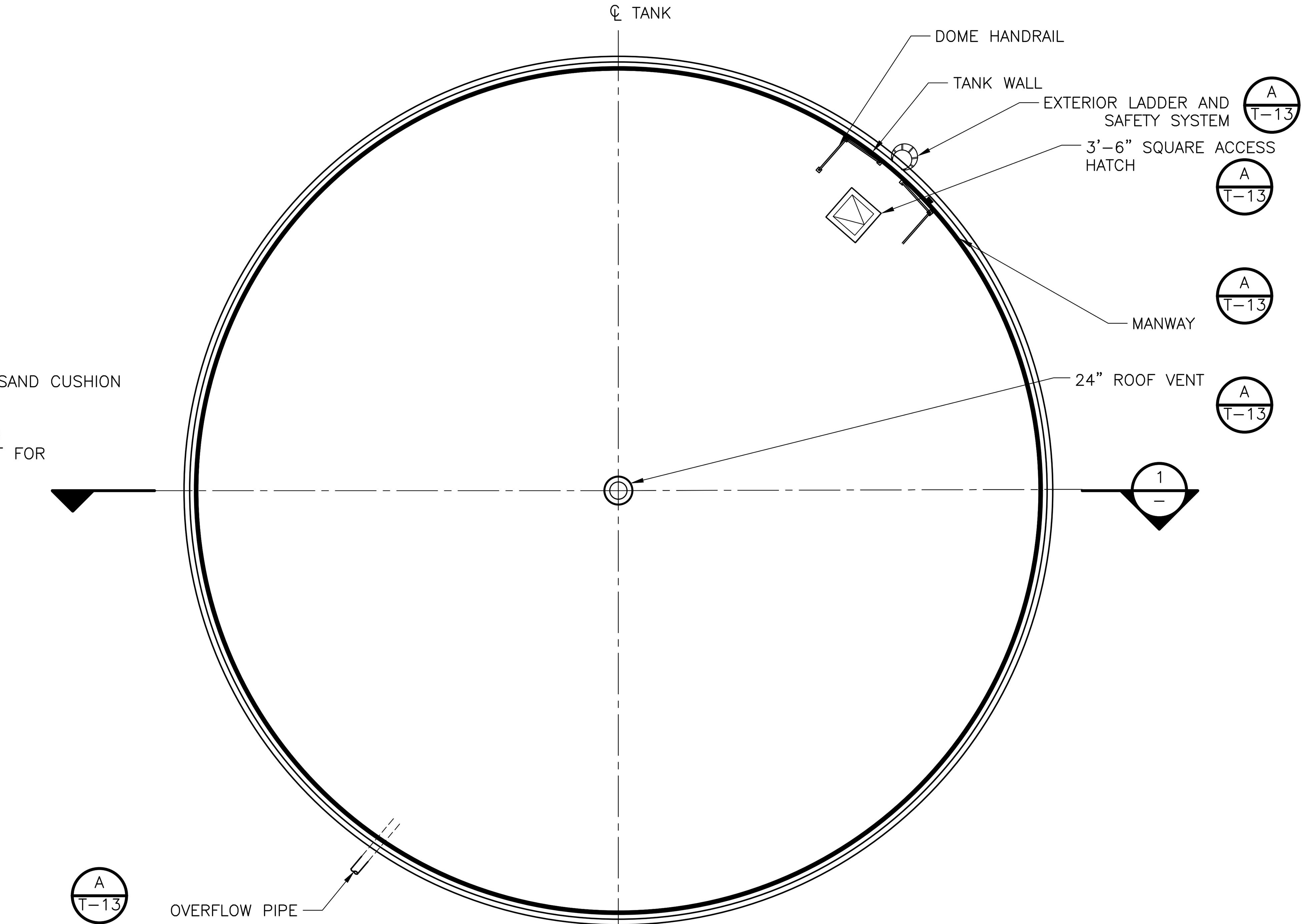


FLOOR PLAN

DETAIL A
NTS



SECTION 1
NTS

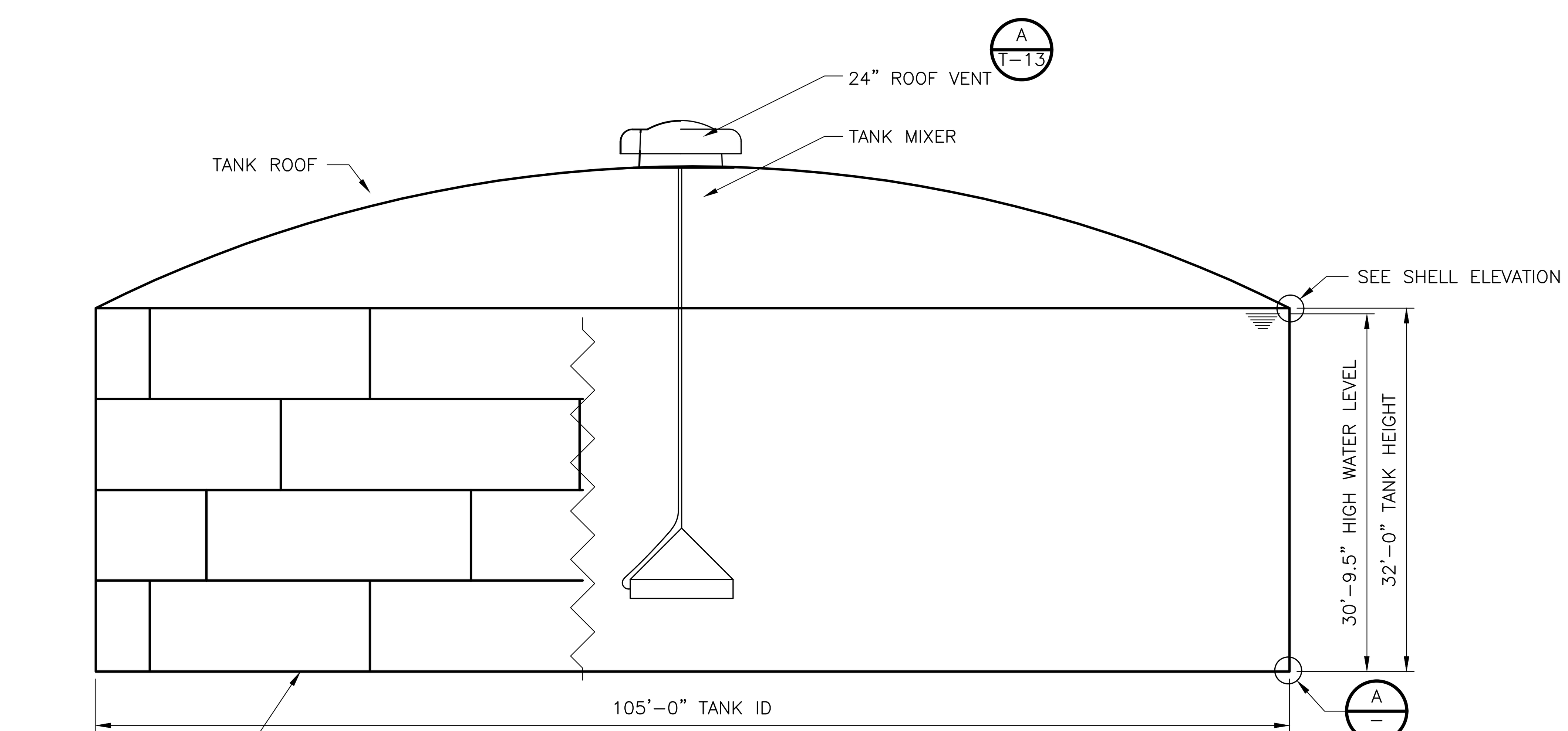


ROOF PLAN

DETAIL B
NTS

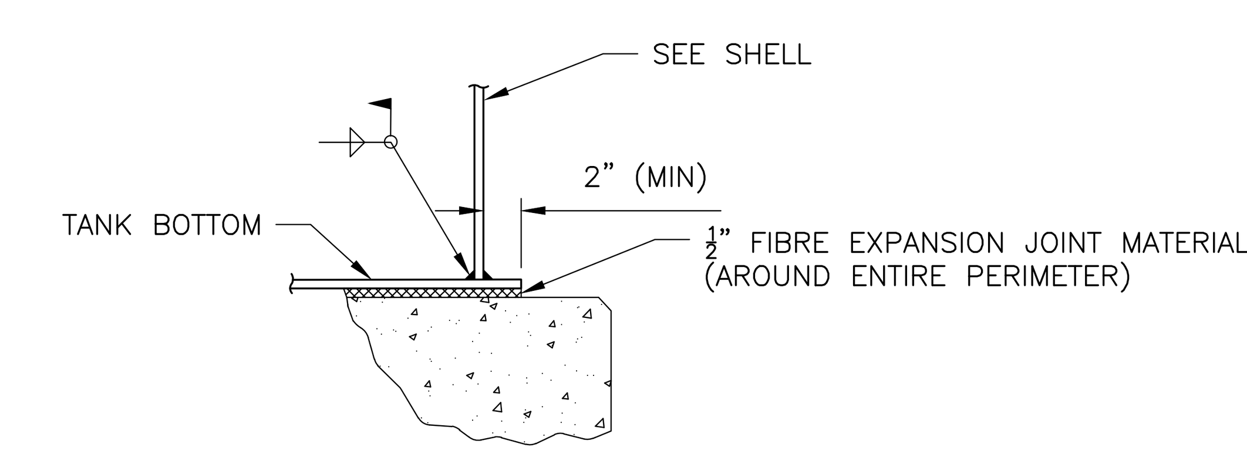
NOTES:

1. TANK SHALL CONFORM TO ALL REQUIREMENTS OF AWWA D100 STANDARD FOR WELDED STEEL TANKS FOR WATER STORAGE.
2. BOTTOM OR RINGWALL TO BE BELOW FROST LINE.
3. CONCRETE STRENGTH SHALL BE 4,000 PSI @ 28 DAYS.
4. MINIMUM LAP = 49 BAR DIAMETERS.
5. SOIL BEARING CAPACITY = 3,000 PSF
6. TANK FOUNDATION TO BE LEVEL ± ⅛" IN 30' OF CIRCUMFERENCE AND NO POINT SHOULD VARY MORE THAN 4" FROM AN ESTABLISHED ELEVATION.
7. REINFORCING STEEL TO BE ASTM A615 GR.60.



TANK

ELEVATION
NTS



DETAIL A
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
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DATE: JUNE 2021

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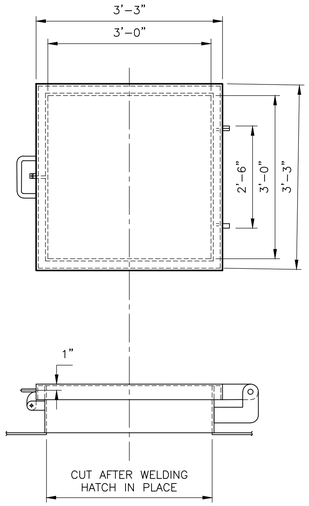
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

WELDED STEEL
TANK PLAN, ELEVATION AND DETAILS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: TNKPL013

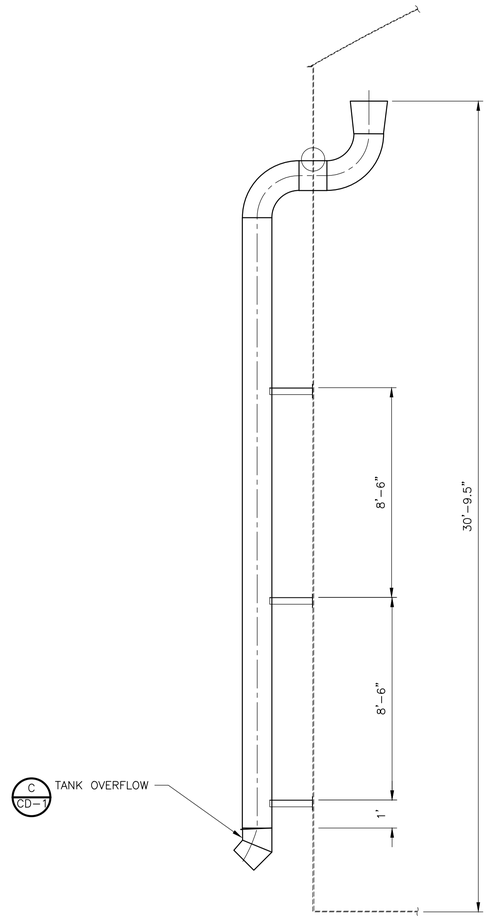
SHEET NO.
T-13



36" SQUARE ROOF HATCH

DETAIL A

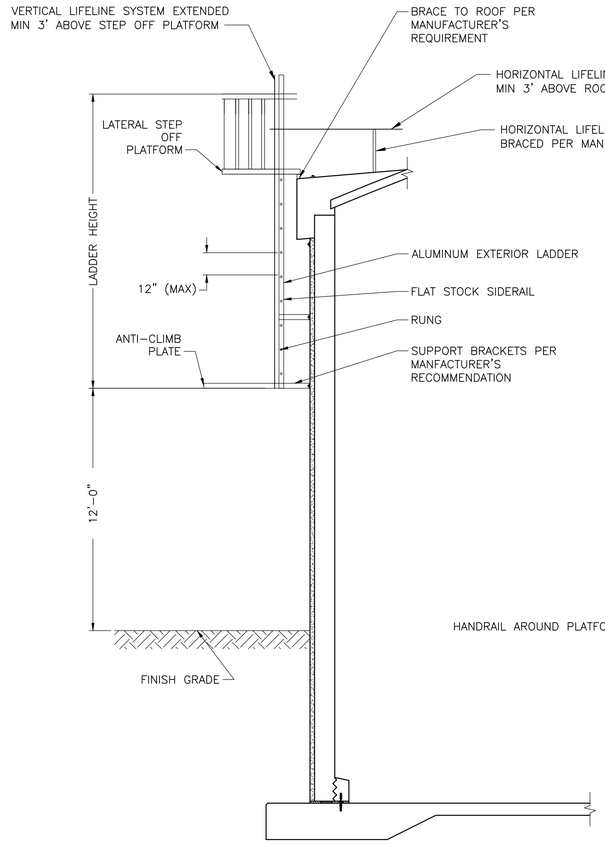
NTS



16" PIPE OVERFLOW

DETAIL B

NTS



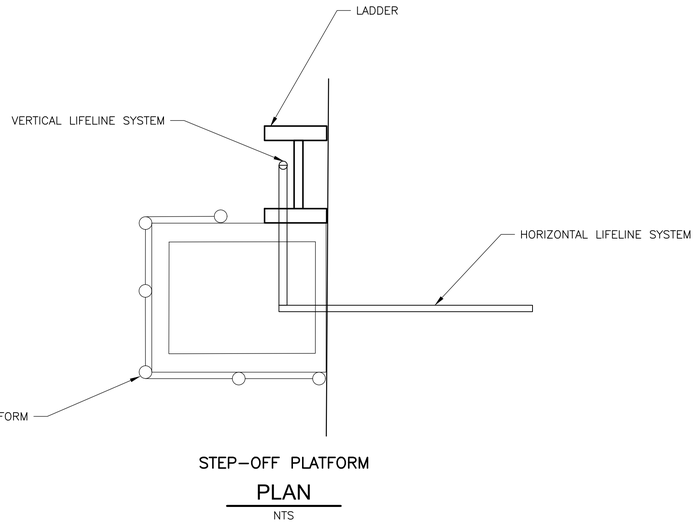
EXTERIOR LADDER NOTES:

1) ALL MATERIAL FOR EXTERIOR LADDER, SIDERAILS, RUNGS, AND BRACKETS TO BE 6061-T6 ALUMINUM.
2) 3M LAD-SAF X2. SAFETY LIFELINE SHALL BE USED FOR VERTICAL LIFELINE SYSTEM. SYSTEM SHALL HAVE SAFETY CABLE GRAB.
3) EXTERIOR LADDERS SHALL NOT HAVE A FALL CAGE.
4) A LATERAL STEP-OFF PLATFORM TO BE PROVIDED. THE PLATFORM SHALL BE RATED FOR 5000-LBS PER PERSON ATTACHED. THE PLATFORM SHALL HAVE A CONTINUATION OF THE SAFETY CABLE. PERSONNEL MUST BE ABLE TO TRANSFER TO THE HORIZONTAL LIFELINE SYSTEM AT THE STEP-OFF PLATFORM.
5) VERTICAL SAFETY CABLE SHALL EXTEND A MINIMUM OF 3-FT ABOVE THE TOP OF RAIL OF THE STEP-OFF PLATFORM. THERE IS TO BE NO BELOW-PLATFORM DISCONNECT.
6) LADDER WRUNGS TO BE SOLID BARS AND KNURLED.
7) ALL ALUMINUM THAT COMES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS, SHALL BE COATED AND INSULATED.

EXTERIOR LADDER

DETAIL C

NTS



STEP-OFF PLATFORM

PLAN

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

WELDED STEEL
TANK DETAILS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL014

SHEET NO.
T-14

XREFs: [CDMS_2234] Images: []
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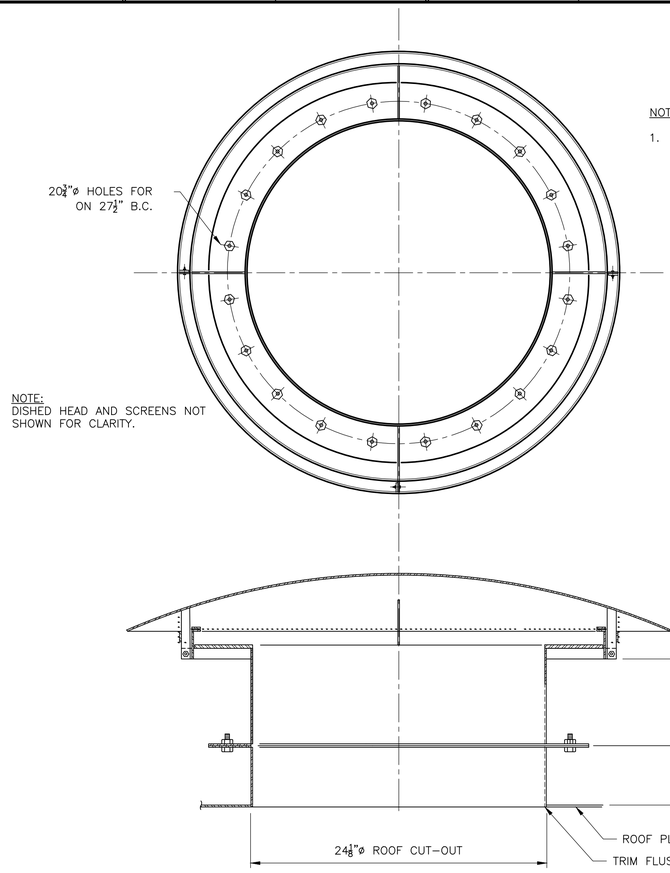


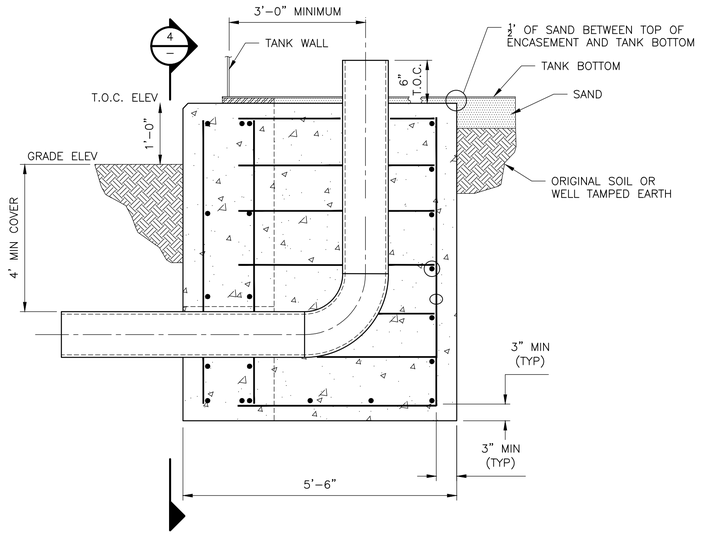
24" FROST FREE VENT WITH 24" OPENING

DETAIL A

NTS

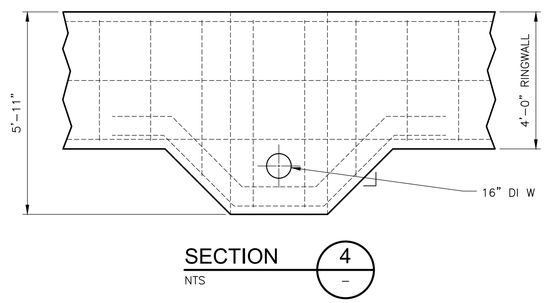
NOTE:

1. ALL CARBON STEEL TO BE SHOP COATED.



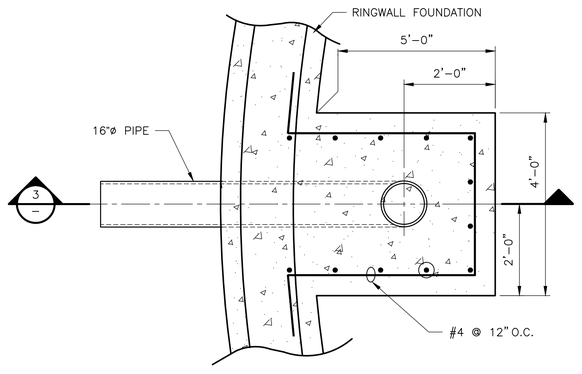
SECTION 3

NTS



SECTION 4

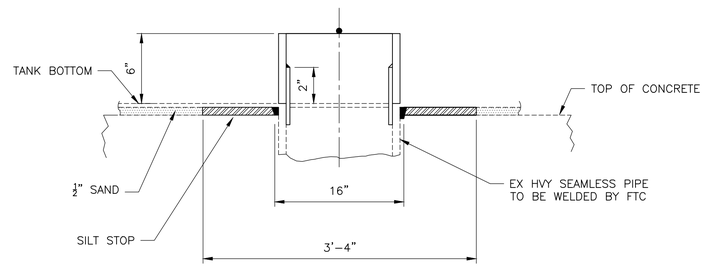
NTS



ENCASED 16" PIPE

PLAN

NTS



16" BOTTOM CONNECTION

DETAIL B

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

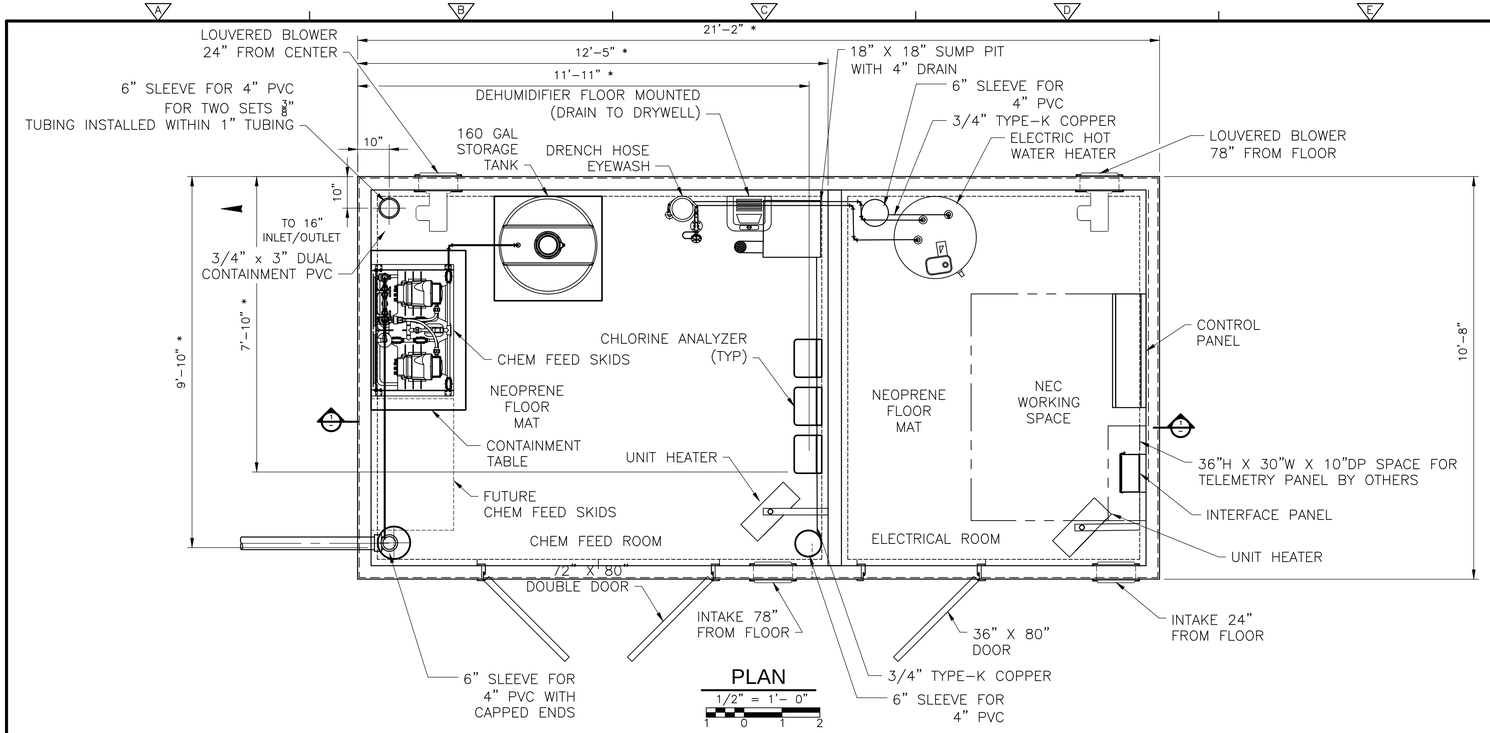
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

WELDED STEEL TANK SECTION AND DETAILS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: TNKPL015

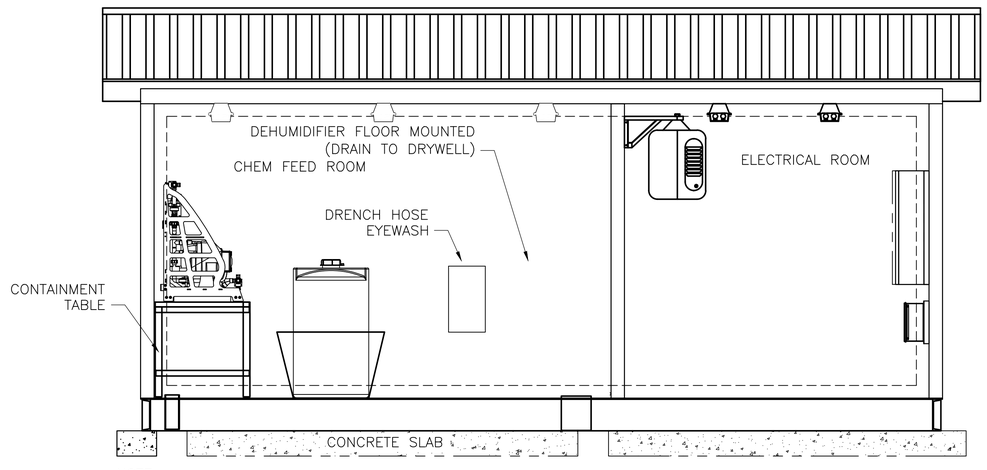
SHEET NO.
T-15



PLAN
1/2" = 1'- 0"
1 0 1 2

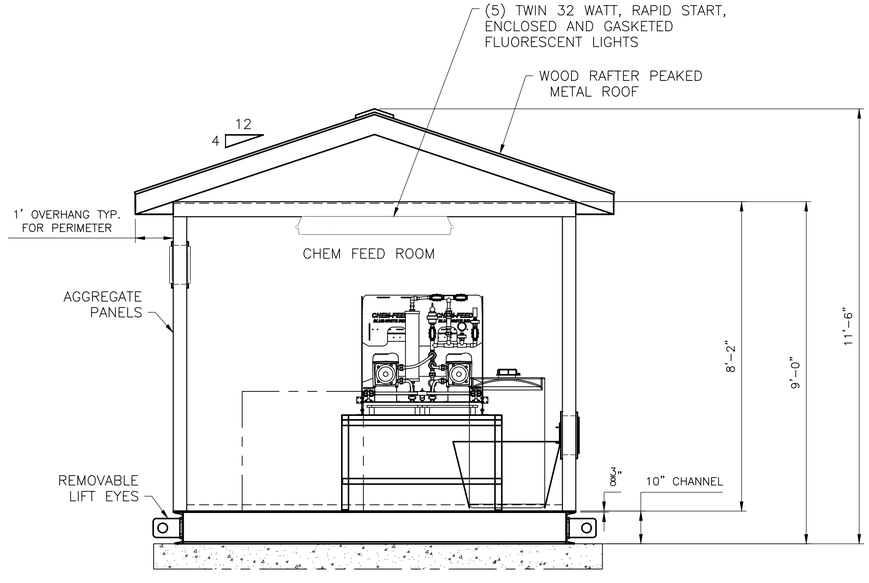
NOTES:

1. DIMENSIONS INDICATED WITH AN ASTERISK (*) TO BE CONFIRMED WITH STATION MANUFACTURER.
2. PRE-ENGINEERED BUILDING SHALL INCLUDE FAUX METAL ROOF @ 4/12 PITCH AND 4" CLAPBOARD VINYL SIDING (COLOR TO BE SELECTED BY TOWN).
3. PRE-ENGINEERED STATION MANUFACTURER SHALL PROVIDE PIPE SUPPORTS AS REQUIRED.
4. PRE-ENGINEERED MANUFACTURER SHALL SLOPE FLOORS TO SUMP AREAS.
5. CONTRACTOR SHALL STUB UP A 4" PVC BELL FOR CONNECTION TP 4" FLOOR DRAIN. CONTRACTOR SHALL COORDINATE WITH STATION MANUFACTURER ON LOCATION AND STUB LENGTH.



NOTE:
PIPE EXTERNAL TO STATION MUST BE INDEPENDENTLY SUPPORTED.

SECTION 1
1/2" = 1'- 0"
1 0 1 2



SECTION 2
1/2" = 1'- 0"
1 0 1 2

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

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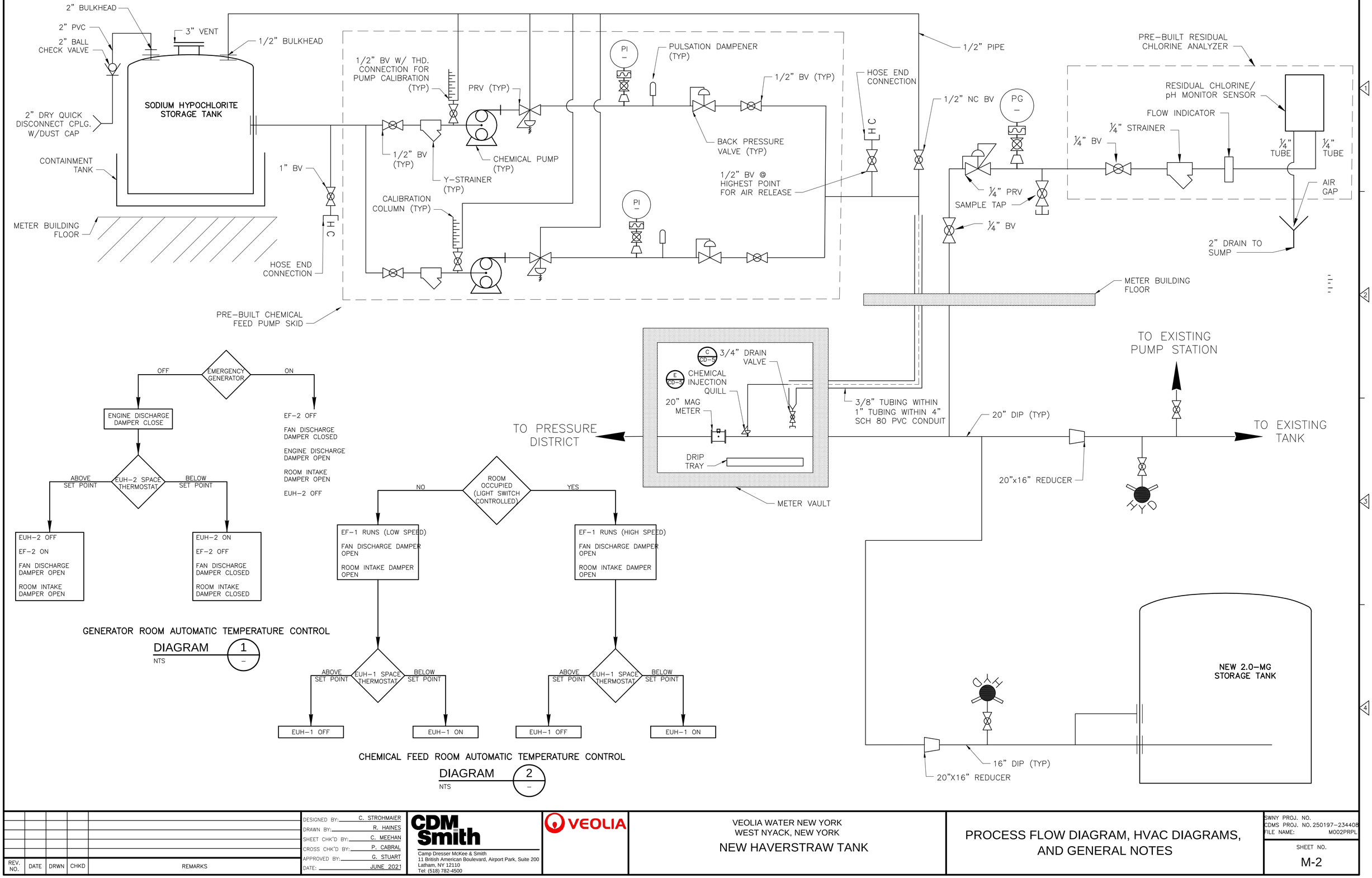
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

METER STATION
PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: M001PLMS

SHEET NO.
M-1



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

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WEST NYACK, NEW YORK

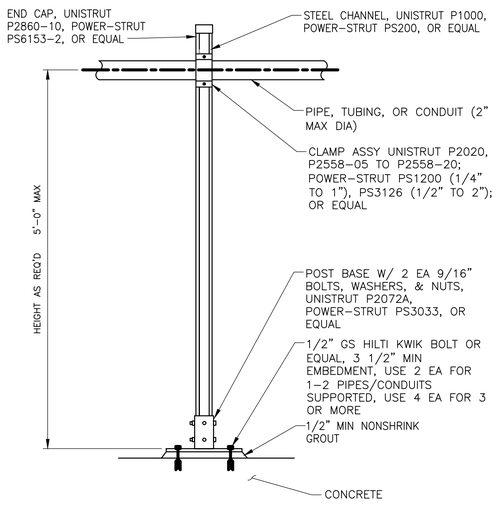
NEW HAVERSTRAW TANK

PROCESS FLOW DIAGRAM, HVAC DIAGRAMS, AND GENERAL NOTES

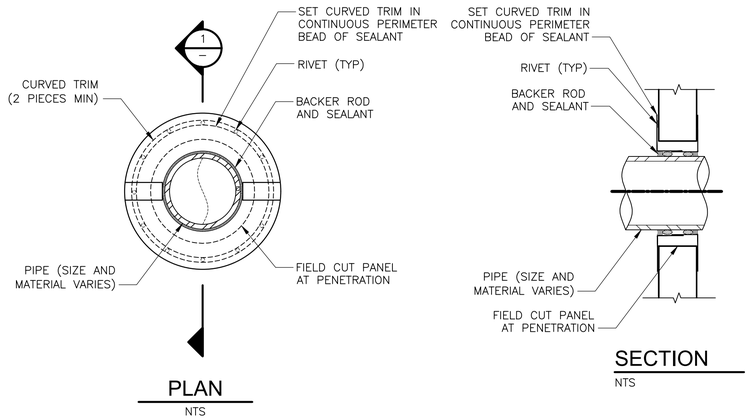
SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: M002PRPL

SHEET NO.
M-2

NOTE:
1. ALL CHANNEL AND FITTINGS SHALL BE HOT-DIPPED GALVANIZED, ALL CLAMPS AND FASTENERS SHALL BE ELECTRO-GALVANIZED.



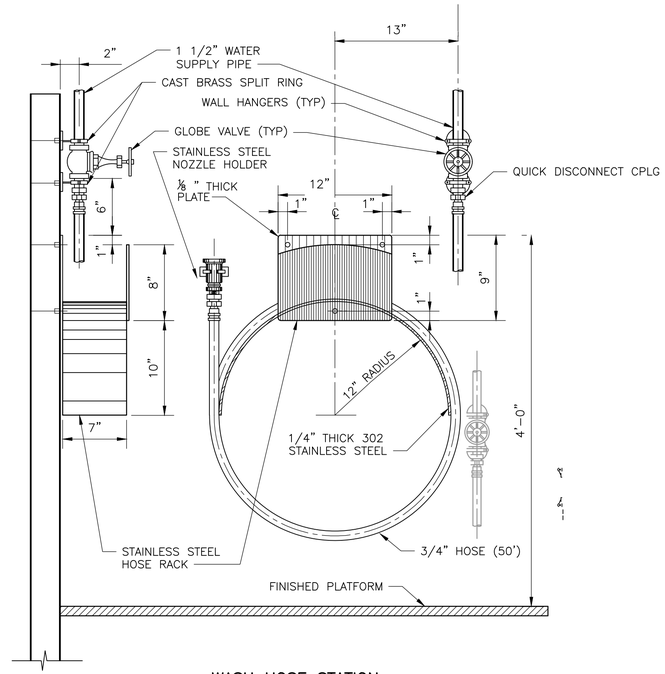
TYPICAL SMALL PIPING AND CONDUIT SUPPORT
DETAIL A
NTS



PLAN
NTS

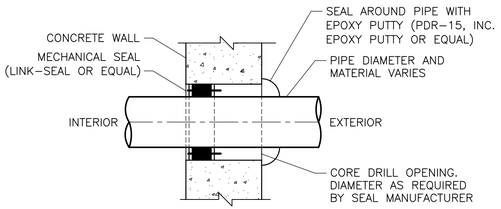
SECTION
NTS

WALL PENETRATION
DETAIL B
NTS



WASH HOSE STATION
DETAIL E
NTS

DOUBLE TUBING CHEMICAL FEED PIPE TERMINATION
DETAIL D
NTS



MECHANICAL SEAL FOR PIPE PENETRATIONS
DETAIL C
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. STROHMAIER
DRAWN BY: R. HAINES
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

MECHANICAL DETAIL I

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: MD01STDT

SHEET NO.
MD-1

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

SHARED DISPLAY/ SHARED CONTROL				
PRIMARY CHOICE	SECONDARY CHOICE	COMPUTER SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
◯	◇	⬡	◯	FIELD MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
◯	◇	⬡	◯	PRIMARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
◯	◇	⬡	◯	PRIMARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE
◯	◇	⬡	◯	SECONDARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
◯	◇	⬡	◯	SECONDARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE

◯◯ INSTRUMENTS SHARING COMMON HOUSING

PILOT LIGHT

MISCELLANEOUS SYMBOLS

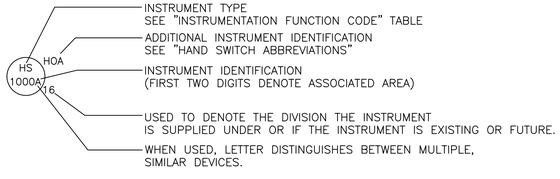
M — MOTOR

MS — INDICATES INTERLOCK OR LOGIC IN A MOTOR STARTER

I — INDICATES GENERAL OR MISCELLANEOUS HARDWIRED INTERLOCK

VFD — VARIABLE FREQUENCY DRIVE

TYPICAL TAG NUMBERS & DESIGNATION



HAND SWITCH ABBREVIATIONS

AO = AUTO/OFF
AM = AUTO/MANUAL
CM = COMPUTER/MANUAL
CL = COMPUTER/LOCAL
E-STOP = EMERGENCY STOP
FR = FORWARD/REVERSE
FOR = FORWARD/OFF/REVERSE
FS = FAST SLOW
FOS = FAST/OFF/SLOW
HOA = HAND/OFF/AUTO
LLS = LEAD/LAG/STANDBY
LOC = LOCAL/OFF/COMPUTER
LOR = LOCAL/OFF/REMOTE
LOS = LOCKOUT/STOP
LA = LOCAL/AUTO
LR = LOCAL/REMOTE
OC = OPEN/CLOSE
OCA = OPEN/CLOSE/AUTO
OO = ON/OFF
OOA = ON/OFF/AUTO
OSC = OPEN/STOP/CLOSE
RSL = RAISE/STOP/LOWER
SS = START/STOP
SOR = START/OFF/RESET

ELECTRICAL SOURCES

UPS - - - → ELECTRICAL SOURCE FROM PLC PANEL USING UPS POWER

INSTRUMENTATION FUNCTION CODE

	FIRST LETTERS		SUCCEEDING LETTERS		
	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
	MEASURED/INITIATING VARIABLE	VARIABLE MODIFIER	READOUT/PASSIVE FUNCTION	OUTPUT/ACTIVE FUNCTION	FUNCTION MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSED
D	USER'S CHOICE	DIFFERENCE, DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			FAULT
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE				MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	RUNNING
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL, ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL, PROBE		
X	UNCLASSIFIED (1)	X-AXIS	ACCESSORY DEVICES, UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y	EVENT, STATE, PRESENCE	Y-AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z-AXIS, SAFETY INSTRUMENT SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED, FINAL CONTROL ELEMENT	

TABLE NOTES:
(1) WHEN USED SYMBOL OR SIGNAL LINE IS ANNOTATED.

INSTRUMENT LINE SYMBOLS

---------- ELECTRICAL SIGNAL

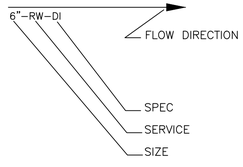
------V-----V-----V------ VENDOR SUPPLIED CABLE

COMMUNICATION LINK - ETHERNET I/P

COMMUNICATION LINK - FIBER OPTICS

CAT6 CABLE

TYPICAL PIPE TAG NUMBERS & DESIGNATION



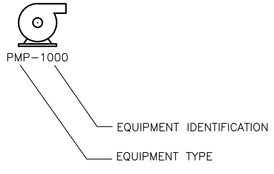
PIPE SPEC

DI	DUCTILE IRON
FRP	FIBERGLASS REINFORCED PLASTIC
HDPE	HIGH DENSITY POLYETHYLENE
PVC_40	POLYVINYL CHLORIDE SCHEDULE 40 PIPE
PVC_80	POLYVINYL CHLORIDE SCHEDULE 80 PIPE
SS304	STAINLESS STEEL 304 GRADE

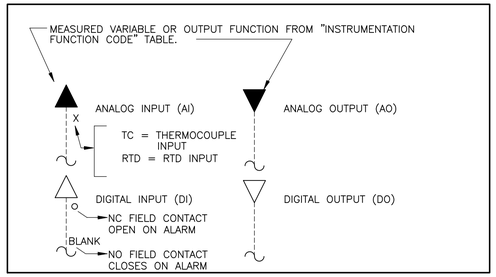
PIPE SERVICE

D	DRAIN
FA	FOUL AIR
NPW	NON-POTABLE WATER
OVF	OVERFLOW
S	SAMPLE
SHC	SODIUM HYPOCHLORITE
STS	SODIUM THIOSULFATE
TA	TREATED AIR
TW	TEPID WATER
VT	VENT

TYPICAL EQUIPMENT TAG NUMBERS & DESIGNATION



I/O SIGNALS



PRIMARY ELEMENTS

FE — ROTAMETER

PI — PRESSURE GAUGE

FSX — FLOW SWITCH
H = HIGH
L = LOW

LE C — CAPACITANCE LEVEL SENSOR

LE — ULTRASONIC LEVEL SENSOR

CL2 AE — CHLORINE ANALYZER

LE/LT — SUBMERSIBLE PRESSURE TRANSDUCER

FE M — MAGNETIC FLOW METER

PIPE LINE SYMBOLS

PIPE UNION

FLEXIBLE COUPLING (GENERAL SYMBOL)

QUICK CONNECT TYPE COUPLING

Y-STRAINER

MAJOR PROCESS LINE

MINOR PROCESS LINE

PROCESS FLUID
DWG NO.
TO/FROM LOCATION
DRAWING CONTINUATION

BLIND FLANGE/CAPPED CONNECTION

CONTINUED PIPE

THREADED DIAPHRAGM SEAL

OPEN EQUIPMENT DRAIN

PULSATION DAMPNER

CALIBRATION COLUMN

GENERAL NOTES

1. THIS LEGEND APPLIES TO P&IDS ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.

2. IN GENERAL THIS LEGEND SHEET AND THE P&IDS ARE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARDS FOR PRACTICES FOR INSTRUMENTATION. SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMODATE PROJECT REQUIREMENTS.

3. SOME PROCESS ITEMS SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION FUNCTIONS ARE NOT SHOWN ON THE P&IDS.

4. SEE ELECTRICAL AND MECHANICAL SHEETS AND SPECIFICATIONS FOR ADDITIONAL CONTROL AND INTERLOCK REQUIREMENTS.

5. LIGHTER WEIGHT LINES, SHOWN AS ———— , INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE EXISTING. WEIGHTED LINES, SHOWN AS ———— OR HEAVIER ———— , INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE NEW. DASHED WEIGHTED LINES, SHOWN AS —·—·—·— , INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE GROUPED AS A PACKAGE. EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE FUTURE ARE SHOWN AS —·—·— AND DENOTED AS FUTURE ON THE DRAWINGS.

GENERAL ABBREVIATIONS

AI	ANALOG INPUT
AO	ANALOG OUTPUT
COMM	COMMUNICATION
CPU	CENTRAL PROCESSOR UNIT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
FC	FAIL CLOSED
FO	FAIL OPEN OR FIBER OPTIC
FOES	FIBER OPTIC ETHERNET SWITCH
FOPP	FIBER OPTIC PATCH PANEL
HDMI	HIGH-DEFINITION MULTIMEDIA INTERFACE
HMI	HUMAN MACHINE INTERFACE
MES	MANAGED ETHERNET SWITCH
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
PFR	POWER FAIL RELAY
POE	POWER OVER ETHERNET
PLC	PROGRAMMABLE LOGIC CONTROLLER
RIO	REMOTE INPUT/OUTPUT
SPD	SURGE PROTECTIVE DEVICE
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE

PROCESS EQUIPMENT

PERISTALTIC PUMP

VALVE SYMBOLS

GATE VALVE (GV)

BALL VALVE (BV)

SWING CHECK VALVE (CV)

PRESSURE RELIEF VALVE (PRV)

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. LICK
DRAWN BY: M. GONZALEZ
SHEET CHK'D BY: X
CROSS CHK'D BY: X
APPROVED BY: X
DATE: JUNE 2021

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

INSTRUMENTATION
LEGEND, SYMBOLS, AND ABBREVIATIONS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: I001SYMB.dwg

SHEET NO.
I-1

NOTES:

1. ALL I/O SHALL BE WIRED TO A TERMINATION CABINET. THE SYSTEM INTEGRATOR SHALL CONNECT SIGNALS FROM THE TERMINATION CABINET TO PLC-TNK.
2. LOCAL CONTROLS ARE INTEGRAL TO METERING PUMP.
3. CHEMICAL INJECTION PIPING FROM BUILDING TO NEW 2MG TANK AND EXISTING 5MG TANK SHALL BE INSTALLED UNDER THIS CONTRACT AND SHALL BE CAPPED AS SHOWN. CONNECTION FROM THE PUMP SKID PROVIDED UNDER THIS CONTRACT TO THE CHEMICAL INJECTION PIPING SHALL BE PERFORMED BY OTHERS IN THE FUTURE.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. LICK
DRAWN BY: M. GONZALEZ
SHEET CHK'D BY: X
CROSS CHK'D BY: X
APPROVED BY: X
DATE: JUNE 2021

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VEOLIA

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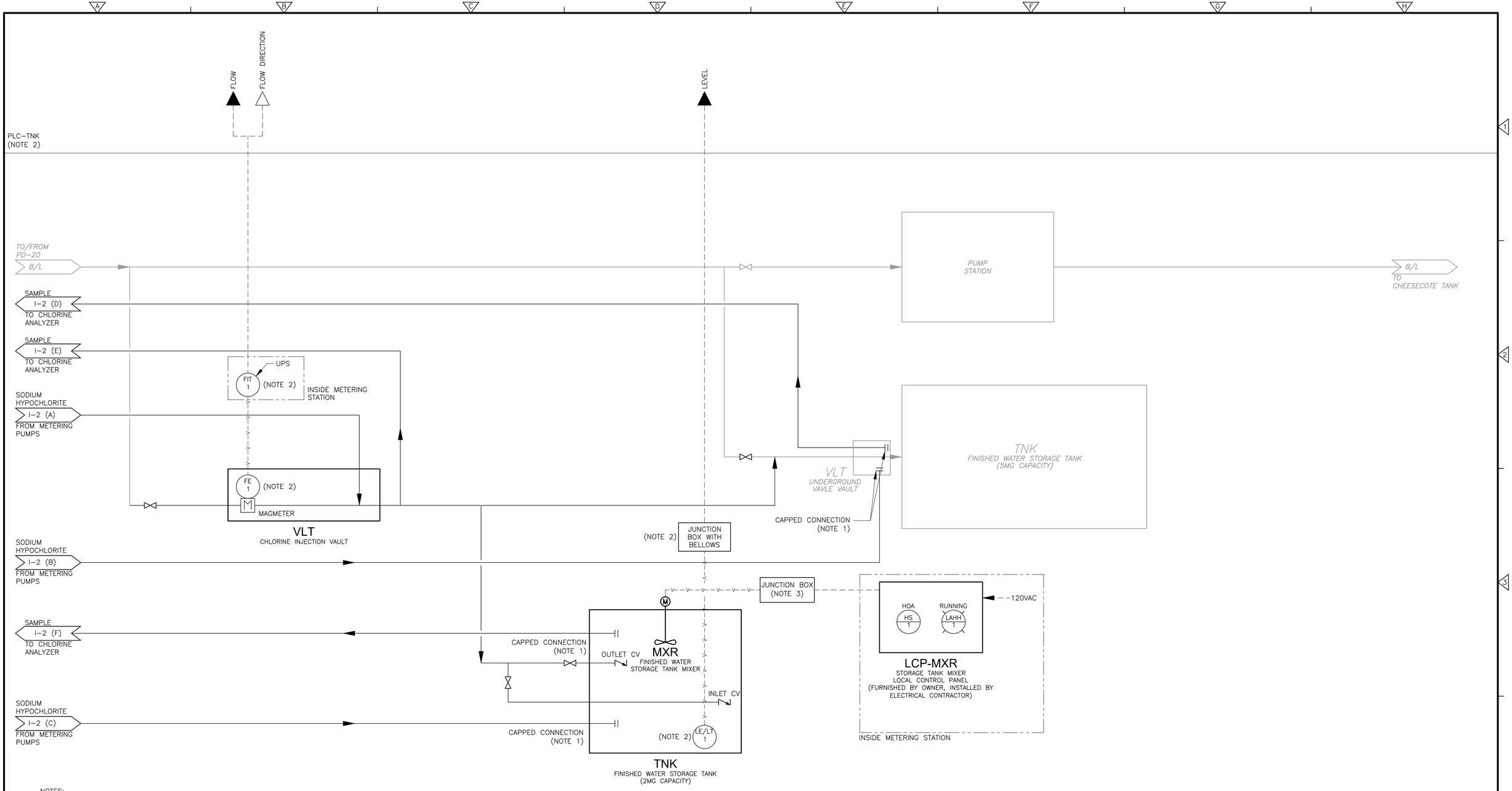
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

CHEMICAL FEED SYSTEM
PROCESS & INSTRUMENTATION DIAGRAM

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: I002PIDI.dwg

SHEET NO.
I-2



NOTES:

1. CHEMICAL INJECTION AND CHLORINE SAMPLE PIPING TO THE FINISHED WATER STORAGE TANK SHALL BE INSTALLED UNDER THIS CONTRACT, BUT CONNECTED IN THE FUTURE BY OTHERS.
2. DESIGNATES EQUIPMENT FURNISHED BY THE SYSTEM INTEGRATOR.
3. JUNCTION BOX AND MOUNTING EQUIPMENT TO BE FURNISHED BY OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THE JUNCTION BOX SHALL BE MOUNTED ON THE ROOF OF THE TANK WITHIN ARMS REACH OF THE TANK VENT.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. LICK
DRAWN BY: M. GONZALEZ
SHEET CHK'D BY: X
CROSS CHK'D BY: X
APPROVED BY: X
DATE: JUNE 2021

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Tel: (518) 782-4500

VEOLIA

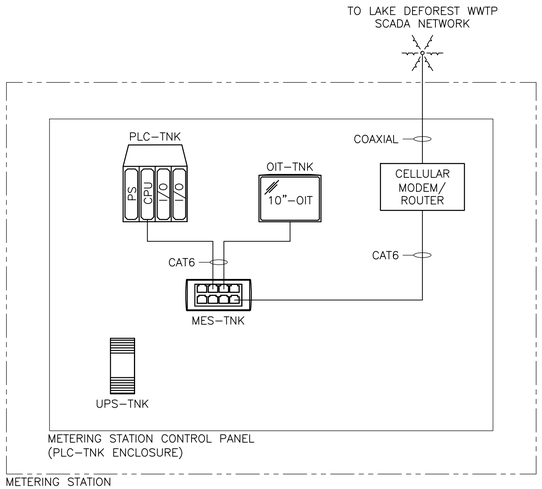
VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

FINISHED WATER STORAGE TANKS
PROCESS & INSTRUMENTATION DIAGRAM

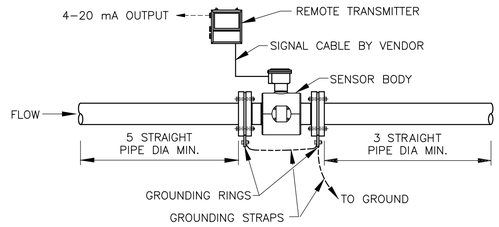
SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: I003PIDI.dwg

SHEET NO.
I-3



CONTROL SYSTEM ARCHITECTURE

DETAIL A
NTS

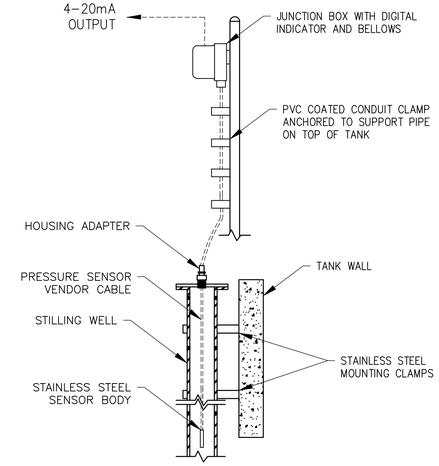


NOTES:

1. PROVIDE GROUNDING RING(S) AS RECOMMENDED BY MANUFACTURER.
2. PROVIDE SENSOR LINING TO PREVENT BUILDUP ON METER.

MAGNETIC FLOW METER

DETAIL B
NTS



NOTES:

1. PROVIDE 1/2" VENT HOLES IN TWO ROWS, 180° APART, EACH FOOT FROM TOP TO BOTTOM OF STILLING WELL.

SUBMERSIBLE PRESSURE TRANSDUCER

DETAIL C
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. LICK
DRAWN BY: M. GONZALEZ
SHEET CHK'D BY: X
CROSS CHK'D BY: X
APPROVED BY: X
DATE: JUNE 2021

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

INSTRUMENTATION
INSTALLATION DETAILS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: I004DETL.dwg

SHEET NO.
I-4

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
52 CS	——	MEDIUM VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER CS=CONTROL SWITCH
FRAME TRIP	CB	LOW VOLTAGE AIR OR MOLDED CASE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED.
SIZE # AMPS TYPE *		COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON–REVERSING UNLESS OTHERWISE NOTED: * FVR – FULL VOLTAGE REVERSING RVNR – REDUCED VOLTAGE NON–REVERSING RVAT – REDUCED VOLTAGE AUTOTRANSFORMER RVSS – REDUCED VOLTAGE SOLID STATE 2S1W – TWO SPEED, ONE WINDING 2S2W – TWO SPEED, TWO WINDING (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
*		NON–FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE * AMPERE RATING NOTED IF OTHER THAN 30A (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
* *	F	FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, * AMPERE RATING AND FUSE SIZE AS NOTED * AMPERE RATING NOTED IF OTHER THAN 30A FUSE RATING (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
	P 2	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER, 1 POLE UNLESS OTHERWISE NOTED "P" INDICATES WITH PILOT LIGHT "2" INDICATES TWO POLE (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
	——	DRAWOUT TYPE EQUIPMENT OR DEVICE
	——	MEDIUM VOLTAGE CABLE TERMINATION
	——	MEDIUM VOLTAGE AIR INTERRUPTER SWITCH
*	——	MEDIUM VOLTAGE FUSED AIR INTERRUPTER SWITCH * FUSE RATING
	——	MEDIUM VOLTAGE FUSED MOTOR CONTROLLER
XFMR NO. 1 480V KVA * 120/208V 3P, 4W	T	TRANSFORMER, RATINGS AND CONNECTIONS AS NOTED. UNLESS OTHERWISE NOTED ON THE SINGLE LINE DIAGRAMS, ALL DRY TYPE TRANSFORMERS SERVICING ADMINISTRATIVE AND LABORATORY SPACES SHALL HAVE A K FACTOR OF 4. ISOLATION TRANSFORMERS SHALL HAVE A K–20 RATING
* A TO 5	——	CURRENT TRANSFORMER * QUANTITY A = PRIMARY AMPERES
* V TO 120	——	POTENTIAL TRANSFORMER * QUANTITY V = PRIMARY VOLTAGE
	G	GENERATOR, RATINGS AND CONNECTIONS AS NOTED
ATS N S 100A	——	AUTOMATIC OR MANUAL TRANSFER SWITCH NO.1 (ATS–1), (MTS–1) "N" INDICATES NORMAL OR PREFERRED SOURCE "S" INDICATES STANDBY OR ALTERNATE SOURCE 100A INDICATES CONTINUOUS CURRENT RATING
*	*	VARIABLE SPEED DRIVE CONTROLLER * D.C. = D.C. DRIVE CONTROLLER SCR = SILICON CONTROLLED RECTIFIER VFD = VARIABLE FREQUENCY DRIVE
#KW	E	UNIT HEATER – ELECTRIC HEATING COIL AND FAN # – RATING
——	U	UNIT HEATER – GAS FIRED, STEAM OR WATER HEATING COIL AND FAN
5	M	MOTOR, NUMERAL INDICATES HORSEPOWER
VS VM *	——	VOLTMETER WITH SWITCH, 3 PHASE
AS AM *	——	AMMETER WITH SWITCH, 3 PHASE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
*	——	METER * WM – WATTMETER WHM – WATTHOUR METER WHDM – WATTHOUR DEMAND METER WHDR – WATTHOUR DEMAND RECORDER PF – POWER FACTOR METER DMU – DIGITAL METERING UNIT TRANSDUCER AX – CURRENT TRANSDUCER WX – WATT TRANSDUCER WHX – WATTHOUR TRANSDUCER
*	*	RELAY, NO. AS INDICATED 25 – SYNCHRONISM CHECK RELAY 27 – UNDERVOLTAGE RELAY 32 – DIRECTIONAL POWER RELAY 38 – BEARING PROTECTIVE DEVICE 40 – LOSS OF EXCITATION RELAY 42 – RUNNING CONTACTOR/PILOT RELAY 46 – REVERSE PHASE/PHASE BALANCE/CURRENT RELAY 47 – PHASE SEQUENCE VOLTAGE RELAY 49 – MACHINE OR TRANSFORMER THERMAL RELAY 50/51 – INSTANTANEOUS/TIME OVERCURRENT RELAY 50G – INSTANTANEOUS GROUND 51 – TIME OVERCURRENT RELAY 51G – TIME OVERCURRENT RELAY, GROUNDING RESISTOR TYPE 51N – TIME OVERCURRENT RELAY, RESIDUAL TYPE 51V – TIME OVERCURRENT RELAY WITH VOLTAGE RESTRAINT 51X – AUXILIARY RELAY (TRIPS CB AND ALARMS) 59 – OVERVOLTAGE RELAY 60 – NEGATIVE SEQUENCE VOLTAGE RELAY 62 – TIME DELAY RELAY 63 – OVERPRESSURE RELAY 64 – GENERATOR FIELD GROUND RELAY 67 – AC DIRECTIONAL OVERCURRENT RELAY 74 – ALARM LATCHING RELAY 83 – AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY 86 – LOCKING–OUT RELAY 87 – DIFFERENTIAL PROTECTIVE RELAY B – SUFFIX INDICATES "BUS" G – SUFFIX INDICATES "GENERATOR" GF – GROUND FAULT ST – SHUNT TRIP T – SUFFIX INDICATES "TRANSFORMER" X – SUFFIX INDICATES "AUXILIARY"
*	——	SPECIAL CAPACITOR * SC – SURGE CAPACITOR PF – POWER FACTOR CORRECTION CAPACITOR
*	——	TUNED POWER FACTOR CORRECTION CAPACITOR
	——	PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED
	——	PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN
	ES	EMERGENCY STOP PUSHBUTTON WITH RED MUSHROOM HEAD OPERATOR (MAINTAINED CONTACT)
STOP START	PBL	START–STOP PUSHBUTTON CONTROL STATION (MOMENTARY CONTACT) WITH LOCKOUT DEVICE ON STOP
	PBM	START–STOP PUSHBUTTON CONTROL STATION, MAINTAINED CONTACT WITH LOCKOUT DEVICE ON STOP
OFF ON	S/S	OFF/ON SELECTOR SWITCH
L R (XO) (OX)	LR	LOCAL/REMOTE SELECTOR SWITCH
A B C* (XOO) (OXO) (OOX)	*	3 POSITION SELECTOR SWITCH, MAINTAINED CONTACT O–OPEN X–CLOSED POSITION | TOP CONTACT | MIDDLE CONTACT | BOTTOM CONTACT A | X | O | O B | O | X | O C | O | O | X NAMEPLATE (A/B/C) HOA – HAND/OFF/AUTO HOR – HAND/OFF/REMOTE LOR – LOCAL/OFF/REMOTE RSL – RAISE/STOP/LOWER TOA – TEST/OFF/AUTO

GD/VF #	GD/VF #	GAS DETECTOR / VENTILATION FAILURE ALARM
		# INDICATES TYPE OF UNIT
		1=MASTER, 2=REMOTE

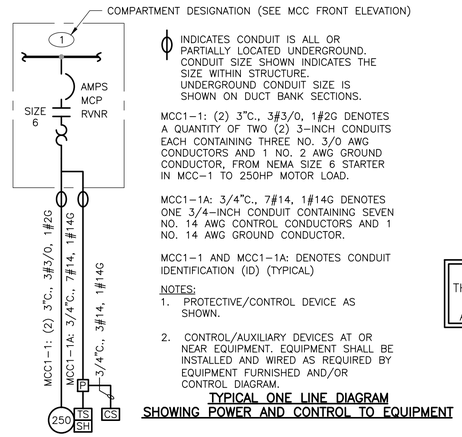
42 #	——	MOTOR STARTER COIL, NUMBER AS INDICATED TO DENOTE INTERLOCKING ONLY
CR #	——	CONTROL RELAY COIL, NUMBER AS INDICATED

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
*	——	PILOT LIGHT, COLOR AS NOTED * R – RED G – GREEN B – BLUE W – WHITE A – AMBER
*	——	PILOT LIGHT, PUSH–TO–TEST TYPE, COLOR AS NOTED ABOVE.
* RANGE # SETPOINT		TIME DELAY RELAY RANGE AS NOTED SETPOINT AS NOTED # NUMBER AS INDICATED * TDE – TIME DELAY AFTER ENERGIZATION ON DELAY TDD – TIME DELAY AFTER DE–ENERGIZATION OFF DELAY NOTC– NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED NCTO– NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED NOTO– NORMALLY OPEN, TIMED OPENING WHEN DE–ENERGIZED NCTC– NORMALLY CLOSED, TIMED CLOSING WHEN DE–ENERGIZED
* NOTC		
NCTO		
NOTO		
NCTC		
——	* – ##	FIELD INSTRUMENT, TAG NO. AS INDICATED * INDICATES INSTRUMENT TYPE DEFINED ON LOOP SHEETS OR P & ID ## INDICATES LOOP NO.
	LS OR ■	LIQUID LEVEL (FLOAT) SWITCH NORMALLY OPEN, CLOSES ON RISING LEVEL NORMALLY CLOSED, OPENS ON RISING LEVEL
	PS OR ■	PRESSURE OR VACUUM SWITCH NORMALLY OPEN, CLOSES ON RISING PRESSURE NORMALLY OPEN, CLOSES ON DROPPING PRESSURE NORMALLY CLOSED, OPENS ON RISING PRESSURE NORMALLY CLOSED, OPENS ON DROPPING PRESSURE
	TS OR T OR ■	TEMPERATURE SWITCH OR THERMOSTAT NORMALLY OPEN, CLOSES ON RISING TEMPERATURE NORMALLY OPEN, CLOSES ON DROPPING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON DROPPING TEMPERATURE
	FS OR ■	FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSES ON INCREASED FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW
	ZS OR ■	POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN – HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED – HELD OPEN
	WS OR ■	TORQUE SWITCH NORMALLY OPEN, CLOSES ON HIGH TORQUE NORMALLY CLOSED, OPENS ON HIGH TORQUE
#	——	UTILIZED IN CONJUNCTION WITH OTHER CONTROL SCHEMATIC SYMBOLS TO DEPICT THE PHYSICAL LOCATION OF THE DEVICE # REPRESENTS LOCATION SEE LOCATION LEGEND ON DRAWING
	——	CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
	——	CONDUCTORS ELECTRICALLY CONNECTED
	S	SOLENOID VALVE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
LA	——	LIGHTNING ARRESTER
		GROUND OR GROUND ROD
30A	——	FUSE, AMPERE RATING AS NOTED
	HTR	STRIP HEATER OR HEATING ELEMENT
	——	INDUCTOR
TG	TG	TACHOMETER GENERATOR
	——	CONTACT, NORMALLY OPEN (NO)
	——	CONTACT, NORMALLY CLOSED (NC)
	——	OVERLOAD RELAY HEATER
*	——	* K = KEY INTERLOCK E = ELECTRICAL INTERLOCK
	TB	TERMINAL OR TEST BLOCK
	RTD	RESISTANCE TEMPERATURE DETECTOR
VE OR VE	——	VIBRATION DETECTOR
DM	DM	DAMPER MOTOR
ETM	——	ELAPSED TIME METER
M	M	MOTOR OPERATED VALVE OR GATE
	——	INDICATES LIMITS OF ELECTRICAL EQUIPMENT OR WIRING ENCLOSURE

EXISTING WORK | NEW WORK | FUTURE EXPANSION

EXISTING, NEW OR FUTURE CONDITION DESIGNATION



INDICATES CONDUIT IS ALL OR PARTIALLY LOCATED UNDERGROUND. CONDUIT SIZE SHOWN INDICATES THE SIZE WITHIN STRUCTURE. UNDERGROUND CONDUIT SIZE IS SHOWN ON DUCT BANK SECTIONS.

MCC1–1: (2) 3"C., 3#3/0, 1#2G DENOTES A QUANTITY OF TWO (2) 3–INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR, FROM NEMA SIZE 6 STARTER IN MCC–1 TO 250HP MOTOR LOAD.

MCC1–1A: 3/4"C., 7#14, 1#14G DENOTES ONE 3/4–INCH CONDUIT CONTAINING SEVEN NO. 14 AWG CONTROL CONDUCTORS AND 1 NO. 14 AWG GROUND CONDUCTOR.

MCC1–1 AND MCC1–1A: DENOTES CONDUIT IDENTIFICATION (ID) (TYPICAL)

NOTES:
1. PROTECTIVE/CONTROL DEVICE AS SHOWN.
2. CONTROL/AUXILIARY DEVICES AT OR NEAR EQUIPMENT. EQUIPMENT SHALL BE INSTALLED AND WIRED AS REQUIRED BY EQUIPMENT FURNISHED AND/OR CONTROL DIAGRAM.

TYPICAL ONE LINE DIAGRAM SHOWING POWER AND CONTROL TO EQUIPMENT

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

NOTES:

1. IN GENERAL CONDUIT ROUTING FOR EQUIPMENT AND DEVICES IS NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUITS WHICH SHALL INCLUDE CONDUITS SHOWN ON ONE–LINE AND RISER DIAGRAMS AND HOME–RUNS SHOWN ON PLAN DRAWINGS. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
2. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.
3. SWITCHGEAR AND MOTOR CONTROL CENTER COMPARTMENT DESIGNATIONS AS INDICATED BELOW:
   - BLANK: NOT INTENDED FOR USE. PLATE ONLY
   - SPACE: EQUIPPED WITH REQUIRED BUS AND HARDWARE FOR THE FUTURE ADDITION OF BREAKERS AND/OR STARTERS WITHIN THE SIZE AND RANGE SHOWN
   - SPARE: CONTAINS A COMPLETELY INSTALLED BREAKER AND/OR STARTER OF SIZE AND TYPE INDICATED FOR FUTURE USE.
4. INTERPRETATION OF ELECTRICAL DRAWINGS: CIRCUIT IDENTIFICATION, ROUTING, AND SIZES OF CONDUITS AND WIRES ARE SHOWN ON THE FOLLOWING DRAWINGS:

A. ONE LINE POWER DIAGRAMS: POWER, CONTROL AND SIGNAL WIRING REQUIREMENTS FOR ELECTRICAL DISTRIBUTION EQUIPMENT AND UTILIZATION EQUIPMENT POWERED FROM SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS AND MAJOR POWER DISTRIBUTION PANELBOARDS ARE TYPICALLY SHOWN ON THE ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE AND QUANTITY FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT, AND SIZE OF THE GROUNDING ELECTRODE CONDUCTORS.

B. INSTRUMENTATION AND CONTROL RISER DIAGRAMS: POWER, CONTROL, SIGNAL AND DATA HIGHWAY WIRING REQUIREMENTS FOR INSTRUMENTS AND CONTROL DEVICES CONTROLLED/MONITORED FROM INSTRUMENTATION AND CONTROL PANELS SUCH AS RTUS, PLCS, TERMINAL CABINETS, AND REMOTE I/O PANELS ARE TYPICALLY SHOWN ON THE INSTRUMENTATION AND CONTROL ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE, QUANTITY AND TYPE FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT.

C. FLOOR PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS LOCATED WITHIN STRUCTURES, FLOOR PLANS SHOW THE LOCATION OF ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL PANELS, UTILIZATION EQUIPMENT, INSTRUMENTS, ANCILLARY EQUIPMENT AND DEVICES AND THE ANTICIPATED PENETRATION LOCATIONS WHERE CONDUITS EXIT/ENTER THE STRUCTURE. HOMERUNS MAY ALSO BE SHOWN FROM MISCELLANEOUS EQUIPMENT NOT SHOWN ON A ONE LINE OR RISER DIAGRAM.

D. SITE PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS EXTERIOR TO STRUCTURES AND TO IDENTIFY THE SPECIFIC REQUIREMENTS OF THE UNDERGROUND CONDUITS OR DUCT BANKS, SITE PLANS SHOW THE GENERAL ROUTING OF UNDERGROUND CONDUITS AND DUCT BANKS WITH SECTIONS INDICATING THE CONDUIT SIZE, ARRANGEMENT AND CIRCUIT ROUTING.

E. NOTE THAT CONDUIT SIZE WITHIN THE STRUCTURE IS INDICATED ON ONE–LINE DIAGRAM AND UNDERGROUND SIZE IS INDICATED ON DUCT BANK SECTIONS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: O. DEL OLMO
DRAWN BY: O. DEL OLMO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

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VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

ELECTRICAL LEGEND I

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: E001NFLG

SHEET NO.
E-1

SYMBOL	DESCRIPTION
A 3 b	LIGHTING FIXTURE "A" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "b" – CONTROLLED BY SWITCH "b" "3" – CIRCUIT NUMBER
A 3 b	LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3 b	WALL MOUNTED TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3 OR A 3	CROSS HATCH INDICATES LIGHTING FIXTURE THAT IS UNSWITCHED AND SHALL REMAIN ON AT ALL TIMES. NOTATIONS SAME AS ABOVE.
A 3 b OR A 3 b	SHADED AREA INDICATES LIGHTING FIXTURE THAT IS EQUIPPED WITH EMERGENCY BACKUP POWER SOURCE. NOTATIONS SAME AS ABOVE.
A 3	POLE MOUNTED AREA TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3	POLE MOUNTED ROADWAY TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
EM 3 (*)	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS "EM" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" – SUPERVISORY CIRCUIT * – FIXTURE TAG #
R-2 BU-1(*)	REMOTE EMERGENCY ADJUSTABLE WALL LIGHTING FIXTURE WITH TWO LAMP HEADS "R-2" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) * – HOME RUN TO BATTERY UNIT INDICATED. CONDUIT SHALL BE 3/4" AND CONTAIN (2) NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND (1) NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
A 3	COMBINATION BATTERY UNIT AND EXIT SIGN. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
A 3	CEILING MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN. (DOUBLE FACE DOUBLE CHEVRONS SHOWN)
A 3	WALL MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
RH-3 E 3 BU-1(*)	REMOTE EMERGENCY CEILING LIGHTING FIXTURE. "RH-3" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" – SUPERVISORY CIRCUIT * – HOME RUN TO BATTERY UNIT INDICATED. CONDUIT SHALL BE 3/4" AND CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
	HOME RUN TO DESIGNATED EQUIPMENT. BRANCH CIRCUIT CONDUIT WITH 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE NOTED. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING.
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	'x' INDICATES EXPLOSION PROOF CONDUIT SEAL FITTING.
	CONCRETE ENCASED DUCTBANK. WIDTH VARIES, SEE DUCTBANK SECTION/DETAILS FOR REQUIREMENTS AND WIDTH
	CONDUIT STUBBED OUT AND CAPPED
(2) 3"C., 3#3/0, 1#2G	DENOTES A QUANTITY OF TWO (2) 3-INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR.
2-2/C#16 SH	DENOTES A QUANTITY OF TWO INSTRUMENT CABLES. EACH CABLE TO CONSIST OF TWO NO. 16 AWG CONDUCTORS TWISTED TOGETHER AND COVERED WITH A METALLIC SHIELD AND AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
2-3/C#16 SH	SAME AS ABOVE EXCEPT CABLE TO CONSIST OF THREE NO. 16 AWG CONDUCTORS TWISTED, SHIELDED AND COVERED WITH AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
(3) 4"C.	THREE 4-INCH CONDUITS
	FLEXIBLE METAL CONDUIT "WHIP" (3/4"C., 2#12, 1#12G UNLESS OTHERWISE NOTED) FOR LIQUID TIGHT MOTOR CONNECTIONS
	'X' INDICATES CONDUIT SEAL FITTING IN OTHER THAN CODE REQUIRED LOCATIONS.
⊠	INDICATES MOTOR STARTER AND/OR MOTOR CONTROL EQUIPMENT WITHIN THE ENCLOSURE.

SYMBOL	DESCRIPTION
$a	SINGLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
$a 2	DOUBLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
$c 3	THREE WAY SWITCH "c" INDICATES FIXTURES CONTROLLED.
$a 4	FOUR WAY SWITCH "a" INDICATES FIXTURES CONTROLLED.
$a D	DIMMER SWITCH "a" INDICATES FIXTURES CONTROLLED
$OS	SINGLE POLE SWITCH "OS" INDICATES A PASSIVE INFRARED OCCUPANCY SENSOR
$OS 2	DOUBLE POLE SWITCH "OS" INDICATES PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF INBOARD/OUTBOARD SWITCHING
$DT	SINGLE POLE SWITCH "DT" INDICATES DUAL TECHNOLOGY PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF SENSING MOTION AND SOUND
C 3	LIGHTING CONTACTOR WITH NUMBER OF POLES AS INDICATED
TM	TIME SWITCH
	PUSH BUTTON STATION
TYPE A	INDICATES ALL LIGHTING FIXTURES WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE TYPE "A" UNLESS OTHERWISE NOTED. SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
	LIGHTING PANELBOARD (LP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	POWER PANELBOARD (PP-#) OR DISTRIBUTION PANELBOARD (DP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	LIGHTING CONTACTOR PANELBOARD (LCP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
* 4	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W * GFCI – GROUND FAULT CIRCUIT INTERRUPTER TYPE WP – WEATHERPROOF XP – EXPLOSION PROOF T – TRANSIENT VOLTAGE SURGE SUPPRESSOR IC – ISOLATED GROUND 4 – CIRCUIT NUMBER
* 4	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W MOUNTED ABOVE COUNTER-TOP OR 42" AFF * NOTATIONS SAME AS ABOVE
* 60 3 4W	SPECIAL PURPOSE RECEPTACLE * – VOLT RATING "3" – NUMBER OF POLES "60" – AMPERE RATING "4W" – 4 WIRES IN ADDITION TO GROUND
	MULTI-OUTLET ASSEMBLY, SYMBOL DENOTES RECEPTACLE TYPE
	FLUSH FLOOR OUTLET BOX WITH TYPE OUTLET INDICATED
	UNDER FLOOR DUCT SYSTEM WITH TYPE OUTLETS INDICATED
	THREE CELL UNDER FLOOR DUCT SYSTEM JUNCTION BOX
J OR (J)	JUNCTION BOX
P	PULL BOX
TC	TERMINAL CABINET
(OS)	OCCUPANCY SENSOR
(PC)	PHOTOCELL
ESA	EMERGENCY EYEWASH/SHOWER ALARM STATION WITH FLOW SWITCH(ES)
	INDICATED EQUIPMENT AND MATERIALS TO BE DEMOLISHED
DUST	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 12 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
DAMP OR WET	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
CORROSIVE	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
CLASS I, DIV. 1 GROUP D	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION SHOWN.

SYMBOL	DESCRIPTION
	GROUND SYSTEM GRID OR LOOP, 36" BELOW FINISHED GRADE UNLESS OTHERWISE NOTED.
	EXOTHERMIC WELD CONNECTION
	3/4" x 10'-0" GROUND ROD. UNLESS SPECIFIED OTHERWISE.
	GROUND ROD TEST WELL STATION (SEE DETAIL SHEET FOR REQUIREMENTS)
	COMMUNICATION SYSTEMS
K	TELEPHONE OUTLET FOR DESK TYPE HANDSET K = KEY SYSTEM
K	TELEPHONE OUTLET FOR WALL TYPE HANDSET (MOUNT UP 4'-6") K = KEY SYSTEM
	PAGE/PARTY TELEPHONE OUTLET FOR DESK TYPE HANDSET
	PAGE/PARTY TELEPHONE OUTLET FOR WALL TYPE HANDSET, MOUNT UP 4'-6"
S H W	PAGING SPEAKER, WALL MOUNTED H = HORN TYPE W = WIDE ANGLE TYPE
S W	PAGING SPEAKER, WALL MOUNTED, BI-DIRECTIONAL, HORN TYPE W = WIDE ANGLE TYPE
S	PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE
S	PAGING SPEAKER, SURFACE MOUNTED CEILING TYPE
VC	REMOTE WALL MOUNTED VOLUME CONTROL FOR CEILING SPEAKER, MOUNT UP 5'-0"
A	PAGING SPEAKER AMPLIFIER ASSEMBLY
TM	TELEPHONE CABINET OR BACKBOARD AS NOTED
P OR C	"C" – DATA INPUT/OUTPUT CABLE OUTLET "P" – PROCESS COMPUTER SYSTEM (CAT6 RJ-45 JACK)

GD/VF #	GAS DETECTOR/VENTILATION FAILURE ALARM,
	# INDICATES TYPE OF UNIT.
	1 = MASTER, 2 = REMOTE

GB	GAS DETECTION/VENTILATION FAILURE WEATHERPROOF DUAL-LITE BEACON MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
GS G	GAS DETECTION/VENTILATION FAILURE HORN/STROBE MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE HORN, MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE STROBE, MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
	SECURITY SYSTEMS
SACP	SECURITY ALARM CONTROL PANEL
DS	SECURITY ALARM DOOR SWITCH
K	SECURITY ALARM KEY PAD
R	SECURITY SYSTEM CARD ACCESS READER
WS	SECURITY ALARM WINDOW SWITCH
	SECURITY ALARM MOTION DETECTOR
CCTV	CLOSED CIRCUIT TV CAMERA
PTZ	PAN, TILT, ZOOM CAMERA LENS CONTROLS
GB	GLASS BREAK DETECTOR
	FIRE ALARM SYSTEMS
H 200 R	FIRE ALARM HEAT DETECTOR 135 FIXED TEMPERATURE UNLESS OTHERWISE NOTED. "200" – 200 FIXED TEMPERATURE "R" – FIXED TEMPERATURE RATE-OF-RISE TYPE
I	FIRE ALARM SMOKE DETECTOR PHOTOELECTRIC TYPE UNLESS OTHERWISE NOTED. "I" – IONIZATION TYPE.
D	FIRE ALARM DUCT SMOKE DETECTOR
FACP	FIRE ALARM CONTROL PANEL
FV	FIRE ALARM VENTILATION PANEL WITH GRAPHIC PANEL
FA	REMOTE FIRE ALARM ANNUNCIATOR PANEL

SYMBOL	DESCRIPTION
F	FIRE ALARM MASTER BOX
F	FIRE ALARM HORN, MOUNT UP 7'-6"
15 F	FIRE ALARM STROBE, MOUNT UP 6'-8" 15 = CANDELA RATING
15 F	FIRE ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT UP 6'-8" 15 = CANDELA RATING
F	FIRE ALARM MANUAL PULL STATION, MOUNT UP 4'-0"
VSS	SPRINKLER VALVE SUPERVISORY SWITCH
SFS	SPRINKLER FLOW ALARM SWITCH
F	FIRE ALARM 10" GONG
T	TROUBLE ALARM 4" GONG
S	SUPERVISORY ALARM 6" GONG
JB FRM	FRM MODULE IN JUNCTION BOX
JB FMM	FMM MODULE IN JUNCTION BOX
TS	TEST STATION
PS	DUCT MOUNTED PRESSURE SWITCH
F	FLAME DETECTOR
FS	FIRE STAT (IN H&V DUCT)
FZ	FREEZE STAT (IN H&V DUCT)
FB	WEATHERPROOF HI-INTENSITY FIRE ALARM STROBE LIGHT WITH HORN
PIR	PASSIVE INFRARED DETECTOR
R	SMOKE BEAM DETECTOR (RECEIVER)
T	SMOKE BEAM DETECTOR (TRANSMITTER)
	FIRE ALARM SMOKE DETECTOR REMOTE INDICATOR AND TEST SWITCH

ABBREVIATIONS	
A	AMPS
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CGD	COMBUSTIBLE GAS DETECTOR
CKT	CIRCUIT
CLB	CURRENT LIMITING BREAKER
CLF	CURRENT LIMITING FUSE
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH/CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
CWS	CONDUIT WALL SEAL
DC	DIRECT CURRENT
DIA	DIAMETER
DMU	DIGITAL METERING UNIT
DN	DOWN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL

ABBREVIATIONS (CONTINUED)	
ELEV	ELEVATION
EM	EMERGENCY
ENCL	ENCLOSURE OR ENCLOSED
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
FO	FIBER OPTIC
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HACR	HEATING & AIR CONDITIONING RATED
HH	HANDHOLE
HT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HERTZ
ID	IDENTIFICATION
INSTR	INSTRUMENT
K	KILO (PREFIX)
kcmil	1000 CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LA	LIGHTNING ARRESTER
LTG	LIGHTING
LP	LIGHTING PANEL
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
PB	PULL BOX
PCP	PUMP CONTROL PANEL
PH	PHASE
PMH	POWER MANHOLE
PNL	PANEL OR PANELBOARD
PR	PAIR
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECPT	RECEPTACLE
REQD	REQUIRED
QTY	QUANTITY
SA	SURGE ARRESTER
SEC	SECONDS OR SECONDARY
SH	SHIELDED OR SPACE HEATER
SHH	SIGNAL HANDHOLE
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME TO CLOSE OR TRAY CABLE
TEL	TELEPHONE
TO	TIME TO OPEN
TS	TWISTED SHIELDED OR THERMAL SWITCH
TYP	TYPICAL
UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS, WIDTH, WITH, WIRE
WP	WEATHERPROOF
XP	EXPLOSION PROOF
XFMR	TRANSFORMER

1 E-4 SHEET NO. WHERE SECTION IS DRAWN

SYMBOL WHERE THERE IS A SECTION

A E-4 SHEET NO. WHERE DETAIL IS DRAWN

SYMBOL WHERE THERE IS A DETAIL

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

SECTION 1 E-3 SHEET NO. WHERE SECTION IS TAKEN
1/4" = 1'-0"

SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

DETAIL A E-3 SHEET NO. WHERE THERE IS A DETAIL
1/4" = 1'-0"

SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: O. DEL OLMO
DRAWN BY: O. DEL OLMO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

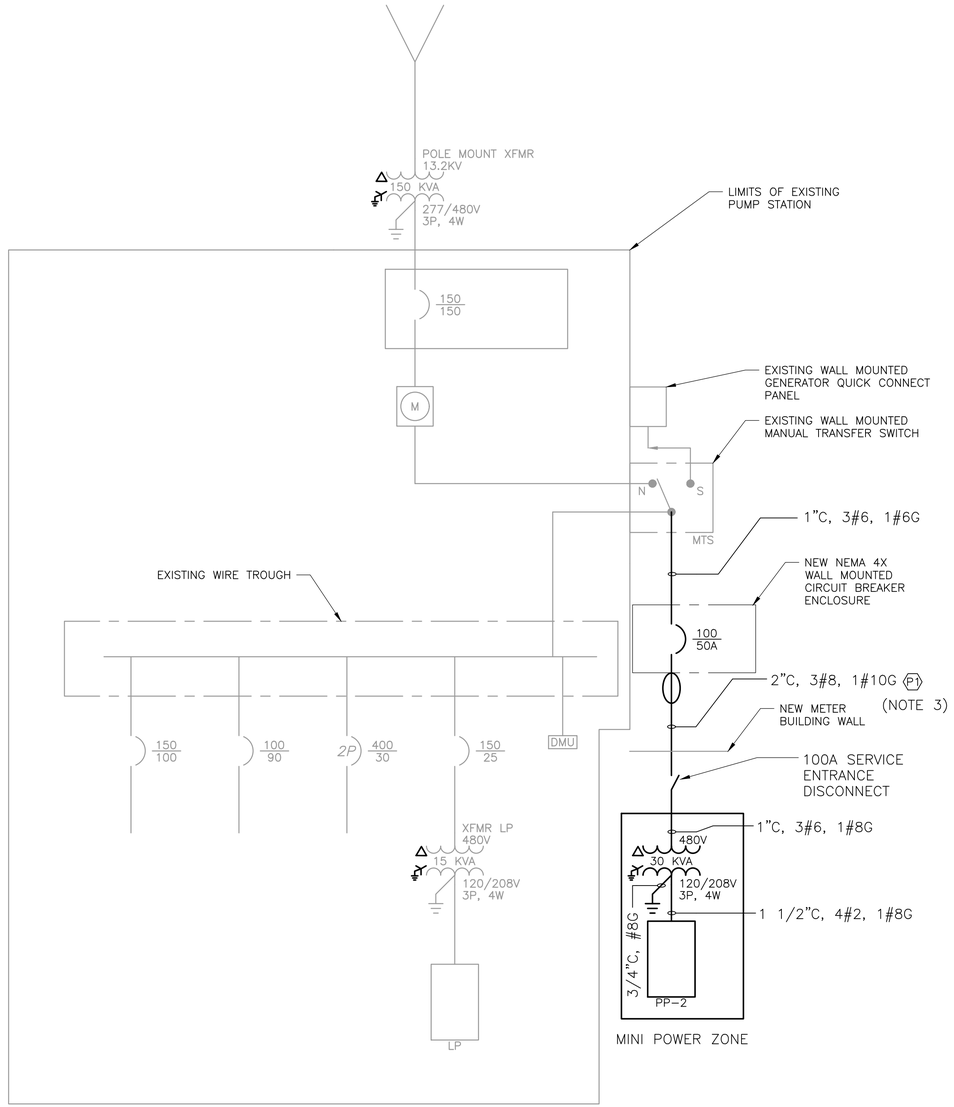
VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

ELECTRICAL LEGEND II

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: E002NFLG

SHEET NO.
E-2



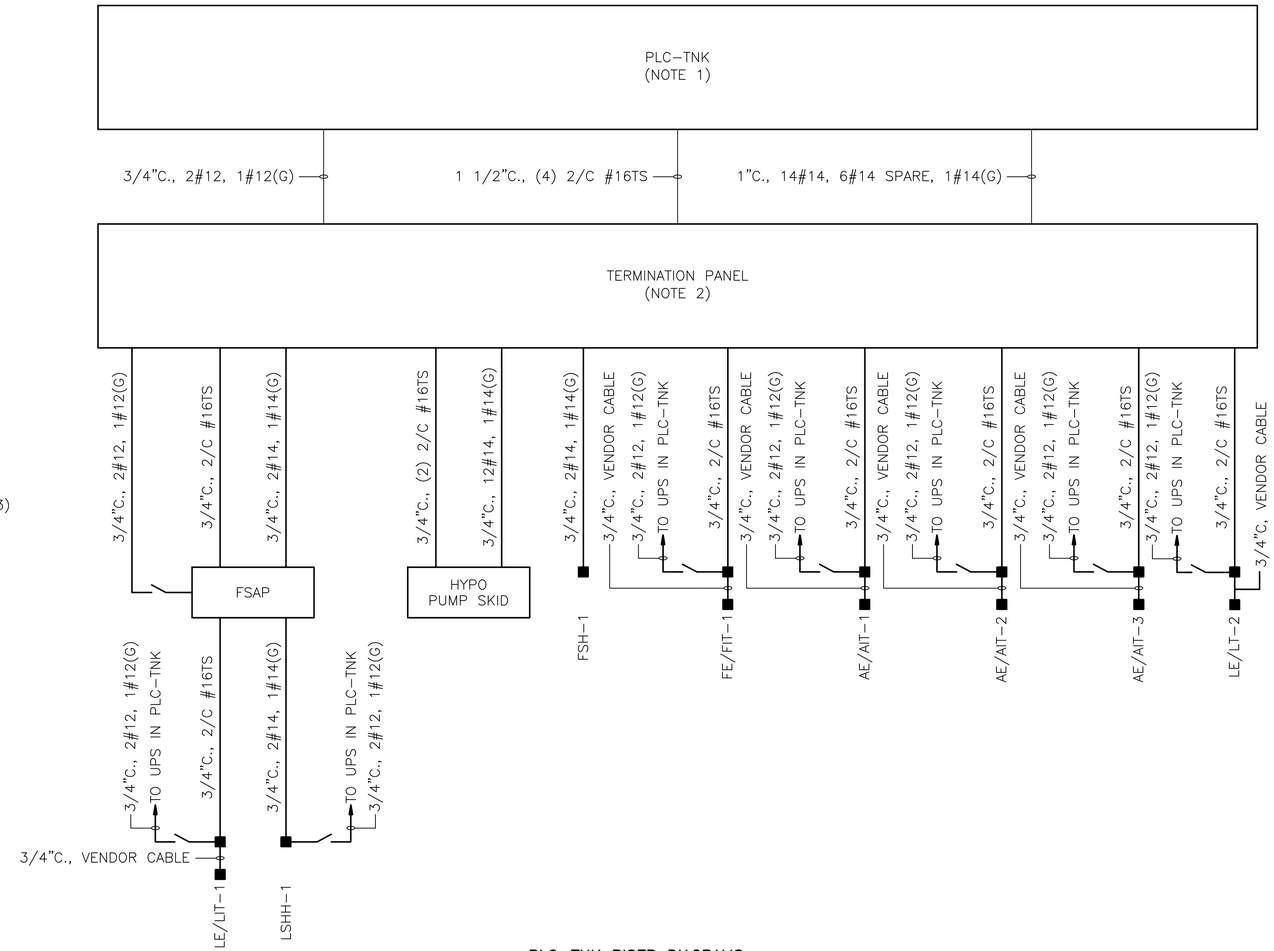
ELECTRICAL ONE LINE DIAGRAM MODIFICATIONS

PLAN

NTS

NOTES:

1. ANY WIRING TO PLC–TNK AND ANY FIELD INSTRUMENTS FURNISHED BY THE SYSTEM INTEGRATOR OR INSTALLED OUTSIDE OF THE PREFAB BUILDING SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR UNDER THIS CONTRACT.
2. ALL WIRING FROM FIELD INSTRUMENTS WITHIN THE PREFAB BUILDING SHALL BE TERMINATED INTO THE TERMINATION PANEL AND SHALL BE PRE–WIRED BY THE PREFAB BUILDING MANUFACTURER.
3. (P1) INDICATES UNDERGROUND CONDUIT ID,SEE UNDERGROUND DUCTBANK SECTIONS AND RACEWAY SCHEDULE FOR ADDITIONAL DETAILS.



PLC–TNK RISER DIAGRAMS

PLAN

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: O. DEL OLMO
DRAWN BY: O. DEL OLMO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
Camp Dresser McKee & Smith
11 British American Boulevard, Airport Park, Suite 200
Latham, NY 12110
Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

ELECTRICAL ONE-LINE DIAGRAM MODIFICATIONS AND RISER DIAGRAMS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197–234408
FILE NAME: E003SLDG

SHEET NO.
E-3

#2/0 BARE COPPER GROUND CONDUCTOR

P1

SECTION 1
NTS

I1 P2 C1 P3

SECTION 2
NTS

C1

SECTION 3
NTS

I1 P2 C1 P3

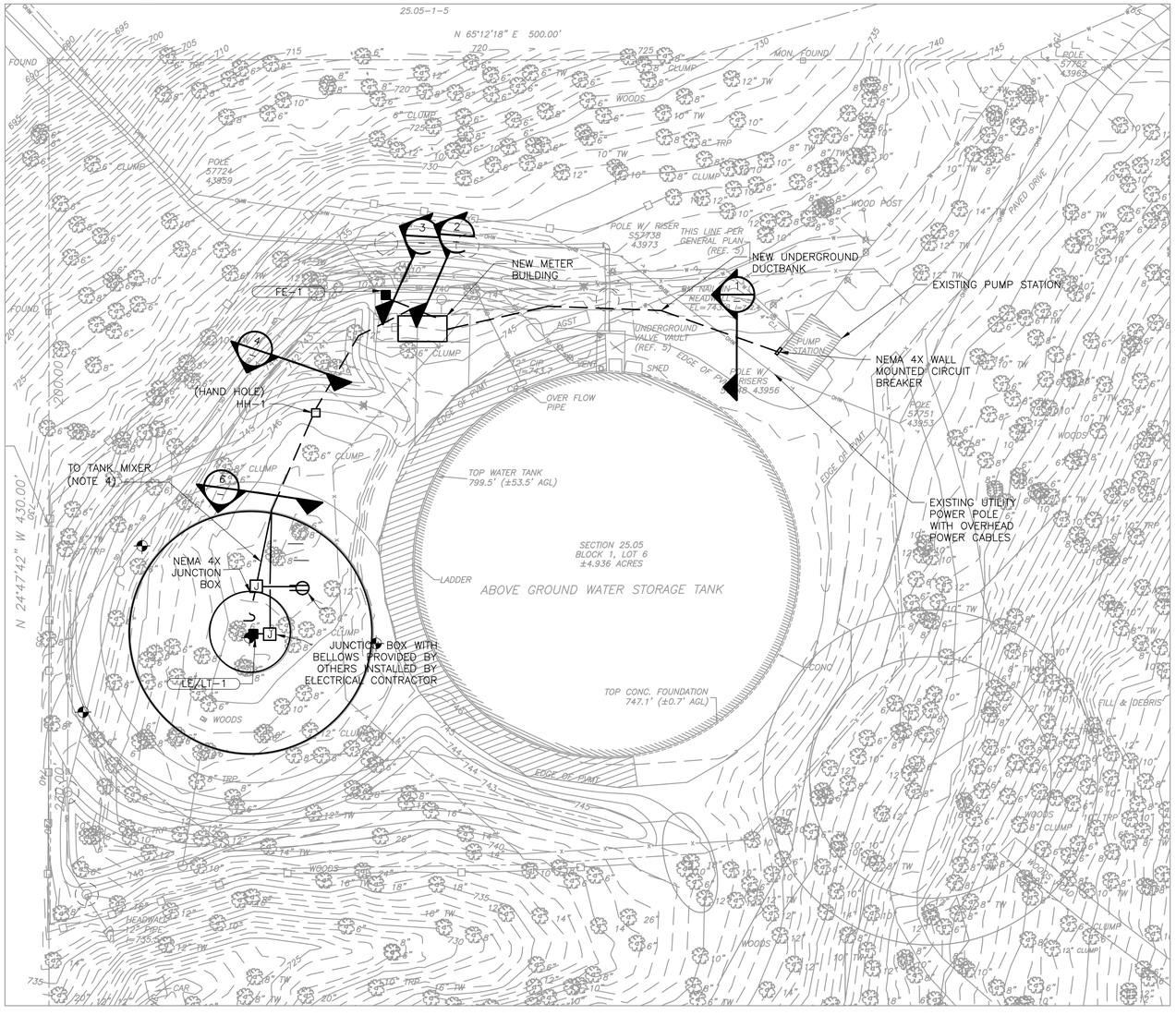
SECTION 4
NTS

I1 P2

SECTION 5
NTS

SECTION 5
NTS

SECTION 6
NTS



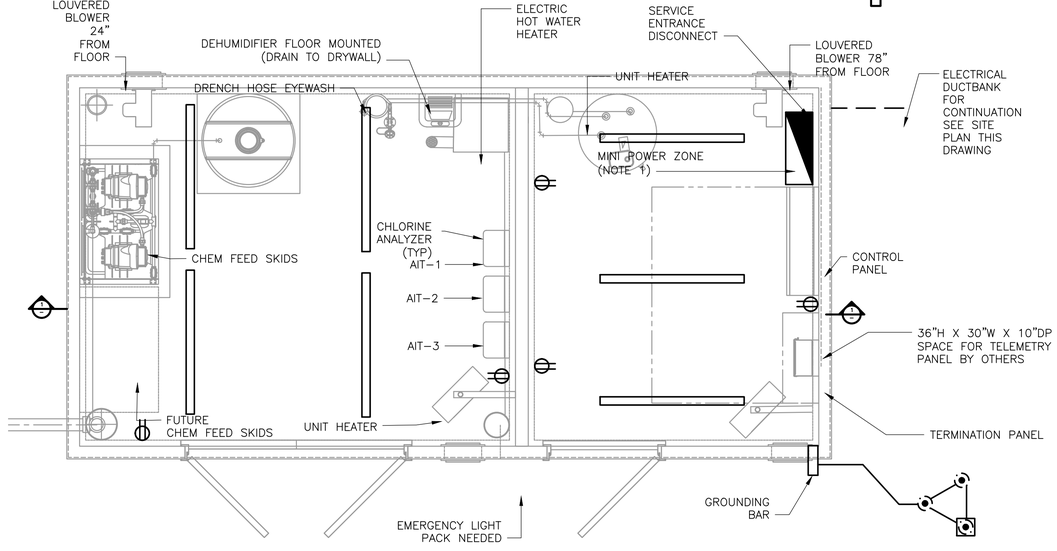
ELECTRICAL SITE
PLAN
1" = 30'
15 0 30

UNDERGROUND RACEWAY SCHEDULE
(NUMBERS REFERENCE THIS SHEET ONLY)

CONDUIT NO.	FROM	TO	RACEWAY SIZE	REMARKS
P1	WALL MOUNTED BREAKER AT EXIST. PUMP STATION	100A SERVICE ENTRANCE DISCONNECT AT NEW NEW METER BUILDING	2"	SEE DRAWING E-3
P2	MINI POWER ZONE CENTER PP-2	FINISHED WATER TANK MIXER,CONVENIENCE RECEPTACLE AND UPS POWER TO LT-2	2"	
P3	MINI POWER ZONE CENTER PP-2	SUMP PUMP INSIDE METER VAULT	2"	
C1	FLOW ELEMENT WITHIN METER VAULT FE-1 AND SUMP PUMP "HI" WATER LEVEL ALARM	FT-1 MOUNTED WITHIN THE CHEM. ROOM AND TO PLC-TNK	2"	SEE DRAWING E-3
I1	PLC-TNK	LE/LT-1	2"	SEE DRAWING E-3

NOTES:

1. SEE PANELBOARD SCHEDULE ON SHEET E-5 FOR FURTHER WIRING AND LOAD DETAILS.
2. NEW MINI POWER ZONE TRANSFORMER WITH PANEL.
3. NEW CONDUIT AND WIRE SHALL BE ROUTED ALONG THE EXTERIOR OF THE TANK TO THE TOP OF THE TANK TO A STANCHION MOUNT DISCONNECT SWITCH AND A SEPARATE CIRCUIT FOR A WEATHER PROOF RECEPTACLE.
4. SUBMERSIBLE MIXER VENDOR CABLE SHALL BE TERMINATED TO THE DISCONNECT SWITCH.



ELECTRICAL POWER
PLAN
1/2" = 1'- 0"
1 0 1 2

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: O. DEL OLMO
DRAWN BY: O. DEL OLMO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK
NEW HAVERSTRAW TANK

ELECTRICAL SITE & POWER PLAN

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: E004STPL

SHEET NO.
E-4

PANELBOARD PP-2

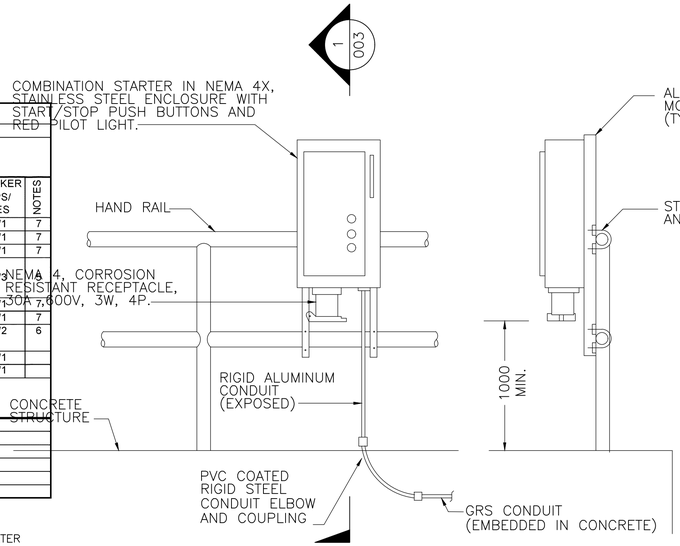
30 KVA 3-PHASE TRANSFORMER — 480 VOLT PRIMARY — 90 **AMP 3 POLE PRIMARY MAIN BREAKER** — 65 KA
100 AMP 3 POLE SECONDARY MAIN BREAKER — LOCATION: **METER BUILDING**
100 AMP BUS RATING — 24 POLES — 10 KA SHORT CIRCUIT RATING — ENCLOSURE RATING: **NEMA 12 ,**
208/120 VOLTS — 3 PHASE — 4 WIRE — **60 HZ** — ELECTRONIC GRADE: **NO** — MOUNTING: **SURFACE**

CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES	CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES
1	CONTROL PANEL-LCP-MXR	0.18			20 /1	7	2	DEHUMIDIFIER	0.75			20 /1	7
3	BLOWERS -(2) TOTAL		0.5		20 /1	7	4	CONVENIENCE RECEPTACLES		0.54		20 /1	7
5	LIGHTING			0.5	20 /1	7	6	CHEMICAL FEED SKID			0.18	20 /1	7
7	3KW SPACE HEATER - CHEM RM	1			20 /3	5	8	3KW SPACE HEATER - ELEC RM	1			20 /3	5
9			1				10			1			
11				1			12				1		
13	CHLORINE ANALYZERS	1			20 /1	7	14	TELEMETRY PANEL	1			20 /1	7
15	HOT WATER HEATER		2.25		30 /2		16	FINISHED WTR TK RECEPT		0.18		20 /1	7
17				2.25		6	18	WATER TANK MIXER			0.5	20 /2	6
19	SUMP PUM-MAG METER VAULT	0.75			20 /1	7	20		0.5				
21	CONVENIENCE RECEPTACLES		0.54		20 /1	7	22	1 POLE SPACE				/1	
23	1 POLE SPACE				/1		24	1 POLE SPACE				/1	
	TOTAL PHASE KVA THIS SIDE	2.93	4.29	3.75				TOTAL PHASE KVA THIS SIDE	3.25	1.72	1.68		
								TOTAL KVA PER PHASE	6.18	6.01	5.43		
								TOTAL THREE PHASE KVA		17.62			

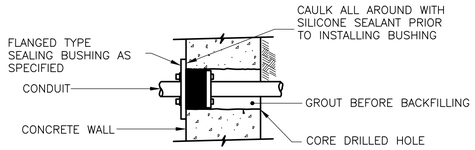
NOTES:
1. PROVIDE LOCKING HARDWARE
3. 30 ma GFI CIRCUIT BREAKER FOR EQUIPMENT PROTECTION ONLY (HEAT TRACE)
5. BRANCH CIRCUIT WIRING: 3/4"C, 3#12 & 1#12G
7. BRANCH CIRCUIT WIRING: 3/4"C, 2#12 & 1#12G

NOTES CONT.:
2. 5 ma GROUND FAULT INTERRUPTER (GFI) CIRCUIT BREAKER
4. PROVIDE LOCKING HARDWARE & PAINT BREAKER HANDLE RED (FACP)
6. BRANCH CIRCUIT WIRING: 3/4'C, 3#10 & 1#10G
8.

PANELBOARD SCHEUDLE

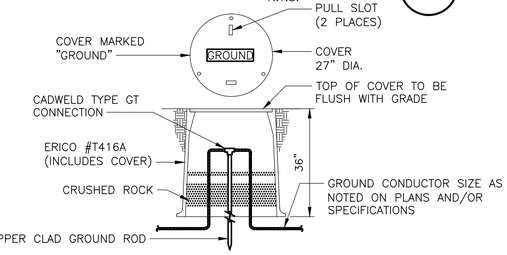


ELEVATION



CONDUIT PENETRATION THROUGH EXISTING CONCRETE WALL

DETAIL A — N.T.S.

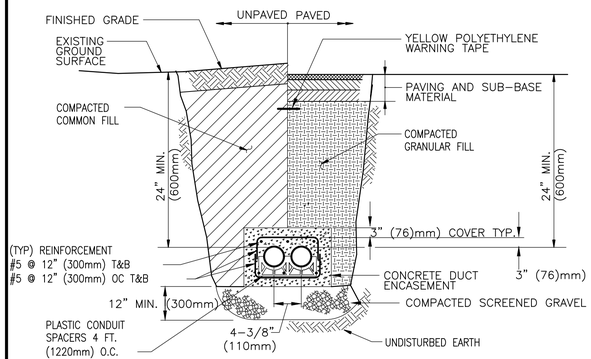


NOTE:

1. TO IMPROVE SYSTEM RESISTANCE, ERICO GEM MAY BE USED AS A BACKFILL MATERIAL IN AN AUGERED HOLE

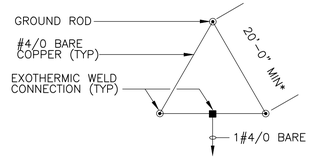
FRAMING ELEVATION

NTS



TYPICAL CONCRETE ENCASED SIGNAL CONDUITS

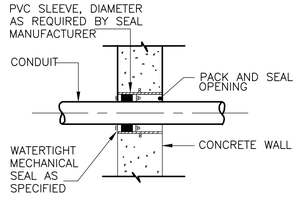
DETAIL B — N.T.S.



* WHERE PRACTICABLE

GROUND GRID

DETAIL C — N.T.S.

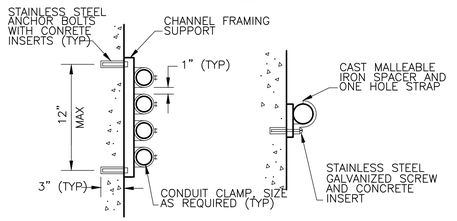


WATERTIGHT CONDUIT PENETRATION

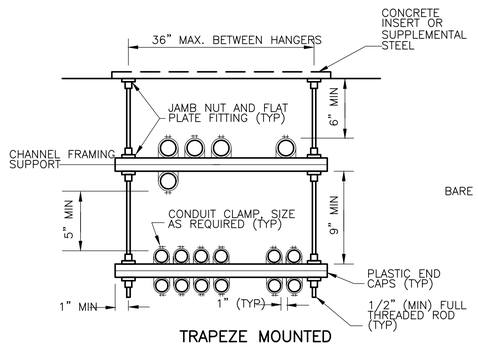
DETAIL D — N.T.S.

SUBMERSIBLE PUMPS STARTER AND OUTLET

DETAIL E — N.T.S.



WALL MOUNTED — CEILING OR WALL MOUNTED

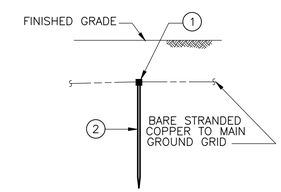


TRAPEZE MOUNTED

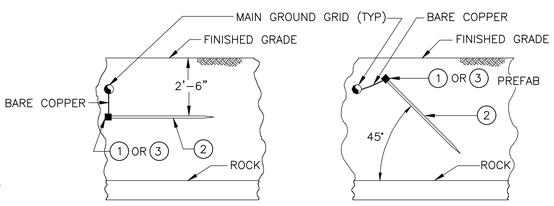
GROUND ROD TEST WELL

DETAIL F — NTS

ITEM NUMBER	QUANTITY	DESCRIPTION	MANUFACTURER	CAT #
1	1	CADWELD CABLE TO ROD	CADWELD	TYPE GT
2	1	GROUND ROD, COPPER CLAD, 8 FT MIN.	ERITECH	
3	1	CADWELD CABLE TO ROD	CADWELD	TYPE GS

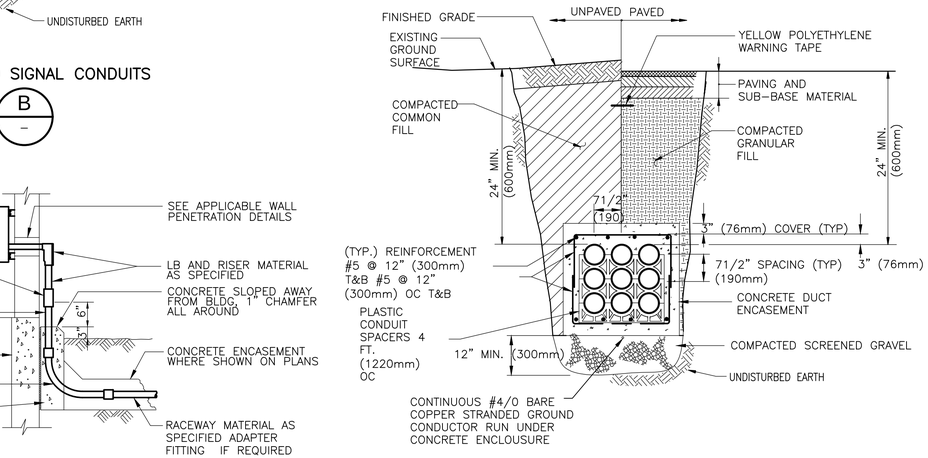


NORMAL INSTALLATION



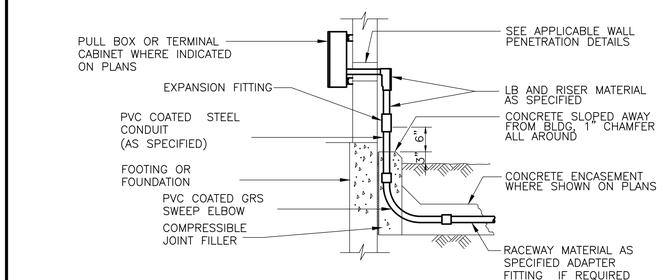
GROUND ROD INSTALLATIONS PER NEC 250-83(c) (3)

DETAIL J — N.T.S.



UNDERGROUND POWER DUCT BANK

DETAIL H — N.T.S.



ABOVE GRADE CONDUIT PENETRATIONS THROUGH EXISTING BUILDING OR STRUCTURES

DETAIL G — N.T.S.

CONDUIT MOUNTING

DETAIL I — N.T.S.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: O. DEL OLMO
DRAWN BY: O. DEL OLMO
SHEET CHK'D BY: C. MEEHAN
CROSS CHK'D BY: P. CABRAL
APPROVED BY: G. STUART
DATE: JUNE 2021

CDM Smith
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Tel: (518) 782-4500

VEOLIA

VEOLIA WATER NEW YORK
WEST NYACK, NEW YORK

NEW HAVERSTRAW TANK

ELECTRICAL SCHEDULES AND DETAILS

SWNY PROJ. NO.
CDMS PROJ. NO. 250197-234408
FILE NAME: E005RSDG

SHEET NO.
E-5

SPENCE ENGINEERING
EST 1995 CONSULTING & MUNICIPAL ENGINEERS

SPENCE ENGINEERING 25 YEARS Providing Engineering Excellence 1995-2019 86 E. Allendale Road, Saddle River, NJ 07458

TO: Village of Pomona, Planning Board

FROM: Martin K. Spence, PE Village Engineer

DATE: June 13, 2023

RE: Veolia Water New York - New Haverstraw Water Tank
82 Halley Drive, Pomona, NY Tax Map Section 25.05-1-6

We have received the following regarding the subject application:

- Application Review Form
- Project Narrative
- Drainage Report as prepared by CDM Smith, dated December 2022
- SWPPP as prepared by CDM Smith, dated April 2023
- Set of Engineering Plans, prepared by CDM Smith, last revised 11/22 as follows:
  Cover Sheet, G-1, C-1, C-2, C-2A C-3, C-4, CD-1, CD-2, CD-3, CD-4, CD-5, T-1 to T-18, S-1 to S-3, M-1, M-2, MD-1, I-1 to I-4, E-1 to E-5. (Note only civil and site engineering review is performed for compliance with Pomona local laws)

We offer the following:

1. The Applicant / Owner in this matter is:
   Veolia Water New York
   162 Old Mill Road
   West Nyack, NY 10994

2. The application consists of constructing a new 2 MG water storage tank at the Halley Drive site to be located adjacent to an existing water tank. The proposed water tank will be 54' high X 105' diameter. The site is currently used for water storage and is generally within a wooded / well screened area.

3. A drainage report and Stormwater Pollution Prevention Plan has been submitted and find them acceptable to meet regulatory standards. The applicant will need to export approximately 1,200 CY from the project site (approximately 60 truck loads).

Engineering Comments:

S-1. Stormwater Maintenance Agreement required for on-site detention systems.
The applicant acknowledges and agrees with this comment.

Sheet No. C-1

S-2. Applicant shall submit retaining wall design calculations and detailing as part of any Building Permit submittal as prepared by a NY State Professional Engineer. Applicant shall provide a note on the plan that detailed inspections will be performed by the applicant's engineer and submit a certification of compliance at completion of construction.

Miscellaneous

S-3. Applicant shall provide a Cost Estimate for Village Engineer review and approval.
The applicant acknowledges and agrees with this comment and may submit at the completion of the land use process and prior to any building permits.

S-4. We recommend that the plan set be revised with a consistent date for ease of referencing any approved plans.

S-5. Process SWPPP document such as filing Notice of Intent (NOI) and the Notice of Termination at the appropriate times.

END OF REPORT

c Clerk to the Board
Louis Zummo, Building Inspector
Steve Honan, Board Attorney
Jonathan Lockman, NPV, Village Planner
Gary Stuart, PE CDM Smith, Engineer for the Applicant
Steve Garabed, Veolia

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MEMORANDUM

TO: Village of Pomona Planning Board

FROM: Jonathan T. Lockman, AICP
Aaron Kardon, AICP

RE: Veolia (formerly SUEZ) Water New York – New Haverstraw Tank
SBL: 25.05-1-6

DATE: June 5, 2023

CC: Tammy Epstein, Village Clerk
Stephen M. Honan, Esq., Attorney
Lou Zummo, Building Inspector
Martin K Spence, P.E., Village Engineer
Gary Stuart, P.E., CDM Smith (for the Applicant)

We are in receipt of the following materials for the application for the development of an additional 2-million-gallon water tank and new metering building, with driveway improvements and drainage structures, at 83 Halley Drive, by Veolia (formerly Suez) Water New York, applicant:

Received and reviewed for this memorandum:

- Project Narrative, for Veolia Water New York, New Haverstraw Tank, undated, with November 7, 2022, in file name.
- Letter from Gary Stuart, P.E., CDM Smith, to Chakiera Locust, RE: responses to consultant comments, dated January 12, 2023.
- Letter from Gary Stuart, P.E., CDM Smith, to Chakiera Locust, RE: responses to consultant comments, dated April 26, 2023.
- Full Environmental Assessment Form, part 1, with EAF Mapper Summary, signed by Steven R. Garabed, dated January 11, 2023.
- New Haverstraw Tank Project Drainage Report, unstamped, by CDM Smith, dated December 2022.
- New Haverstraw Tank Project Stormwater Pollution Prevention Plan report, unstamped, CDM Smith, dated April 2023.
- Site plan package, 40 sheets, prepared by CDM Smith, stamped and signed by Gary Stuart, P.E., dated June 2021, last revised April 13, 2023 (per file date on left margin of cover).
    - -: Cover Sheet/Location Map/Drawing Index
    - G-1: Legend, Abbreviations, Symbols and General Notes
    - C-1: Clearing, Grading, Drainage and Erosion Control Plan
    - C-2: Site Layout and Yard Piping
    - C-2A: Tree Removal Plan

- C-3: Drainage Profile
- C-4: Landscaping Plan
- CD1 - CD-5: Civil details
- T-1: Glass Fused to Steel Tank Plan, Elevation and Details
- T-2 – T-5: Glass Fused to Steel Tank Details
- T-8: Prestressed Concrete Tank- Tank Plan, Section and Elevation Plan
- T-9 – T-12: Prestressed Concrete Tank Details
- T-13: Welded Steel Tank Plan, Elevation and Details
- T-14 - T-16: Welded Steel Tank Plan Details
- T-17 – T-18: Welded Steel Tank Plan, Section and Elevation
- S-1: General Notes
- S-2: Structural Foundation and Slab Plan
- S-3: Structural Typical Details
- M-1: Meter Station Plan
- M-2: Process Flow Diagram, HVAC Diagrams and General Notes
- MD-1: Mechanical Details
- I-1: Instrumentation Legend, Symbols and Abbreviations
- I-2: Chemical Feed System Process & Instrumentation Diagram
- I-3: Finished Water Storage Tanks Process & Instrumentation Diagram
- I-4: Instrumentation Installation Details
- E-1-E-2: Electrical Legend
- E-3: Electrical One Line Diagram Modifications and Riser Diagrams
- E-4: Electrical Site & Power Plan
- E-5: Electrical Schedules and Details

Project Summary

Veolia already owns and operates an existing 5-million-gallon (MG) tank on the subject property. They wish to construct an additional 2 MG tank adjacent to the existing tank, located about 20 feet to the southwest. The new tank is proposed to be 53.33 feet tall, and it will be approximately 105 feet in diameter. A new, chemical metering building is also proposed, approximately 10' by 21'.

The 4.936-acre site is located at 83 Halley Drive, on the west side of the road, and is within the R-40 Zoning District. The use requires both a special permit from the Village Board of Trustees and site plan approval of the Planning Board, pursuant to §130-10.B. Representatives of the applicant and the design engineer appeared before the Village's Technical Advisory Committee on February 16, 2022.

Submission Comments

1. **We defer to the Village Engineer's review of the drainage report and SWPPP**.

2. We note that on the drawing set, the original file date indicated on most drawings is June 2021, and many of the individual drawings show as being revised November 2022. However, the cover indicates revisions in April 2023. For our previous memorandum, dated February 6. 2023, drawings submitted were dated August 2021, with latest revisions dated November 2022. **Please**

clarify the dates of the drawings submitted, and check whether they are the latest that have been prepared.

3. Per comment 1 of our previous memorandum, **a corrected FEAF Part 1 form has been submitted**.

4. Per comment 2 of our previous memorandum, **a Bulk Requirements Table** has been provided on sheet C-2. **See substantive comments on the table below**.

5. Regarding comment 4 of our previous memorandum, while a tree removal plan and landscaping plan have been provided with the current submission the applicant has not submitted a plan which shows all the trees which will be removed with an "X" symbol. Proposed limits of clearing are not indicated by distinct symbology (drawings only show a silt fence as a potential boundary). While there is a note on Sheet C-2A, the current Tree Removal Plan, that states that all trees within the limits of clearing are shall be removed, with some existing trees over 11' in diameter circled on the plans, **we note that there are trees not shown for removal on this sheet, which are in the proposed new tank location**. **The applicant still needs to show on their Tree Removal Plans which trees will be removed, with an "X" symbol, and should show a clear boundary of the limits of the clearing.** The species and size of proposed plantings to be installed are provided on these revised plans, as requested.

Zoning Comments

6. Per comment 6 of our previous memorandum, a Bulk Table has been added to sheet C-2 with the requirements for Lot Coverage filled in. We note that the applicant is **proposing a 22% lot coverage which is greater than the maximum permitted coverage, which will require a ZBA variance. The bulk table should indicate that a variance is required for this standard.**

7. Maximum height proposed is 53.33 feet and the R-40 maximum allowable height is 35 feet. **The Building Inspector should opine whether a ZBA variance will be needed for this tank height and provide the applicant with a written determination. It is indicated on the FEAF that the proposed application date for the Pomona ZBA approval of variances is March 2023, which should be revised**. Note that the ZBA cannot make a final decision on any variances until the Lead Agency makes a SEQRA negative declaration.

8. **A special permit for this use is required from the Village Board of Trustees.**

SEQRA

1. **We recommend that the lead agency (which could be either the Village Board or the Planning Board) classify this action as "unlisted**," since it is a nonresidential structure greater than 4,000 sq. ft.

2. **It appears that GML review will be required** as this project, which requires a special use permit, is less than 500 feet from Call Hollow Road and the Village Boundary.

Items reviewed for our previous memorandum, dated February 6, 2023:

- Project Narrative, for Veolia Water New York, New Haverstraw Tank, undated.
- Full environmental Assessment Form, part 1, with EAF Mapper Summary, signed by Steven R. Garabed, dated January 11, 2023.
- Memorandum, prepared by Martin K. Spence, P.E., dated February 15, 2022.
- Haverstraw Tank Project Drainage report, stamped by Gary R. Stuart, P.E., CDM Smith, dated December 2022
- Letter from Gary Stuart, P.E., CDM Smith, to Chakiera Locust, RE: responses to consultant comments, dated January 12, 2023.
- Site plan package, 43 sheets, prepared by CDM Smith, stamped and signed by Gary Stuart, P.E., dated August 2021, last revised November 2022.
    - G-1: Cover Sheet, Location Map, drawing index, legend, abbreviations, symbols, and general notes.
    - C-1: CLEARING, GRADING, DRAINAGE, AND EROSION CONTROL PLAN
    - C-2: SITE LAYOUT AND YARD PIPING
    - C-3: DRAINAGE PROFILE
    - C-4-CD-5: Civil details
    - T-1-T-5: Glass fused to steel tank plan and details
    - T-6-T-7: Removed
    - T-8-T-12: Prestressed Concrete Tanks plan and details
    - T-13-T-18: Welded Steel Tank Plan details
    - S-1: General Notes
    - S-2: Structural Foundation and Slab Plan
    - S-3: Structural typical details
    - M-1: Meter Station Plan
    - M-2: Process Flow Diagram, HVAC Diagrams and General Notes
    - MD-1: Mechanical Details I
    - I-1-I-4: Instrumentation Details and Diagrams
    - E-1-E-5: Electrical Plan and Details

Items reviewed for our previous memorandum, dated November 15, 2021:

- Transmittal Letter dated August 31, 2021, by Gary R. Stuart, P.E., of CDM Smith.
- Project Narrative, for "Suez Water New York, New Haverstraw Tank," undated, unsigned.
- FEAF Part 1 form, with EAF Mapper Summary Report, signed by Steven R. Garabed, dated August 30, 2021.
- Plan entitled "Figure No. 1, New Haverstraw Tank, Large Diameter Trees, by CDM Smith, unstamped, undated.
- Letter from Derek Rohde, NYS Parks Recreation and Historic Preservation, to Ms. Colleen Meehan, CDM Smith, RE: DOH, New Haverstraw Tank, dated November 4, 2019.
- Letter from Nicholas Conrad, NYSDEC Natural Heritage Program, to Ms. Colleen Meehan, CDM Smith, RE: New Haverstraw Tank – Comments on Northern Long Eared Bat, dated November 16, 2019.
- Plan Set, 17 sheets, stamped by Gary R. Stuart, P.E., CDM Smith, with the following sheets, dated June 2021:
    - Cover

- G-1, Legend, Abbreviations, Symbols and General Notes
- C-1, Clearing, Grading, Drainage, and Erosion Control Plan
- C-2, Site Layout and Yard Piping
- C-3, Drainage Profiles
- CD-1 to CD-5, Civil Details
- T-1, Glass Fused to Steel Tank Plan, Elevation and Detail
- T-8, Prestressed Concrete Tank – Tank Plan, Section and Elevation
- T-13, Welded Steel Tank Plan, Elevation and Details
- M-1, Meter Station Plan
- E-1 to E-3. Electrical