NEW YORK STATE THRUWAY AUTHORITY
DEPARTMENT OF ENGINEERING

ALBANY, NY
APRIL 28, 2026

AMENDMENT NO. 3
TO

CONTRACT TAN 26-9A
D215077
NIAGARA SECTION PUMPHOUSE UPGRADE
ON I-190, MP N9.1
IN THE BUFFALO DIVISION
OF THE NEW YORK STATE THRUWAY
IN ERIE COUNTY

IN THE LETTING OF
MAY 6, 2026

NOTE: This amendment shall be attached to and become a part of the Proposal for Contract **TAN 26-9A.**

NOTICE

For Electronic Bidders, the Project's amended EBSX file will automatically account for any necessary item changes (deletions, changes in quantities, or additions) that this Amendment may describe as being required regarding the project's estimated cost. Instructions to make physical changes to the Project Proposal's bid sheets are intended for "paper" Bidders who choose to submit bids via paper.

Questions and Answers for this project are available from the Authority's website, specifically at: https://content3.thruway.ny.gov/netdata/contractors/documents/d215077_tan26-9a_questions-and-answers-04-28-2026.pdf. This document may be updated periodically without formal issuance of an Amendment. Prospective bidders are advised to revisit this link weekly and before proposals are due, for any possible additional questions and answers information.

PROPOSAL

1. **DELETE** page **252** and **REPLACE** with the attached revised page **252-A3**. The revised Specification Summary for Item 627.0013 25, Special Construction is now available. The specifications for Section 09960 High Performance Coatings have been added.

2. **DELETE** page **257** and **REPLACE** with the attached revised page **257-A3**. The revised specifications for Section 13500, Instrumentation and Control System are now available. In the second paragraph of Section Part 1 – General, 1.1, a previous reference to LCP-1 has been changed to LCP-Niagara, instead.

3. **ADD** the attached new specifications for Section 09960 – High Performance Coatings, pages **301A-A3** through **301O-A3**. This specification section is now being called out on revised Drawing Number M-104, Sheet 40 of 66. Refer to Item 9 below for additional information.

PLANS

4. **DELETE** Drawing Number C-103, Sheet 7 of 66 and **SUBSTITUTE** with the attached Drawing Number C-103, Sheet 7-A3 of 66. A callout to the Light Pole and Foundation (TYP) has been updated to now also reference the additional foundation detail.

5. **DELETE** Drawing Number C-105, Sheet 9 of 66 and **SUBSTITUTE** with the attached Drawing Number C-105, Sheet 9-A3 of 66. The callout to the Existing Manhole for the sewer connection has been revised to reference the additional drop connection detail.

6. **DELETE** Drawing Number C-106, Sheet 10 of 66 and **SUBSTITUTE** with the attached Drawing Number C-106, Sheet 10-A3 of 66. A new C1 Light Pole Foundation Detail has been added and is now located on the upper left corner of the drawing.

7. **DELETE** Drawing Number C-107, Sheet 11 of 66 and **SUBSTITUTE** with the attached Drawing Number C-107, Sheet 117-A3 of 66. A new C3 Inside Drop Connection Detail has been added and is now located on the upper right corner of the drawing.

8. **DELETE** Drawing Number C-108, Sheet 12 of 66 and **SUBSTITUTE** with the attached Drawing Number C-108, Sheet 12-A3 of 66. A dimension has been added in the A2 Elevation detail to clarify the height of the sheet pile wall cap over existing grade.

9. **DELETE** Drawing Number M-104, Sheet 40 of 66 and **SUBSTITUTE** with the attached Drawing Number M-104, Sheet 40-A3 of 66. A callout was added in detail A2 to callout the Interior Concrete Surfaces of Wet Pit and the protective lining specification that it shall receive.

10. **DELETE** Drawing Number H-001, Sheet 42 of 66 and **SUBSTITUTE** with the attached Drawing Number H-001, Sheet 42-A3 of 66. The (numbering) indentation on the A1 HVAC Notes details have been corrected. The fan schedule in the B2 HVAC Schedules details has been updated with a revised fan selection and a new note to the Contractor regarding hangers and supports required for a ceiling mount installation.

11. **DELETE** Drawing Number H-100, Sheet 43 of 66 and **SUBSTITUTE** with the attached Drawing Number H-100, Sheet 43-A3 of 66. Detail A1 has been updated with the revised fan selection as also identified in Drawing Number H-001 above. The A2 Floor Plan detail has been updated with a revised fan layout and new instructions. A new C1 Hanger Attachment detail has been added to accommodate the revised fan selection.

12. **DELETE** Drawing Number E-106, Sheet 56 of 66 and **SUBSTITUTE** with the attached Drawing Number E-106, Sheet 56-A3 of 66. The A2 Controls Building - Lighting Plan detail has been updated to call out the wall fan installation coordination with the proposed light switch.

The Bidder **MUST** complete Page **600** of the Proposal acknowledging receipt of this amendment. If the Bidder fails to complete the "Amendment Acknowledgement" sheet, his bid could be declared informal thereby delaying award of the contract.

PLEASE BE GOVERNED ACCORDINGLY WHEN SUBMITTING BIDS.

Brent E. Howard, P.E.
Chief Engineer

NEW YORK STATE THRUWAY AUTHORITY C&S #185.026.004
NIAGARA PUMP HOUSE UPGRADE

ITEM 627.0013 25 SPECIAL CONSTRUCTION

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

A. Section 13121 Pre-Engineered Buildings

B. Section 13500 Instrumentation and Control System

C. Section 13530 Programmable Logic Controllers

D. Section 13550 Software Control Block Descriptors

E. Section 09960 High Performance Coatings

F. Section 13560 Instrumentation General Requirements

G. Section 13562 Flow Instruments

H. Section 13563 Pressure and Level Instruments

I. Section 13570 Panels and Appurtenances

J. Section 13591 Fiber optic Communication Cable and Appurtenances

1.02 This item shall include, but not be limited to, the following:

A. Equipment and other such items specially designed and required for the controls and operations of the pumphouse upgrade system.

SECTION 13500 - INSTRUMENTATION AND CONTROL SYSTEM

PART 1 - GENERAL

1.1 SCOPE. This section covers the furnishing and installation of a Plant Control System (PCS). The system shall be furnished as specified, complete with all software, processors, operator interface terminal (OIT) hardware, input/output hardware, instrumentation, and all devices, accessories, appurtenances, testing, and training necessary for proper operation. The SYSTEM SUPPLIER shall provide coordination services to support peer-to-peer PLC communications with the other vendor supplied PLCs.

The terms “HMI” and “OIT” is used interchangeably and shall mean the OIT touchscreen to be provided under this Contract as part of LCP-Niagara.

A. The Plant Control System generally consists of, but is not limited to, the follow components:

The SYSTEM SUPPLIER shall provide system configuration services for the Allen Bradley PLC system software located in the Niagara Pump Station Panel LCP-Niagara. The SYSTEM SUPPLIER shall configure the system with the current version of the software utilized by OWNER during the configuration process. The SYSTEM SUPPLIER shall also provide configuration services for historical collection of data points on the existing historical collection software as necessary or as directed by OWNER’S REPRESENTATIVE.

The SYSTEM SUPPLIER shall provide system configuration services for the PLC including OIT graphics displays, data logging and alarm messages, all associated hardware, software and programming for all devices and systems shown on the Instrumentation (“I”) Drawings and described in Specification Section 13550 - Software Control Block Descriptions.

The Plant Control System (PCS) as provided under this specification section, utilizes an Allen Bradley CompactLogix PLC and communicates over an Ethernet network using Ethernet / IP.

The specified OIT shall be capable of hosting a web page that will duplicate all the functions and screens available at the OIT via internet connection. The SYSTEM SUPPLIER shall configure this functionality. The SYSTEM SUPPIER shall provide services to coordinate the interface of this new Ethernet connection (the OIT) with the campus staff responsible for controlling access to the Owner’s network.

The specified OIT shall also capable of sending email and SMS text messages to 5 email addresses / phone numbers simultaneously upon the triggering of any of the alarm conditions specified herein. The email message and text message shall include the description of the alarm. The SYSTEM SUPPLIER shall configure this functionality.

The SYSTEM SUPPLIER shall coordinate with the Owner’s staff to obtain system access to the Owner’s existing wide area network.

B. Associated Sections. This section also includes the equipment and services specified in the following sections.

SECTION 09960 – HIGH-PERFORMANCE COATINGS

PART 1 - GENERAL

1.1 SCOPE.

This section covers field applied protective coatings, including surface preparation, protection of surfaces, inspection, and other appurtenant work for equipment and piping surfaces. Regardless of the number of coats previously applied, at least two field coats in addition to any shop coats or field prime coats shall be applied to all surfaces unless otherwise specified.

1.2 GENERAL

Cleaning, surface preparation, coating application, and thickness shall be as specified herein and shall meet or exceed the coating manufacturer's recommendations. When the manufacturer's minimum recommendations exceed the specified requirements, Contractor shall comply with the manufacturer's minimum recommendations. When equivalent products are acceptable to Owner's Representative, Contractor shall comply with this specification and the coating manufacturer's recommendations.

A. Governing Standards. All cleaning, surface preparation, coating application, thickness, testing, and coating materials (where available) shall be in accordance with the referenced standards of the following AWWA, ANSI, NACE, SSPC, NSF, and ASTM.

B. Delivery and Storage. All coating products shall be received and stored in accordance with the coating manufacturer's recommendations.

C. Coatings, Painting, and Linings Covered in Other Sections.

1. Architectural and structural painting.

1.3 SUBMITTALS. Contractor shall submit color cards for all coatings proposed for use, together with complete descriptive specifications and the completed Coating System Data Sheets, to Owner's Representative for review and color selection. Requests for review submitted directly to Owner's Representative by coating suppliers will not be considered.

A. When the proposed products will be in contact with treated or raw water in potable water treatment facilities, Contractor shall submit certifications that the proposed systems are in compliance with ANSI/NSF 61.

B. Contractor shall submit a Coating System Data Sheet for each separately identified surface in the Coating Schedule that will be used in the project, using the appropriate Coating System Data Sheet forms (Figures 1-09960 and 2-09960) at the end of this section. Each field coating system shall be acceptable to the coating material manufacturer. Each Coating System Data Sheet shall include application temperature limits including recoat time requirements for the ambient conditions at the site, including temperatures up to 130°F. Temperature requirements shall be specified by the coating manufacturer.

C. Each proposed coating system shall be assigned a unique number with a prefix letter based on the following:

Prefix	Surfaces	Figure
A	Iron and steel (shop primed) Iron and steel (coated entirely in field)	2 1
E	Equipment – submerged Equipment – nonsubmerged	1 2
F	Nonferrous metal	1
G	Galvanized	1
P	CPVC	1

D. Each coating system that will be applied entirely in the field shall be assigned only a prefix letter and no suffix letter. When appropriate under the indicated conditions, the following suffix shall be added to the coating system numbers: -F Each shop-applied coating system that includes a finish coat applied in the field.

E. A separate Coating System Data Sheet shall be developed and submitted for each variation or change in a coating system or surface to be coated.

F. The manufacturer's standard colors will be acceptable for all coatings.

1.4 QUALITY ASSURANCE.

A. Coating System Data Sheet Certifications. The coating applicator and coating manufacturer shall review and approve in writing the coating manufacturer's written recommendations for the coating system and the intended service. Any variations from the specifications or the coating manufacturers published recommendations shall be submitted in writing and approved by the coating manufacturer. The coating manufacturer shall observe the surface preparation, mixing, and application of the coating systems and submit a written report of his observations and any additional recommendations.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Alternative Manufacturers. In addition to the coatings listed herein, equivalent products of the following manufacturers will also be acceptable:

1. PPG

2. Sigma

3. Rust-Oleum

B. Equivalent Coatings. Whenever a coating is specified by the name of a proprietary product or of a particular manufacturer or vendor, it shall be understood as establishing the desired type and quality of coating. Other manufacturers' coatings will be accepted, provided that sufficient information is submitted to enable Owner's Representative to determine that the proposed coatings are equivalent to those named. Information on proposed coatings shall be submitted for review in accordance with the Submittals section. Requests for review of equivalency will be accepted only from Contractor, and will be considered only after the contract has been awarded.

2.2 MATERIALS

All coatings shall be delivered to the job in original, unopened containers, with labels intact. Coatings shall be stored indoors and shall be protected against freezing. No adulterant, unauthorized thinner, or other material not included in the coating formulation shall be added to the coating for any purpose.

A. All coatings shall conform to the air quality regulations applicable at the location of use. Coating materials that cannot be guaranteed by the manufacturer to conform, whether or not specified by product designation, shall not be used.

B. Contractor shall be responsible for ensuring the compatibility of field coatings with each other or with any previously applied coatings. Coatings used in successive field coats shall be produced by the same manufacturer. The first field coat over shop coated or previously coated surfaces shall cause no wrinkling, lifting, or other damage to underlying coats.

All coatings used on surfaces that will be in contact with potable or treated water shall be certified as being in compliance with ANSI/NSF 61. Coatings that cannot be so certified, whether or not specified by manufacturer and by product designation, shall not be used.

C. Primers

1. Universal Primer – PPG Amercoat "Amercoat 385 Epoxy", Carboline "Rustbond", ICI Devoe "Devran 224HS" Tnemec "Series 27 F.C. Typoxy", or Sherwin-Williams "Dura Plate 235".

2. Zinc Primer - PPG Amercoat "Dimetate 9 Series", Carboline "Carbo Zinc II Series", ICI Devoe "Catha-Coat 304V", or Sherwin-Williams "Zinc Clad II Series".

D. Intermediate and Finish Coatings

1. NSF Certified Epoxy Enamel – PPG Amercoat "Amerlock 400 High-Solids Epoxy", Carboline "Carboguard 891", Tnemec "Series N140 Pota-Pox Plus", or Sherwin-Williams "Dura Plate 235"; immersion service.

2. Epoxy Enamel – PPG Amercoat "Amercoat 385 Epoxy", Carboline "Carboguard 890 ", Tnemec "Series N69 Hi-Build Epoxoline II", or Sherwin-Williams "Dura Plate 235".

3. Aliphatic Polyurethane – PPG Amercoat "Amercoat 450H", Carboline "Carbothane 134HG", ICI Devoe "Devthane 379H" Tnemec Series 1074 Endura-Shield II", or Sherwin-Williams "Acrolon 218HS".

2.3 CONCRETE WET PIT LINING SYSTEM

Interior concrete surfaces of wet pits, wet wells, and similar structures subject to stormwater and wastewater exposure shall receive a high-performance protective lining system suitable for continuous immersion service.

A. Materials: The lining system shall be one of the following:
- 100 percent solids epoxy lining system
- Polyurea lining system
- Vinyl ester lining system

All materials shall be specifically formulated for wastewater environments and resistant to hydrogen sulfide (H_2S) corrosion.

B. Surface Preparation: Surface preparation for concrete substrates shall conform to:
- SSPC-SP13 / NACE No. 6

Concrete surfaces shall be:
- Clean, sound, and free of laitance, curing compounds, oil, grease, and loose material
- Prepared to a minimum CSP 3–5, unless otherwise required by the manufacturer
- All cracks, joints, and surface defects shall be repaired and prepared in accordance with the coating manufacturer's recommendations prior to the application of the lining system.

C. Minimum Thickness: The total dry film thickness shall be:
- Epoxy lining: 60 mils minimum
- Polyurea or Vinyl ester lining: 80 to 125 mils minimum

Greater thickness shall be provided where required by the manufacturer for the intended service.

D. Submittals: Submit the following in accordance with this Section:
- Product data sheet
- Manufacturer's application instructions
- Surface preparation requirements
- Recommended dry film thickness
- Certification that the system is suitable for stormwater and wastewater immersion service

F. Application: Application shall be performed by qualified applicators experienced in installation of wastewater lining systems and in strict accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

All surfaces to be coated shall be clean and dry and shall meet the recommendations of the coating manufacturer for surface preparation. Freshly coated surfaces shall be protected from dust and other contaminants. Oil and grease shall be completely removed by use of solvents or

detergents before mechanical cleaning is started. The gloss on previously coated surfaces shall be dulled if necessary for proper adhesion of topcoats.

A. Surfaces shall be free of cracks, pits, projections, or other imperfections that would interfere with the formation of a smooth, unbroken coating film, except for concrete block construction where a rough surface is an inherent characteristic.

B. When applying touchup coating or repairing previously coated surfaces, the surfaces to be coated shall be cleaned as recommended by the coating manufacturer, and the edges of the repaired area shall be feathered by sanding or wire brushing to produce a smooth transition that will not be noticeable after the coating is applied. All coatings made brittle or otherwise damaged by heat of welding shall be completely removed.

C. Galvanized Surfaces. Galvanized surfaces shall be prepared for coating according to the instructions of the manufacturer of the epoxy enamel. Any chemical treatment of galvanized surfaces shall be followed by thorough rinsing with clean water.

D. Ferrous Metal Surfaces. Ungalvanized ferrous metal surfaces shall be prepared for coating by using one or more of the following cleaning procedures as specified: solvents (SSPC-SP1); blasting (SSPC-SP5, -SP6, -SP7, or -SP10); power tools (SSPC-SP3 or -SP11); or hand tools (SSPC-SP2). Oil and grease shall be completely removed in accordance with SSPC-SP1 before beginning any other cleaning method. Surfaces of welds shall be scraped and ground as necessary to remove all slag and weld spatter. Tools which produce excessive roughness shall not be used.

1. All components of equipment that can be properly prepared and coated after installation shall be installed prior to surface preparation. Components that will be inaccessible after installation shall have the surfaces prepared and coated before installation. Motors, drive trains, and bearings shall be protected during surface preparation in accordance with the equipment manufacturer's recommendations.

2. All cut or sheared edges shall be ground smooth to a 1/8 inch minimum radius for all material 1 /4 inch thickness and larger. For material thickness less than 1/4 inch all cut or sheared edges shall be ground smooth to a radius equal to 1/2 the material thickness. Grinding of rolled edges on standard shapes with a minimum radius of the 1/16 inch will not be required.

3. All ferrous metal surfaces shall have all welds ground smooth and free of all defects in accordance with NACE Standard RPO178, Appendix C, Designation C and sharp edges ground smooth, if not previously prepared in the shop. Instead of blending of the weld with the base metal as required by the NACE standard, it will be acceptable to furnish a welded joint that has a smooth transition of the weld to the base metal. All welds shall be ground smooth to ensure satisfactory adhesion of paint.

4. The cleaning methods and surface profiles specified herein are minimums, and if the requirements printed in the coating manufacturer's data sheets exceed the limits specified, the value printed on the data sheets shall become the minimum requirement.

Ferrous Metal Surfaces - Non-immersion Service. Ferrous metal surfaces, including fabricated equipment, in non-immersion service shall be cleaned to the degree

recommended by the coating manufacturer for surfaces to be coated with coal tar epoxy, epoxy enamel, and heat-resistant coatings, except galvanized surfaces. Blast cleaning to at least SSPC-SP6 shall be used where recommended by the coating manufacturer, and may be used elsewhere at the option of Contractor, provided that no dust is permitted to settle on adjacent wet coating. Surface profile shall be as recommended by coating manufacturer, but not less than 2 mils.

Ferrous Metal Surfaces - Immersion Service. Surface preparation of ferrous metal surfaces in immersion service shall consist of blast cleaning to at least SSPC-SP10 and the first application of coating shall be performed on the same day. If more surface area is prepared than can be coated in one day, the uncoated area shall be blast cleaned again to the satisfaction of Owner's Representative. Surface profile shall be as recommended by coating manufacturer, but not less than 3.5 mils.

E. Copper Tubing. All flux residue shall be removed from joints in copper tubing. Immediately before coating is started, tubing shall be wiped with a clean rag soaked in xylol.

F. Plastic Surfaces. All wax and oil shall be removed from plastic surfaces that are to be coated, including PVC and FRP, by wiping with a solvent compatible with the specified coating.

G. Hardware. Hardware items such as bolts, screws, washers, springs, and grease fittings need not be cleaned prior to coating if there is no evidence of dirt, corrosion, or foreign material.

H. Aluminum. When a coating system is required, remove all oil or deleterious substance with neutral detergent or emulsion cleaner or blast lightly with fine abrasive.

I. Stainless Steel. When a coating system is required, surface preparation shall conform to the coating manufacturer's recommendations.

3.2 MIXING AND THINNING.

Coating shall be thoroughly mixed each time any is withdrawn from the container. Coating containers shall be kept tightly closed except while coating is being withdrawn.

Coating shall be factory mixed to proper consistency and viscosity for hot weather application without thinning. Thinning will be permitted only as necessary to obtain recommended coverage at lower application temperatures. In no case shall the wet film thickness of applied coating be reduced, by addition of coating thinner or otherwise, below the thickness recommended by the coating manufacturer. Thinning shall be done in compliance with all applicable air quality regulations.

3.3 APPLICATION

Coating shall be applied in a neat manner that will produce an even film of uniform and proper thickness, with finished surfaces free of runs, sags, ridges, laps, and brush marks. Each coat shall be thoroughly dry and hard before the next coat is applied. In no case shall coating be applied at a rate of coverage greater than the maximum rate recommended by the coating manufacturer.

A. Coating failures will not be accepted and shall be entirely removed down to the substrate and the surface recoated. Failures include but are not limited to sags, checking, cracking, teardrops,

fat edges, fisheyes, or delamination.

B. Priming. Edges, corners, crevices, welds, and bolts shall be given a brush coat (stripe coat) of primer before application of the primer coat. The stripe coat shall be applied by a brush and worked in both directions. Special attention shall be given to filling all crevices with coating.

Abraded and otherwise damaged portions of shop-applied coating shall be cleaned and recoated as recommended by the manufacturer of the finish coating. Welded seams and other uncoated surfaces, heads and nuts of field-installed bolts, and surfaces where coating has been damaged by heat shall be given a brush coat of the specified primer. Before the specified spot or touchup coating of metal surfaces, edges, corners, crevices, welds, and bolts in the area of the spot or touchup coating shall be given a brush coat of primer. This patch, spot, or touchup coating shall be completed, and the paint film shall be dry and hard, before additional coating is applied.

C. Epoxy Enamel. When used, epoxy enamel shall be applied in accordance with the coating manufacturer's recommendations, including temperature limitations and protection from sunlight until top-coated.

When applying high build epoxy coatings with a roller or brush and where a dry film thickness of at least 4-6 mils per coat is required, two or more coats shall be applied to achieve the recommended dry film thickness equal to a spray applied coating.

D. Coal Tar Epoxy. When used, the application of coal tar epoxy, including time limits for recoating, shall conform to the recommendations of the coating manufacturer.

E. Vinyl Ester. When used, the application of vinyl ester coating system, including time limits for recoating and temperature requirements of the materials, shall conform to the recommendations of the coating manufacturer.

F. Film Thickness. The minimum total coating dry film thickness including intermediate coats and finish coat, shall be not less than the following:

1. Epoxy enamel.

   Surfaces with first coat of epoxy enamel and final coat of aliphatic polyurethane - 7 mils (5 mils DFT for epoxy plus 2 mils DFT for aliphatic polyurethane).

   Surfaces with first and second coat of epoxy enamel and final coat of aliphatic polyurethane - 12 mils (10 mils DFT for epoxy plus 2 mils DFT for aliphatic polyurethane).

   Other surfaces (two coats) - 10 mils.

   Immersion service (three coats) - 15 mils.

2. Vinyl ester - 30 mils.

3. Other (one coat) - 5 mils.

4. Other (two coats) - 10 mils.

5. Concrete wet pit lining systems shall meet the minimum thickness requirements specified in Paragraph 2.3 and shall govern over the general coating thickness requirements listed herein.

G. Weather Conditions. Coatings shall not be applied, except under shelter, during wet, damp, or foggy weather, or when windblown dust, dirt, debris, or insects will collect on freshly applied coating.

1. Coatings shall not be applied at temperatures lower than the minimum temperature recommended by the coating manufacturer, or to metal surfaces such as tanks or pipe containing cold water, regardless of the air temperature, when metal conditions are likely to cause condensation. When necessary for proper application, a temporary enclosure shall be erected and kept heated until the coating has fully cured.

2. Coatings shall not be applied at temperatures higher than the maximum temperature recommended by the coating manufacturer. Where coatings are applied during periods of elevated ambient temperatures, Contractor and the coatings manufacturer shall be jointly responsible to ensure that proper application is performed including adherence to all re-coat window requirements. Precautions shall be taken to reduce the temperature of the surface application, especially for metal, at elevated temperatures above 100°F including shading application area from direct sunlight, applying coating in the evening or at night, and ventilating the area to reduce the humidity and temperature,

3. Vinyl ester coating materials, when required, shall be maintained during transportation, storage, mixing, and application at the temperature required by the coating manufacturer, 35°F to 90°F.

3.4 REPAIRING FACTORY FINISHED SURFACES

Factory finished surfaces damaged prior to acceptance by Owner shall be spot primed and recoated with materials equivalent to the original coatings. If, in the opinion of Owner's Representative, spot repair of the damaged area is not satisfactory, the entire surface or item shall be recoated.

3.5 PROTECTION OF SURFACES

Throughout the work Contractor shall use drop cloths, masking tape, and other suitable measures to protect adjacent surfaces. Contractor shall be responsible for correcting and repairing any damage resulting from its or its subcontractors' operations. Coatings spilled or spattered on adjacent surfaces which are not being coated at the time shall be immediately removed. Exposed concrete or masonry not specified to be coated which is damaged by coatings shall be either removed and rebuilt or, where authorized by Owner, coated with two coats of masonry coating.

3.6 FIELD QUALITY CONTROL

The following inspection and testing shall be performed: surface profile, visual inspection, and wet and dry film thickness testing. All inspection and testing shall be witnessed by Owner's Representative.

A. Surface Profile Testing. The surface profile for ferrous metal surfaces shall be measured for compliance with the specified minimum profile. The surface profile for concrete shall comply with SSPC 13/NACE 6 Table 1 for severe service.

B. Visual Inspection. The surface of the protective coatings shall be visually inspected.

C. Film Thickness. Coating film thickness shall be verified by measuring the film thickness of each coat as it is applied and the dry film thickness of the entire system. Wet film thickness shall be measured with a gauge that will measure the wet film thickness within an accuracy of ±0.5 mil. Dry film thickness shall be measured in accordance with SSPC-PA 2.

3.7 FIELD PRIMING SCHEDULE

In general, steel and cast iron surfaces of equipment are specified to be shop primed. Any such surfaces which have not been shop primed shall be field primed. Damaged or failed shop coatings which have been determined unsuitable by Owner's Representative shall be removed and the surfaces shall be field coated, including prime coat (if any). Galvanized, aluminum, stainless steel, and insulated surfaces shall be field primed. Primers used for field priming, unless otherwise required for repair of shop primers, shall be:

A. Equipment, surfaces to be coated with:

1. Aliphatic polyurethane - Universal primer.

2. Epoxy enamel - Same as finish coats.

3. Coal tar coating - Same as finish coats.

4. Vinyl ester - Same as finish coats.

B. Steel and cast iron, surfaces to be coated with;

1. Epoxy enamel - Same as finish coats.

2. Coal tar coating - Same as finish coats.

C. Aluminum - Epoxy enamel.

D. Galvanized - Epoxy enamel.

E. Copper - Epoxy enamel.

F. Stainless steel - Epoxy enamel.

G. Plastic surfaces, including PVC and FRP - Same as finish coats.

H. Insulated piping - As recommended by manufacturer of finish coats.

3.8 FINISH COATING SYSTEMS. The following schedule lists coatings systems and coating system designations.

No.	Finish Coating System	Coating System Designation						
		A	C	E	F	G	H	P
1	Epoxy enamel - One coat	X			X			
2	Epoxy enamel - Two coats	X						
3	Epoxy enamel / NSF - Two coats	X		X				
6	Epoxy enamel - First coat Aliphatic polyurethane - Finish coat	X			X			
8	Universal primer - First coat Aliphatic polyurethane - Finish coat			X				

A. Surfaces Not To Be Coated. Unless otherwise specified, the following surfaces shall be left uncoated:

1. Exposed aluminum.

2. Polished or finished stainless steel. Unfinished stainless steel shall be coated.

3. Nickel or chromium.

4. Galvanized surfaces, except piping and other items specifically noted.

5. Rubber.

6. Surfaces specified to be factory finished.

B. Shop Finishing. Items to be shop finished include the following. Shop finishing shall be in accordance with the coating schedule and the manufacturer's recommendations.

1. Other surfaces where blast cleaning cannot be or is not recommended to be performed in the field.

2. Other items as otherwise specified.

C. Field Coating. Items to be field coated include the following. Field coating shall be in accordance with the field priming schedule, the coating schedule, and the manufacturer's recommendations.

1. Surfaces not indicated to be shop finished and surfaces where blast cleaning can be performed in the field.

2. All interior ferrous metal surfaces except stainless steel.

3. Other items as otherwise specified.

3.9 METAL SURFACES COATING SCHEDULE. The items to be coated and the Finish Coating System are indicated below:

A. Non-galvanized and galvanized miscellaneous steel exposed to view or to the elements in exterior locations. – A6

B. Non-galvanized and galvanized miscellaneous steel exposed to view inside buildings. – A2

C. Unless otherwise specified, pumps, motors, speed reducers, and other machines and equipment exposed to view. – E8

D. Ductile and cast iron and steel piping inside buildings, including valves, fittings, flanges, bolts, supports, and accessories, and galvanized surfaces after proper priming. – A2

E. Ductile and cast iron and steel piping above grade exposed to the elements and to view outdoors, including valves, fittings, flanges, bolts, supports, and accessories, and galvanized surfaces after proper priming. – A6

F. Copper pipe and tubing, including fittings and valves. – F1

G. Copper pipe and tubing, including fittings and valves exposed to view in exterior locations. – F6

H. Exterior surfaces of carbon steel tanks. – Outdoor – A6; Indoor – A1

I. Interior surfaces of carbon steel tanks. – A3

J. All metal surfaces, unless otherwise specified, which will be buried, all or in part, including valves. – E3

3.10 PIPING IDENTIFICATION SCHEDULE. Exposed piping and piping in accessible chases shall be identified with lettering or tags designating the service of each piping system, marked with flow directional arrows, and color coded.

A. Piping scheduled to be color coded shall be completely coated with the indicated colors, except surfaces specified to remain uncoated shall include sufficiently long segments of the specified color to accommodate the lettering and arrows. All other piping shall be coated to match adjacent surfaces, unless otherwise directed by Owner's Representative.

B. Location. Lettering and flow direction arrows shall be provided on pipe near the equipment served, adjacent to valves, on both sides of wall and floor penetrations, at each branch or tee, and at least every 50 feet in straight runs of pipe. If, in the opinion of Owner's Representative, this requirement will result in an excessive number of labels or arrows, the number required shall be reduced as directed.

C. Metal Tags. Where the outside diameter of pipe or pipe covering is 5/8 inch or smaller, aluminum or stainless steel tags shall be provided instead of lettering. Tags shall be stamped as specified and shall be fastened to the pipe with suitable chains. Pipe identified with tags shall be color coded as specified.

D. Lettering. Lettering shall be painted or stenciled on piping or shall be applied as snap-on markers. Snap-on markers shall be plastic sleeves, Brady "Bradysnap-On B-915" or Seton "Setmark". Letter size shall be as follows:

Outside Diameter of Pipe or Covering	Minimum Height of Letters

5/8 inch and smaller	Metal tags -1/4 inch
3/4 to 4 inches	3/4 inch
5 inches and larger	2 inches

E. Color Coding and Lettering. All piping for the following services shall be color coded. Bands shall be 6 inches wide spaced along the pipe at 5 foot intervals. For services not listed, the color coding and lettering shall be as directed by the Owner's Representative.

Piping Identification		
Service	Color of Pipe	Color of Letters
Compressed Air	Light Green	Black
Potable Water (hot or cold)	Dark Blue	White
Sodium Hypochlorite	Yellow	Black
Sanitary Sewer and Plumbing Vent	Dark Grey	White
Backwash	Light Brown	White

F. In addition, special coating of the following items will be required:

1. Valve hand wheels and levers - Red.

G. Numerals at least 2 inches high shall be painted on or adjacent to all accessible valves, pumps, flow meters, and other items of equipment which are identified on the drawings or in the specifications by number.

NEW YORK STATE THRUWAY AUTHORITY C&S #185.026.004
NIAGARA PUMP HOUSE UPGRADE

Coating Data Sheet

Figure 1-09960

SURFACE DESCRIPTION:

SYSTEM NO.:

SURFACE PREPARATION DESCRIPTION

□ Solvent SSPC-SP1

Ferrous Metal Non-immersion

□ SSPC-SP6

Ferrous Metal Immersion

□ SSPC-SP10

□ SSPC-SP-5

□ Other

COATING	DFT mils	MANUFACTURER AND PRODUCT
First Coat (Primer)		
Second Coat		
Third Coat		
Total System		Not less than minimum thickness specified.
Notes: (Attached if needed.)		

Project:

Coatings Manufacturer:

Painting Applicator:

Coating Data Sheet

Figure 2-09960

SURFACE DESCRIPTION:

SYSTEM NO.: - F

SURFACE PREPARATION DESCRIPTION

□ Solvent SSPC-SP1

□ Other

COATING	DFT mils	MANUFACTURER AND PRODUCT
Shop Coat (Primer)		
Touchup		
Intermediate Coat		
Finish Coat		
Total System		Not less than minimum thickness specified.
Notes: (Attached if needed.)		

Project:

Coatings Manufacturer:

Painting Applicator:

END OF SECTION 09960

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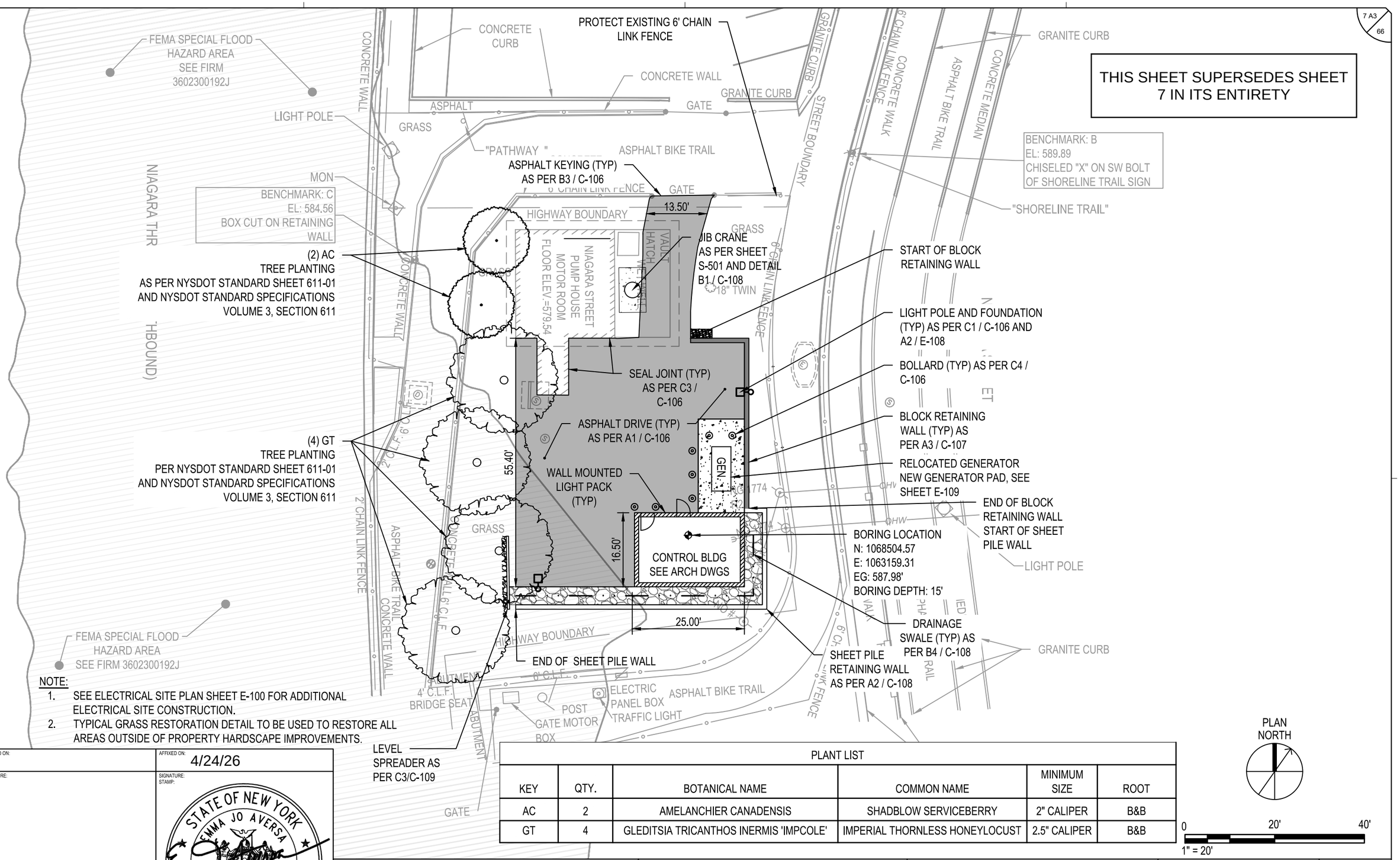
THIS SHEET SUPERSEDES SHEET 7 IN ITS ENTIRETY



NOTE:

1. SEE ELECTRICAL SITE PLAN SHEET E-100 FOR ADDITIONAL ELECTRICAL SITE CONSTRUCTION.
2. TYPICAL GRASS RESTORATION DETAIL TO BE USED TO RESTORE ALL AREAS OUTSIDE OF PROPERTY HARDSCAPE IMPROVEMENTS.

PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	ROOT
AC	2	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	2" CALIPER	B&B
GT	4	GLEDITSIA TRICANTHOS INERMIS 'IMPCOLE'	IMPERIAL THORNLESS HONEYLOCUST	2.5" CALIPER	B&B

PLAN NORTH

0 20' 40'
1" = 20'

ALTERED ON:	AFFIXED ON: 4/24/26
SIGNATURE: STAMP:	SIGNATURE: STAMP:

STATE OF NEW YORK
EMMA JO AVERSA
108336
LICENSED PROFESSIONAL ENGINEER

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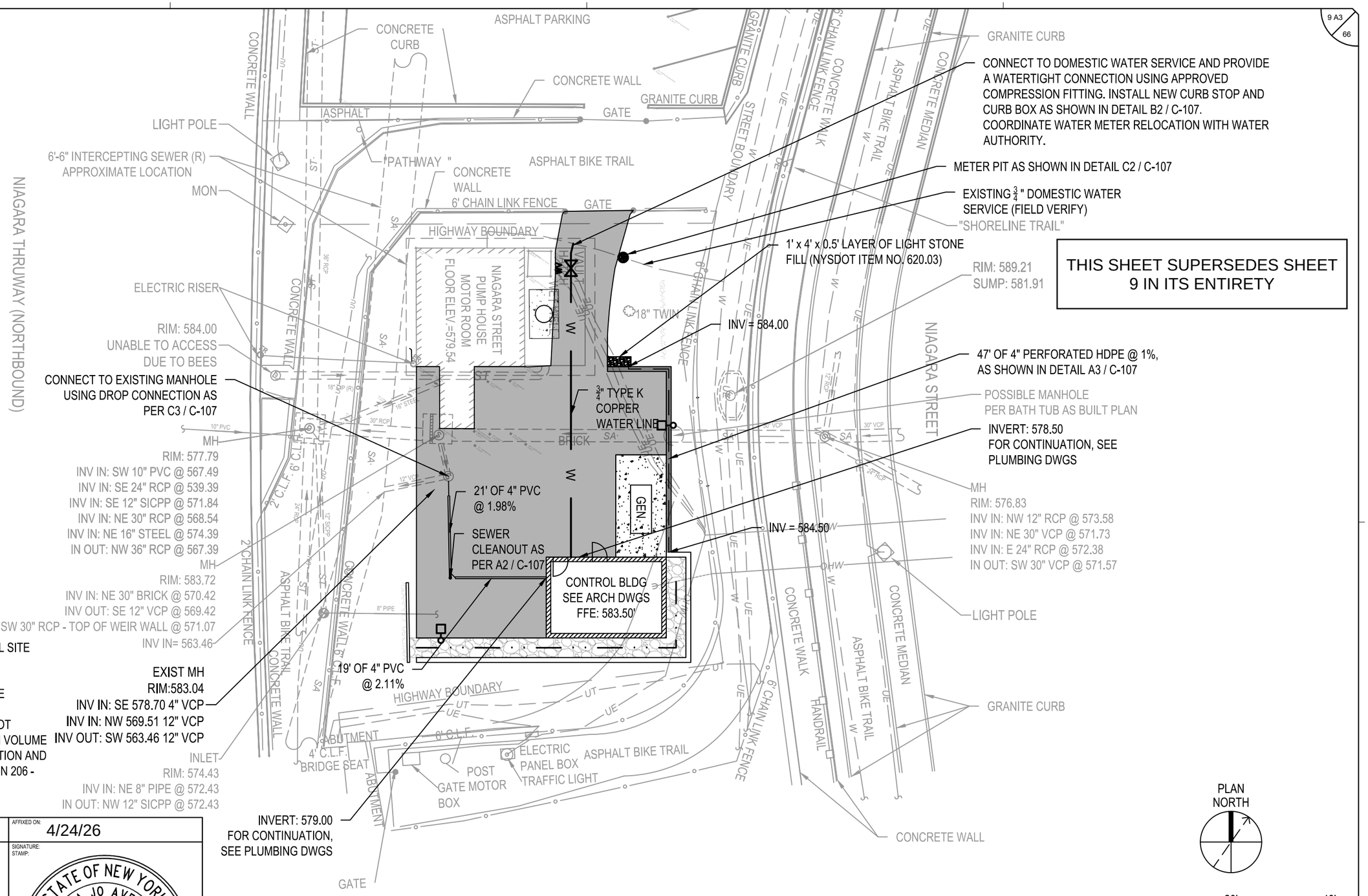
TITLE OF PROJECT	NIAGARA STREET PUMP STATION
LOCATION OF PROJECT	1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING	CIVIL SITE PLAN
CONTRACT NUMBER:	D215077
DATE:	4/24/26
DRAWING NUMBER:	C-103

PW:/ CHECKED BY: DRAFTED BY: CHECKED BY: DESIGNED BY: DESIGN SUPERVISOR: ERIC KENNA, PE.



THIS SHEET SUPERSEDES SHEET 9 IN ITS ENTIRETY

PLAN NORTH

0 20' 40'
1" = 20'

NOTES:

1. SEE E-100 FOR ELECTRICAL SITE PLAN
2. ALL EARTHWORK AND PIPE TRENCHING SHALL BE IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION VOLUME 2, SECTIONS 203 - EXCAVATION AND EMBANKMENT AND SECTION 206 - TRENCH, CULVERT, AND STRUCTURE EXCAVATION.

ALTERED ON:	AFFIXED ON: 4/24/26
SIGNATURE: STAMP:	SIGNATURE: STAMP: STATE OF NEW YORK EMMA JO AVERSA 108336 LICENSED PROFESSIONAL ENGINEER

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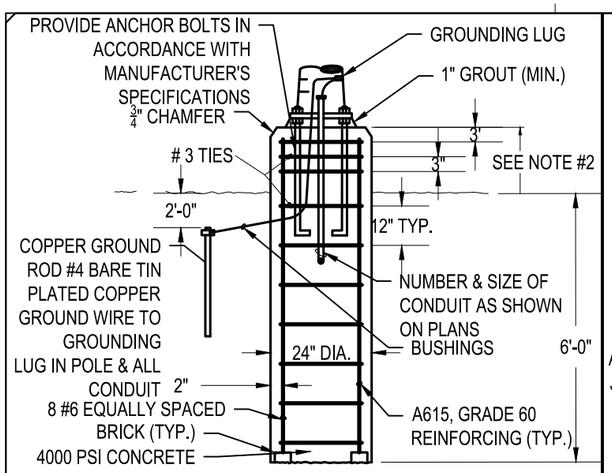
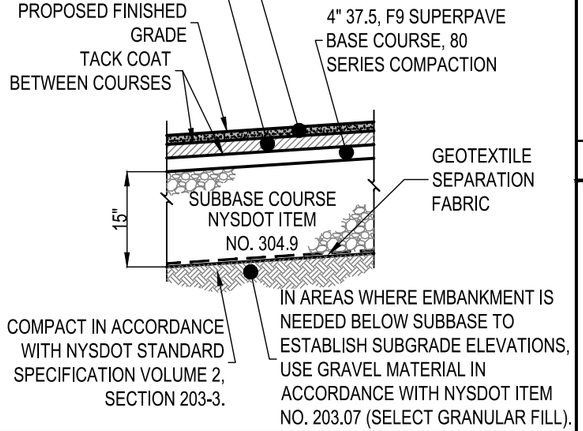
TITLE OF PROJECT	NIAGARA STREET PUMP STATION
LOCATION OF PROJECT	1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING	CIVIL UTILITY PLAN
CONTRACT NUMBER:	D215077
DATE:	4/24/26
DRAWING NUMBER:	C-105

PW:/ CHECKED BY: DRAFTED BY: CHECKED BY: DESIGNED BY: DESIGN SUPERVISOR: ERIC KENNA, PE.

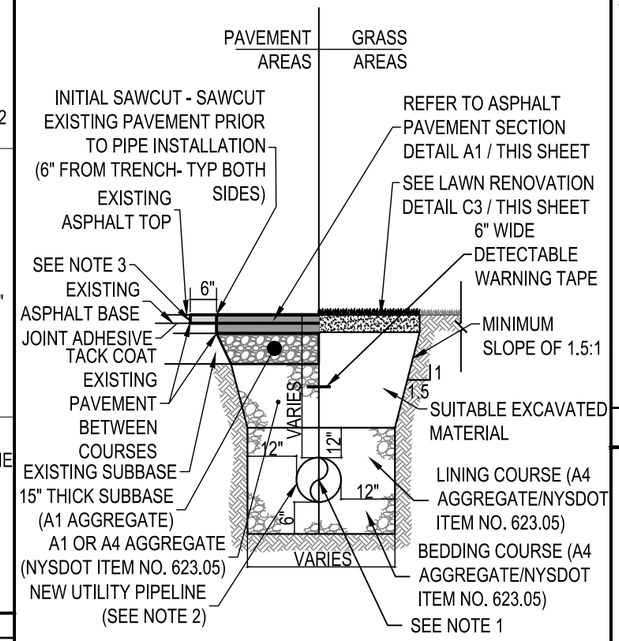


NOTES:
1. AUGER HOLES FOR FOOTING, INSPECT THE EXCAVATION & NOTIFY THE ENGINEER OF UNSUITABLE MATERIALS BEFORE PLACING THE STEEL & CONCRETE.
2. LIGHT POLE BASE SHALL BE:
- 30" ABOVE GRADE IN PAVED AREAS
- 12" ABOVE THE CURB IN LANDSCAPED AREAS
- 30" ABOVE GRADE IN AREAS W/O CURBING

C1 LIGHT POLE FOUNDATION DETAIL
SCALE: N.T.S.



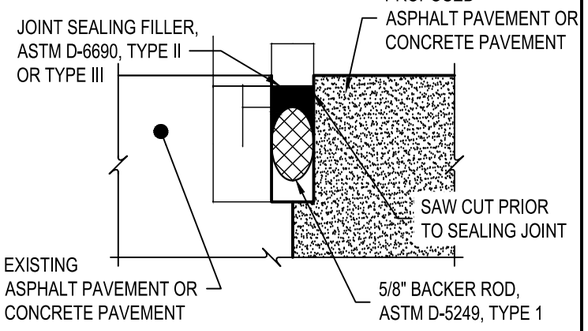
A1 TYPICAL HEAVY DUTY PAVEMENT SECTION
SCALE: N.T.S.



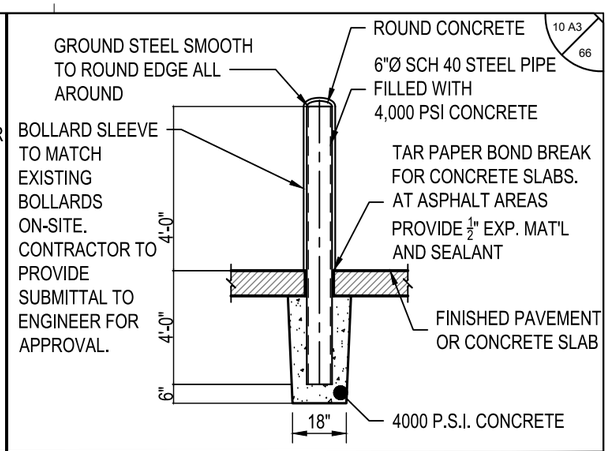
NOTES:
1.) PROVIDE MINIMUM 5'-0" COVER FOR NEW WATER MAINS.
2.) THIS UTILITY PIPING DETAIL IS FOR THE CONSTRUCTION OF NEW STORM, SANITARY & WATER PIPING.
3.) FINAL SAWCUT - SAWCUT EXISTING PAVEMENT PRIOR TO FINAL PAVING (6" FROM INITIAL SAWCUT - TYP. BOTH SIDES)
4.) ALL PIPE TRENCHING SHALL BE IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION VOLUME 2, SECTION 206 - TRENCH, CULVERT, AND STRUCTURE EXCAVATION.

B2 TYPICAL UTILITY TRENCHING DETAIL
SCALE: N.T.S.

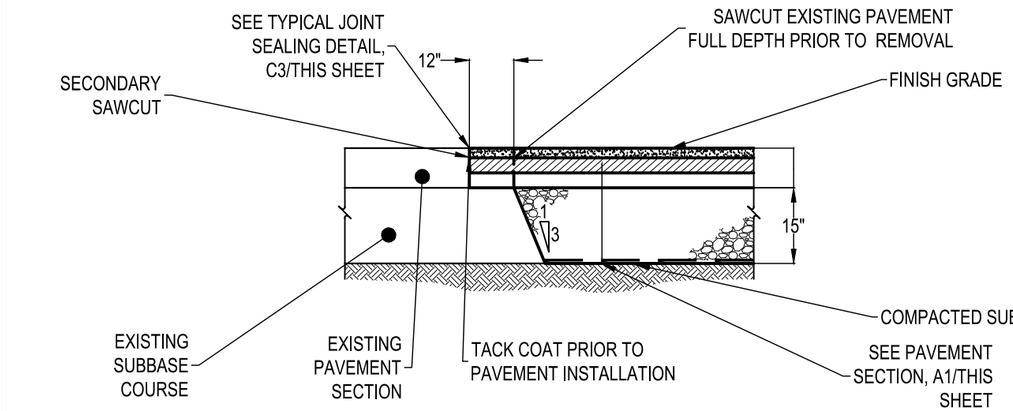
NOTES:
1.) FOR JOINTS AGAINST BUILDINGS, SEAL JOINT WITH JOINT SEALING FILLER ASTM D-6690, TYPE II OR TYPE III ONLY. DO NOT SAW CUT OR PROVIDE BACKER ROD.



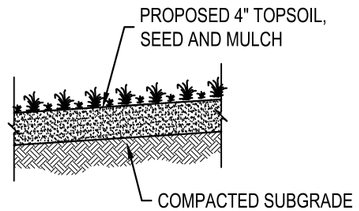
C3 TYPICAL JOINT SEALING DETAIL
SCALE: N.T.S.



C4 TYPICAL BOLLARD DETAIL
SCALE: N.T.S.



B3 ASPHALT KEYING DETAIL
SCALE: N.T.S.



A3 TYPICAL GRASS RESTORATION DETAIL
SCALE: N.T.S.

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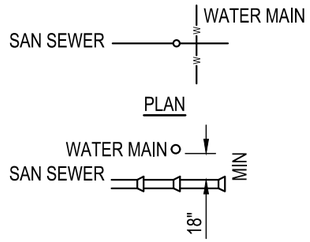
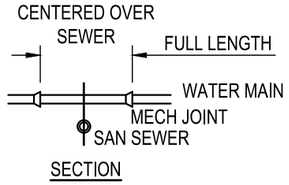
TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: CIVIL SITE DETAILS

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: C-106

PW:/
CHECKED BY:
DRAFTED BY:
DESIGNED BY:
DESIGN SUPERVISOR: ERIC KENNA, PE.



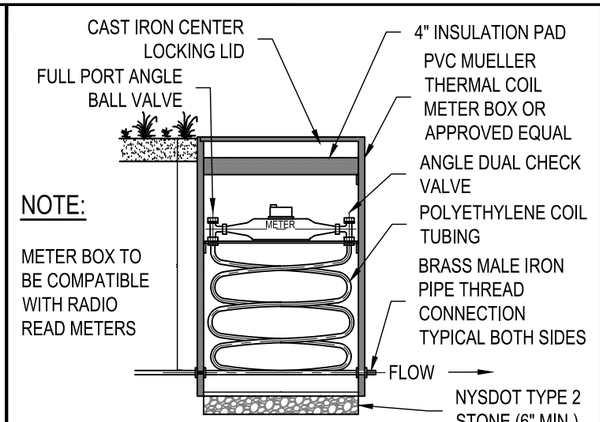
* IF CLEARANCE CAN NOT BE OBTAINED, WATER MAIN SHALL BE LOWERED TO PROVIDE 18" CLEARANCE, OR RECONSTRUCTED WITH M.J. PIPE 10' ON EACH SIDE OF THE SEWER.



NOTE:

WHEREVER REQUIRED VERTICAL CLEARANCE CAN NOT BE OBTAINED, THE SANITARY SEWER SHALL BE ENCASED IN NYSDOT CLASS "A" CONCRETE FOR A DISTANCE OF 10' EITHER SIDE OF THE INTERSECTION WITH THE WATER MAIN AS INSTRUCTED BY THE ENGINEER. CLEARANCE REQUIREMENTS SHALL BE AS OUTLINED IN PART 8.6 IN THE "RECOMMENDED STANDARDS FOR WATER WORKS." ALSO REQUIRED IS A 10' MINIMUM HORIZONTAL SEPARATION BETWEEN STORM SEWERS & WATER MAINS.

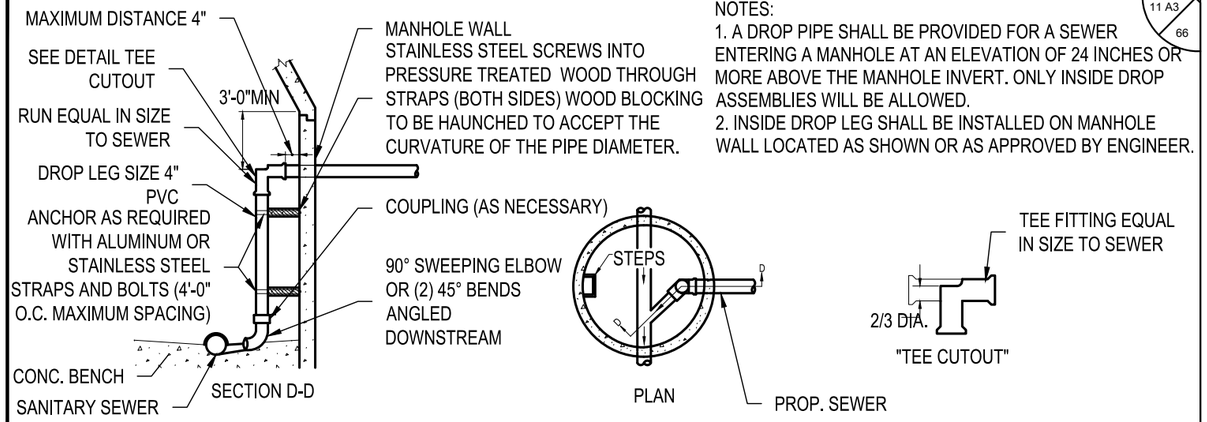
B1 SEWER MAIN AND WATER MAIN SEPARATION DETAIL
SCALE: N.T.S.



NOTE:

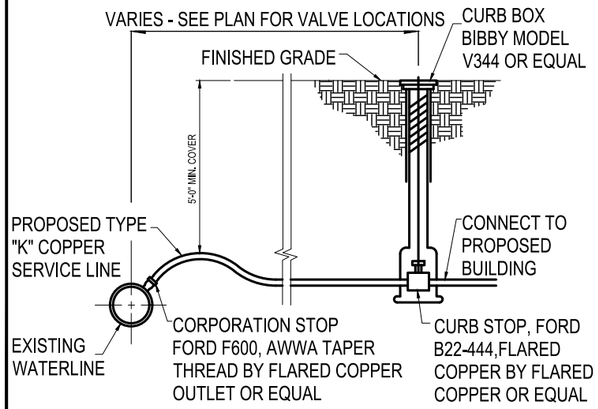
METER BOX TO BE COMPATIBLE WITH RADIO READ METERS

C2 TYPICAL WATER METER PIT DETAIL
SCALE: N.T.S.

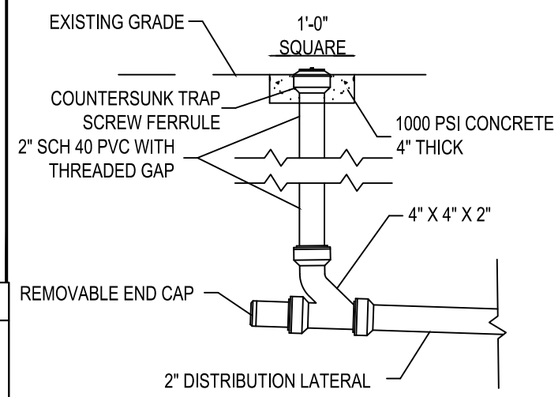


NOTES:
1. A DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE AT AN ELEVATION OF 24 INCHES OR MORE ABOVE THE MANHOLE INVERT. ONLY INSIDE DROP ASSEMBLIES WILL BE ALLOWED.
2. INSIDE DROP LEG SHALL BE INSTALLED ON MANHOLE WALL LOCATED AS SHOWN OR AS APPROVED BY ENGINEER.

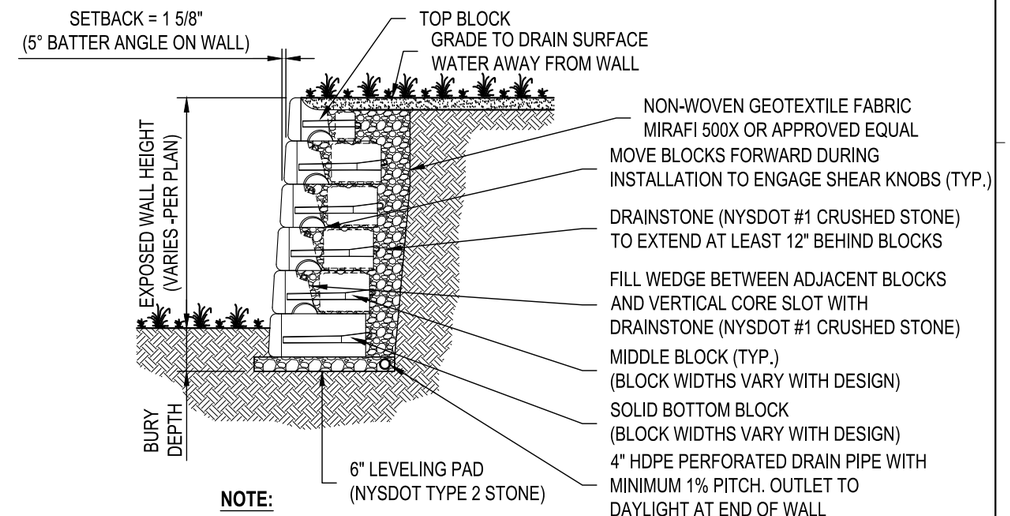
C3 INSIDE DROP CONNECTION DETAIL
SCALE: N.T.S.



B2 TYPICAL WATER SERVICE DETAIL
SCALE: N.T.S.



A2 TYPICAL SEWER CLEANOUT DETAIL
SCALE: N.T.S.



NOTE:

RETAINING WALL BLOCKS SHALL BE REDI-ROCK® OR APPROVED EQUAL.

A3 TYPICAL BLOCK RETAINING WALL DETAIL
SCALE: N.T.S.

THIS SHEET SUPERSEDES SHEET 11 IN ITS ENTIRETY

PW:/
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DRAFTED BY:
CHECKED BY:
DESIGNED BY:
DESIGN SUPERVISOR: ERIC KENNA, PE.

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EMMA JO AVERSA
108336
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TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: CIVIL SITE DETAILS

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: C-107

PW:/

CHECKED BY:

DRAFTED BY:

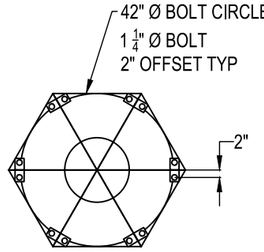
CHECKED BY:

DESIGNED BY:

DESIGN SUPERVISOR: ERIC KENNA, PE.

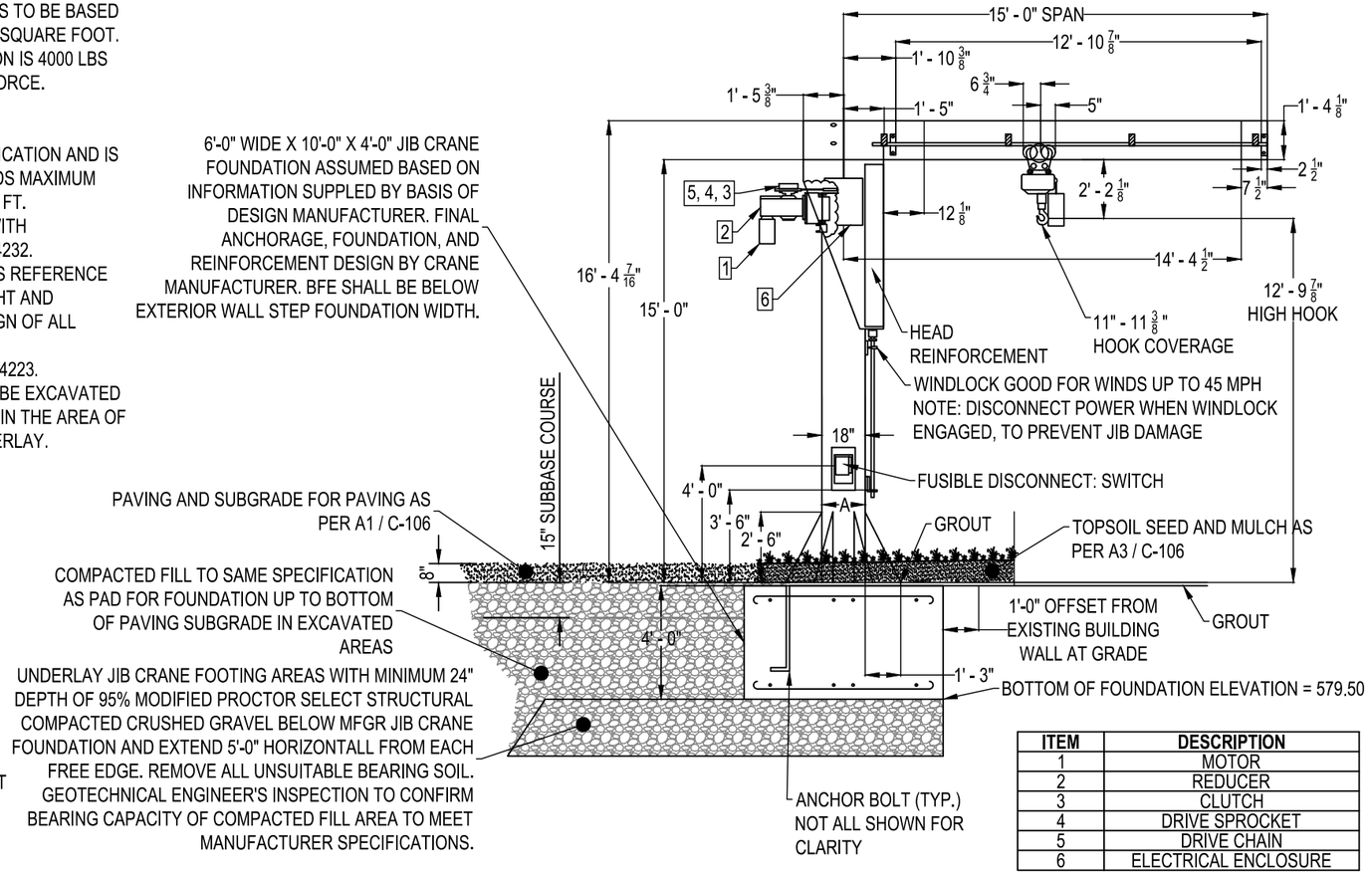
NOTES:

1.) JIB CRANE FOUNDATION REQUIREMENTS TO BE BASED ON A SOIL PRESSURE OF 2000 LBS PER SQUARE FOOT. CONCRETE FOR JIB CRANE FOUNDATION IS 4000 LBS PER SQUARE INCH OF COMPRESSIVE FORCE.
2.) DO NOT SCALE FROM THIS DRAWING.
3.) OVERALL HEIGHT = 16.368 FT
4.) THIS CRANE IS FOR AN OUTDOOR APPLICATION AND IS DESIGNED TO OPERATE IN 15 MPH WINDS MAXIMUM WITH A LOAD SURFACE AREA OF 64 SQ. FT.
5.) JIB CRANE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTIONS 14223 AND 14232.
6.) INFORMATION SHOWN ON THIS DETAIL IS REFERENCE FOR REQUIRED REACH CAPACITY HEIGHT AND CLEARANCES FOR PRICING FINAL DESIGN OF ALL ELEMENTS INCLUDING FOUNDATION BY MANUFACTURER. SEE SPECIFICATION 14223.
7.) A MINIMUM OF 6'-0" OF MATERIAL SHALL BE EXCAVATED AND REMOVED FROM EXISTING GRADE IN THE AREA OF THE JIB CRANE FOUNDATION AND UNDERLAY.



12 BOLT
BASE BOLT PATTERN
1 1/4" BASE PLATE THICKNESS AT ANCHOR BOLT

VIEW A

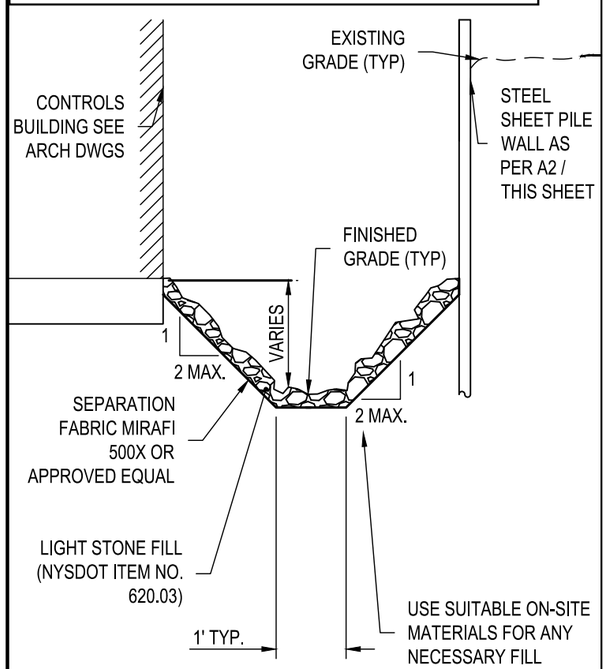


ITEM	DESCRIPTION
1	MOTOR
2	REDUCER
3	CLUTCH
4	DRIVE SPROCKET
5	DRIVE CHAIN
6	ELECTRICAL ENCLOSURE

B1 JIB CRANE
SCALE: NOT TO SCALE

THIS SHEET SUPERSEDES SHEET 12 IN ITS ENTIRETY

12 A3
66



B4 TYPICAL SWALE SECTION
SCALE: N.T.S.

ALTERED ON:

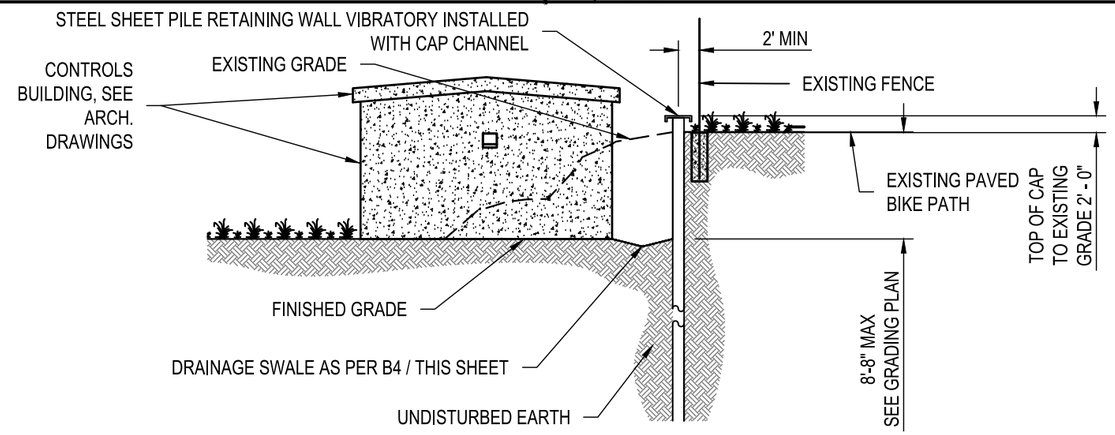
AFFIXED ON: 4/24/26

SIGNATURE:
STAMP:

SIGNATURE:
STAMP:

SHEET PILE NOTES:

1. VIBRATORY DRIVEN SHEET PILE WALL PZ40 DRIVEN TO 28FT AFTER ALL EXISTING UTILITIES ARE CONFIRMED BEYOND EXTENT OF WALL (ENGINEERED BY CONTRACTOR, PRELIMINARY DESIGN PROVIDED FOR BIDDING).
2. PROVIDE TEMPORARY RAKERS AND / OR CORNER BRACES AS REQUIRED ON SITE DURING REMOVAL OF EXISTING SOILS TO ASSURE NO UNDUE DEFLECTION OF THE ASSEMBLY, NOR PROJECT DELAY OCCURS SHOULD UP TO 2 FEET OF EXCESS SOIL REMOVAL DEPTH BE NEEDED (SUPPORT OF EXCAVATION ENGINEERED BY CONTRACTOR).
3. MC18X42.7 OR W18X35 CONTINUOUS CAP WHALER, WELDED MOMENT CONN AT CORNERS. DRILL W18 WEB FOR DRAINAGE. (ENGINEERED BY CONTRACTOR, PRELIMINARY DESIGN PROVIDED FOR BIDDING).



A2 TYPICAL STEEL SHEET PILE WALL DETAIL
SCALE: N.T.S.

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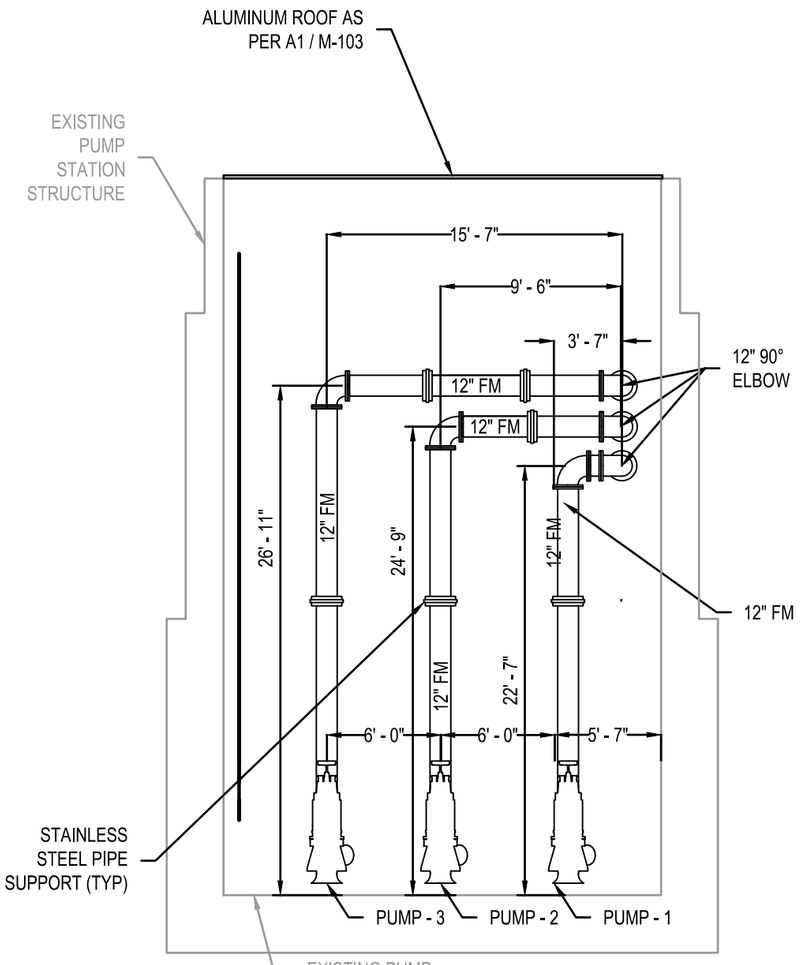
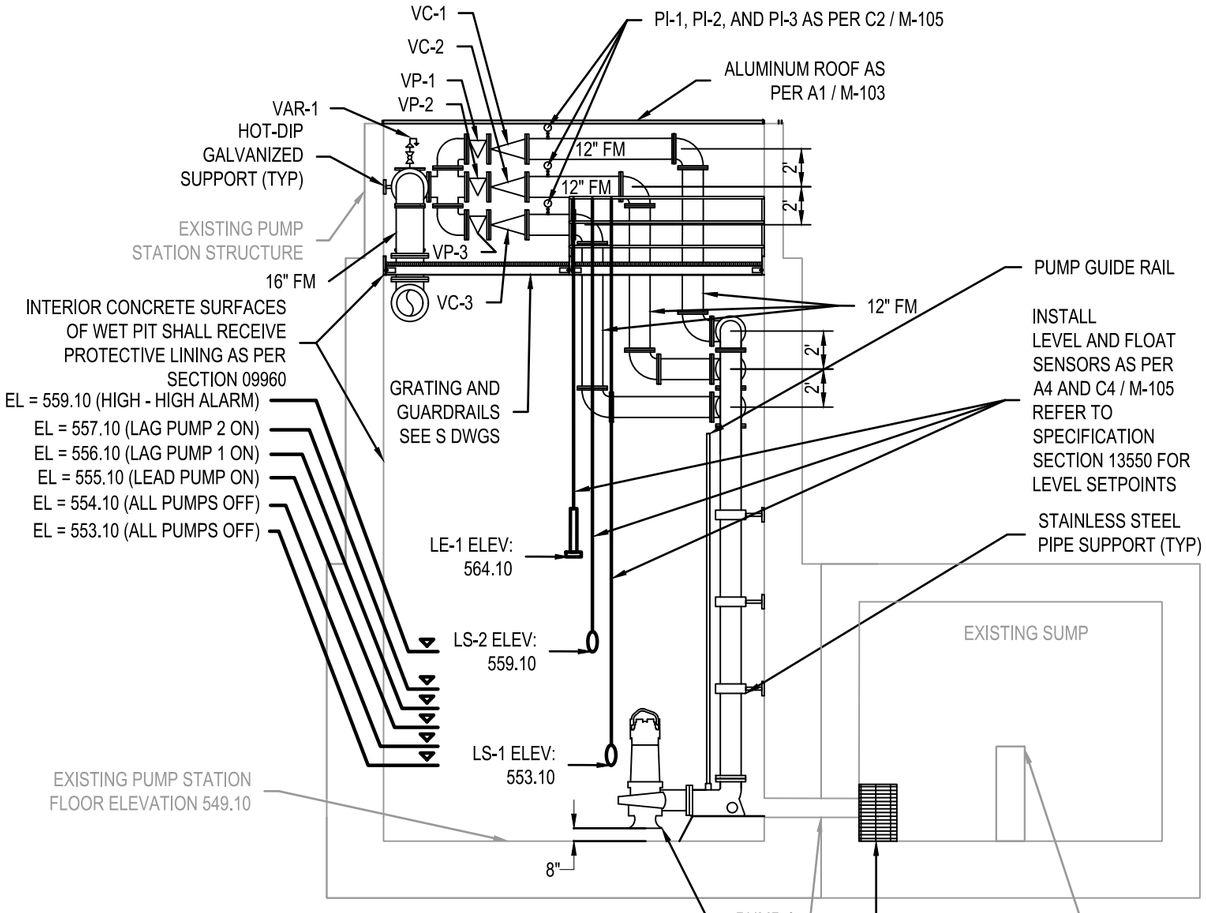
www.cscos.com

TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: CIVIL SITE DETAILS

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: C-108



A1 ELEVATION
SCALE: 1/8" = 1'-0"



NOTE:
PIPE SCREENS TO BE ATTACHED TO 10" DIA. PUMP SUCTION PIPING AT BOTTOM OF WETWELL. (TYP. 4). 4TH SCREEN IS TO BE INSTALLED ON SPARE SUCTION PIPE.

A2 ELEVATION
SCALE: 1/8" = 1'-0"

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STATE OF NEW YORK
EMMA JO AVERSA
108336
LICENSED PROFESSIONAL ENGINEER

THIS SHEET SUPERSEDES SHEET 40 IN ITS ENTIRETY

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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DATE	DESCRIPTION	BY	SYM.

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Syracuse, New York 13212
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TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: PROCESS MECHANICAL PLAN

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: M-104

DESIGN SUPERVISOR: ERIC KENNA, PE.
DESIGNED BY:
CHECKED BY:
DRAFTED BY:
CHECKED BY:
PW:/

THIS SHEET SUPERSEDES SHEET 42 IN ITS ENTIRETY

HEATER SCHEDULE

UNIT NUMBER	LOCATION	TYPE	UNIT ORIENTATION	AIR FLOW (CFM)	CAPACITY (KW)	POWER (VAC / PH)	MOTOR (HP)	APPROX WEIGHT (LBS)	NOTES:
WH-1	REST	WH	SURFACE MOUNT	100	3.0	208 / 1	-	40	

SPLIT AIR CONDITIONING SYSTEM SCHEDULE

UNIT NUMBER	LOCATION	COOLING		EAT		HEATING CAPACITY (MBTUH)				FILTER DATA			
		AIRFLOW (CFM)	CAPACITY (MBTUH)	FDB	FWB		POWER (VAC / PH)	MIN CIRCUIT AMPACITY	ARI MINIMUM EFFICIENCY	TYPE	THICKNESS (IN)	OA (CFM)	APPROX WEIGHT (LBS)
SPLIT-1	ELECT	335	14.0	76.2	64.0	6.8	208 / 1	14.2	9.2 EER	WASHABLE	1	NA	150

FAN SCHEDULE

UNIT NUMBER	LOCATION	AIR FLOW (CFM)	ESP (IN WG)	MOTOR (AMPS)	POWER SUPPLY (VOLTS / PHASE)	MIN WHEEL DIA (IN)	DRIVE	APPROX WEIGHT (LBS)	MATERIALS	ARRANGEMENT	NOTES
EF-1	REST	110	0.1	0.3	120 / 1	NA	DIRECT	NA	PLASTIC / COATED STEEL	CEILING	BROAN MODEL QTXEG110X

NOTE: CONTRACTOR SHALL PROVIDE ANY ADDITIONAL HANGERS OR SUPPORTS REQUIRED FOR CEILING MOUNT INSTALLATION.

B1 HVAC SCHEDULES
SCALE: 1/4" = 1'-0"

NOTES:

1. SEE DRAWING E-001 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. SEE DRAWING E-200 FOR PANEL BOARD SCHEDULES.
3. SEE DRAWING E-001 FOR AREA DESIGNATIONS.
4. MOUNTING LOCATION AND HEIGHT OF ALL CONTROL PANELS (LCP DESIGNATION) MUST BE APPROVED BY THE ENGINEER PRIOR TO MOUNTING.
5. PROVIDE HEAT PUMP SYSTEM CONSISTING OF THE FOLLOWING COMPONENTS OR APPROVED EQUALS. MITSUBISHI MSZFE18NA HYPER HEAT INDOOR UNIT 208 VAC, 1 PHASE.
   - 5.1. MITSUBISHI MUZFE18NA HYPER HEAT OUTDOOR UNIT 208 VAC, 1 PHASE.
   - 5.2. MAC-642BH-U DRAIN PAN HEATER.
   - 5.3. MITLS385815 LINE SET W/ INSULATION.
   - 5.4. MHK1 CONTROLLER.
6. ROUTE COOLANT PIPING, CONDENSATE DRAIN AND ELEC CONDUIT THRU WALL PENETRATION.

PW:/
CHECKED BY:
DRAFTED BY:
DESIGNED BY:
DESIGN SUPERVISOR: ERIC KENNA, PE.

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A1 HVAC NOTES
SCALE: 1/4" = 1'-0"

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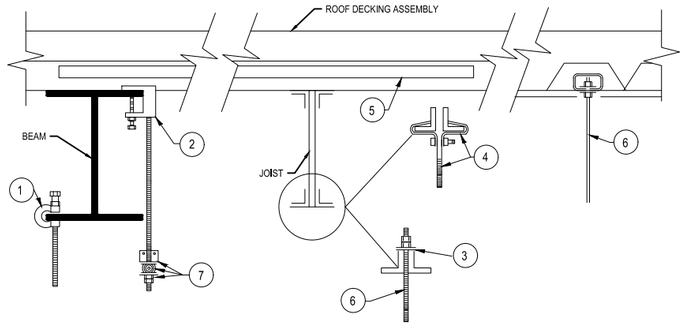
TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: HVAC NOTES AND SCHEDULES

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: H-001

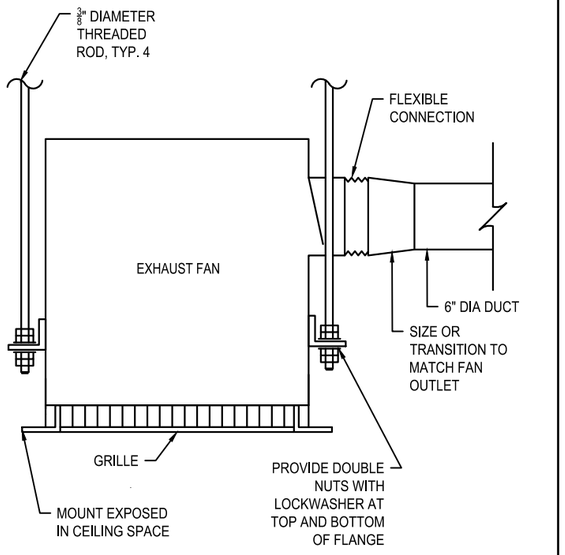
THIS SHEET SUPERSEDES SHEET 43 IN ITS ENTIRETY



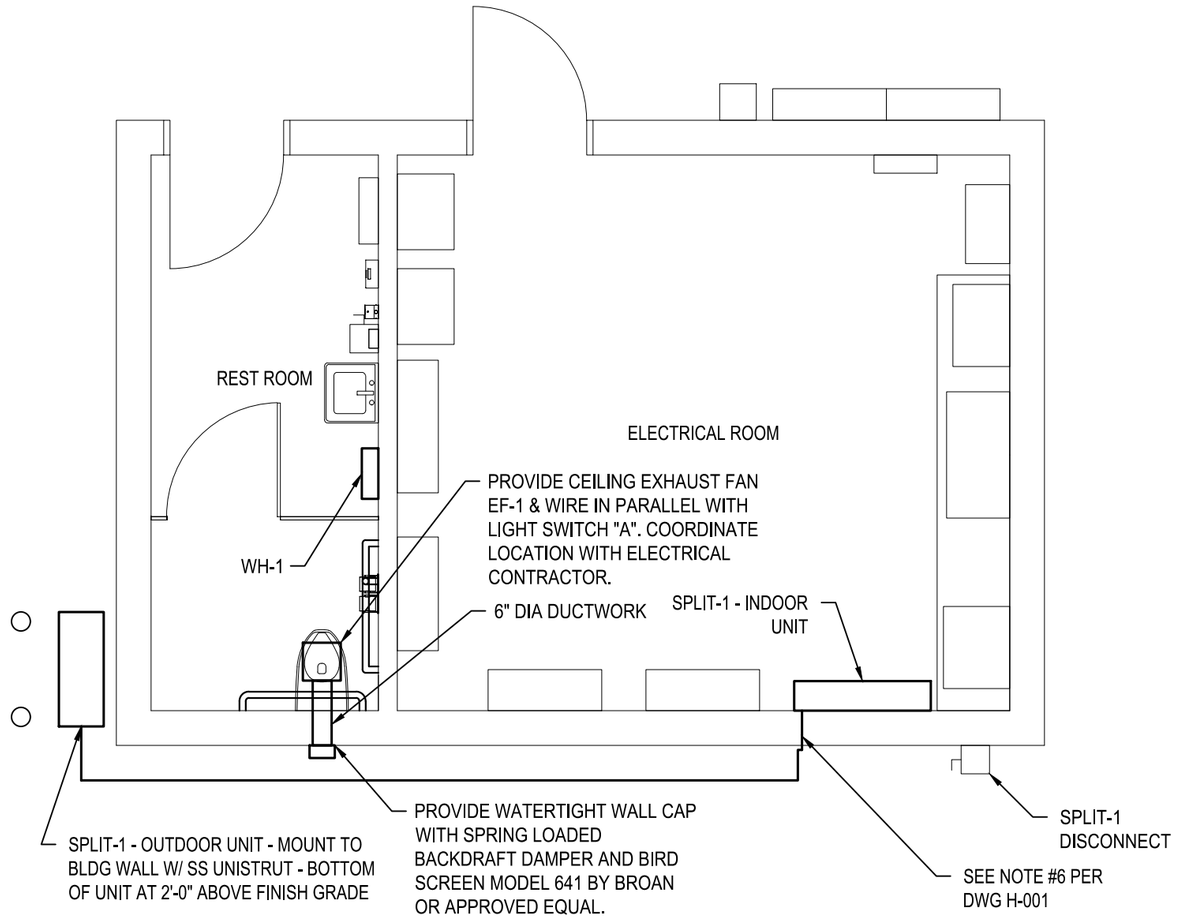
1. BOTTOM FLANGE MOUNTED "C" CLAMP WITH SET SCREWS & LOCKNUT. (FOR USE ON BEAMS ONLY. NOT ALLOWED ON JOISTS).
2. TOP FLANGE MOUNTED "C" CLAMP WITH SET SCREWS & LOCKNUT. (FOR USE ON BEAMS ONLY, NOT ALLOWED ON JOISTS).
3. CADMIUM PLATED STEEL PLATE WASHER WITH DOUBLE NUT.
4. CONCENTRIC BEAM CLAMP WITH THREADED, WELDED EYE ROD. FOR USE WITH JOISTS AND BEAMS.
5. CHANNEL SPANNING BETWEEN BEAMS AND/OR JOISTS IN DECKING CAVITY. SET ON AND SECURE TO BEAMS AND JOISTS.
6. CADMIUM PLATED STEEL ALL-THREAD RODS.
7. VIBRATION ISOLATION DEVICE ASSEMBLY.

NOTE: PROVIDE LINKED EYELETS WITH STUD. AT CONNECTION TO SLOPING STRUCTURE WITH PITCH OF 1 IN 12 OR GREATER. BENDING HANGER RODS IS NOT ALLOWED.

C1 HANGER ATTACHMENT DETAIL
SCALE: NOT TO SCALE



A1 EXHAUST FAN EF-1 DETAIL
SCALE: NOT TO SCALE



A2 FLOOR PLAN
SCALE: 1/4" = 1'-0"

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TITLE OF PROJECT: NIAGARA STREET PUMP STATION
LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY
TITLE OF DRAWING: HVAC CONTROLS BUILDING FLOOR PLAN

CONTRACT NUMBER: D215077
DATE: 4/24/26
DRAWING NUMBER: H-100

PW:/
CHECKED BY:
DRAFTED BY:
CHECKED BY:
DESIGNED BY:
DESIGN SUPERVISOR: ERIC KENNA, P.E.

PW-/

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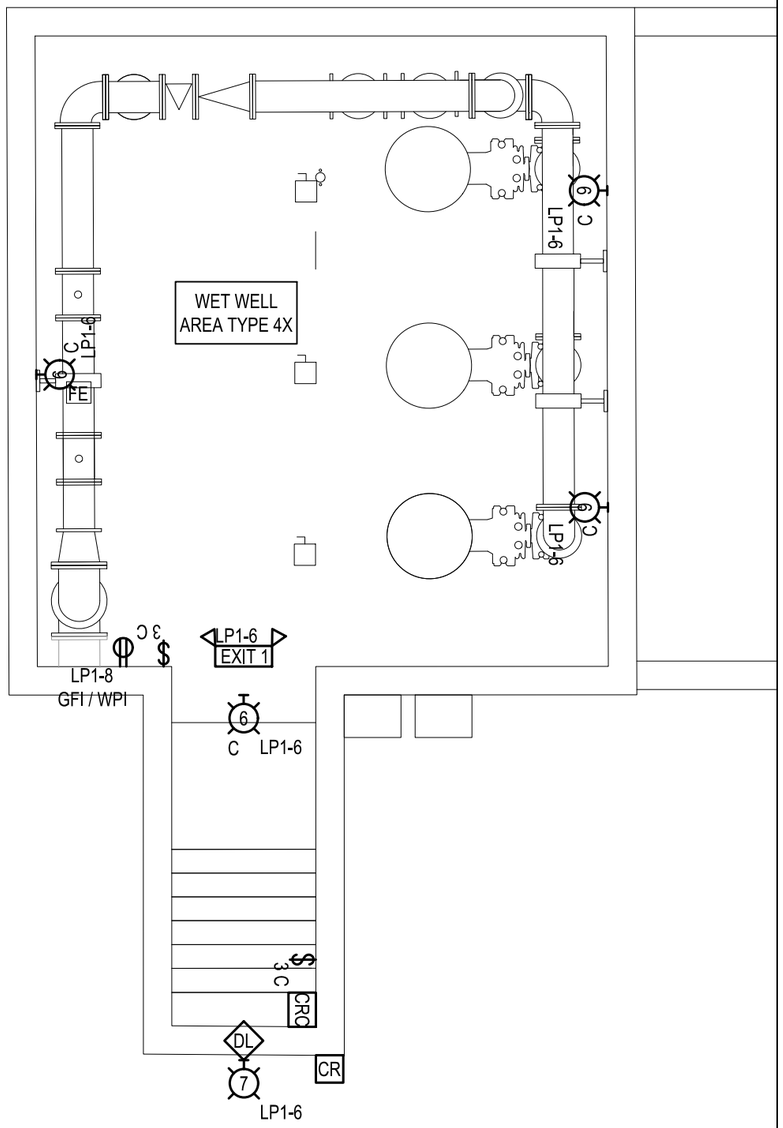
DESIGNED BY:

DESIGN SUPERVISOR: ERIC KENNA, PE.

PLAN NORTH



A1 WETWELL - LIGHTING PLAN

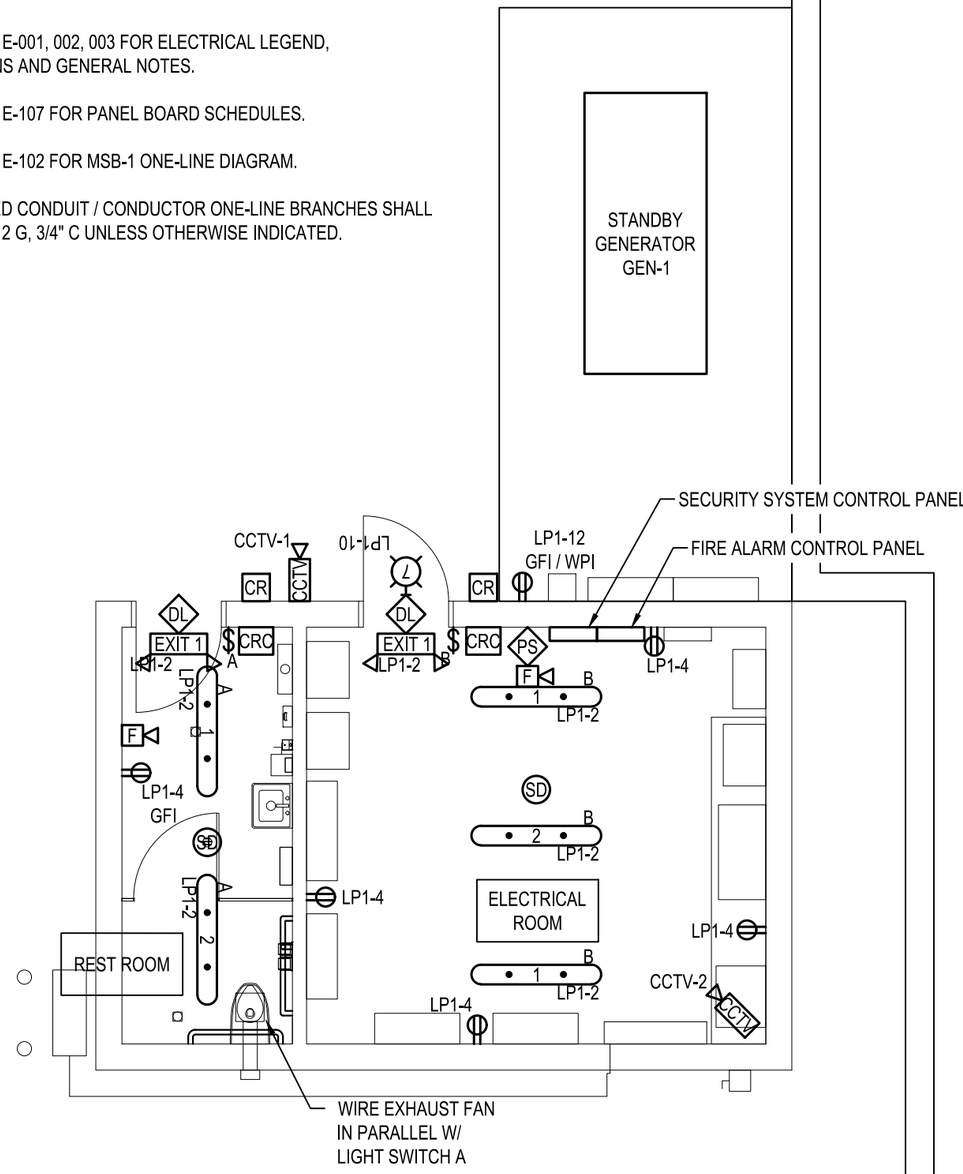
SCALE: 3/16" = 1'-0"

NOTES:

1. SEE DRAWING E-001, 002, 003 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. SEE DRAWING E-107 FOR PANEL BOARD SCHEDULES.
3. SEE DRAWING E-102 FOR MSB-1 ONE-LINE DIAGRAM.
4. ALL UNLABELED CONDUIT / CONDUCTOR ONE-LINE BRANCHES SHALL BE 2 EA #12, #12 G, 3/4" C UNLESS OTHERWISE INDICATED.

56 A3 / 66

PLAN NORTH



A2 CONTROLS BUILDING - LIGHTING PLAN

SCALE: 3/16" = 1'-0"

THIS SHEET SUPERSEDES SHEET 56 IN ITS ENTIRETY

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EMMA JO AVERSA
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TITLE OF PROJECT: NIAGARA STREET PUMP STATION

LOCATION OF PROJECT: 1776 NIAGARA STREET BUFFALO, NY

TITLE OF DRAWING: ELECTRICAL LIGHTING PLAN

CONTRACT NUMBER: D215077

DATE: 4/24/26

DRAWING NUMBER: E-106