




ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

May 25, 2023

To: Terrence D. McCracken, Secretary to the Authority

From: Michael J. Quinn, Senior Distribution Engineer 

Subject: Contract MP-084
Water System Improvements
Transmission Main Installation, Town of Tonawanda
ECWA Project No. 202000084

On February 13, 2020, the Authority executed an agreement with Arcadis of New York (Arcadis) for the design and construction of a new 48-inch diameter transmission main from the southernmost point on Brookside Terrace West in the City of Tonawanda, easterly to a point approximately 325 feet west of Military Road in the Town of Tonawanda, total approximate length of 4,250 linear feet. The new transmission main will parallel the existing 48-inch transmission main in that area, adding a redundant pipe to the distribution system.

The new transmission main will run within an established easement originally granted by Niagara Mohawk Power Corporation (NMPC) to the Authority in 1978. The easement includes provisions for future construction ("Schedule D") which necessitated an amendment. Amendment No.1 has been reviewed and approved by the Legal Department and accepted and executed by NMPC. Engineering Department requests a Board resolution to approve Amendment No. 1 to the Easement and for execution by the Chairman.

There is no compensation required for this amendment. Attached please find the following documents:

1. ECWA Authorization Form.
2. Amendment to Easement.

MJQ:jmf
Attachments
cc: L.Kowalski
CONT-MP-084-2001-X-10

ERIE COUNTY WATER AUTHORITY
AUTHORIZATION FORM
For Approval/Execution of Documents
(check which apply)

Contract: MP-084 **Project No.:** 202000084
Project Description: Water System Improvements, Transmission Main Installation
Town of Tonawanda

Item Description:



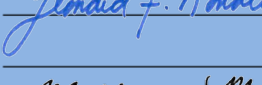


☐ Agreement ☐ Professional Service Contract ☒ Amendment ☐ Change Order
☐ BCD ☐ NYSDOT Agreement ☐ Contract Documents ☐ Addendum
☐ Recommendation for Award of Contract ☐ Recommendation to Reject Bids
☐ Request for Proposals
☐ Other _____

Action Requested:

☒ Board Authorization to Execute ☒ Legal Approval
☐ Board Authorization to Award ☒ Execution by the Chairman
☐ Board Authorization to Advertise for Bids ☐ Execution by the Secretary to the Authority
☐ Board Authorization to Solicit Request for Proposals
☐ Other _____

Approvals Needed:

APPROVED AS TO CONTENT:

<input checked="" type="checkbox"/> Sr Distribution Engineer		Date: <u>5/30/2023</u>
<input checked="" type="checkbox"/> Chief Operating Officer		Date: <u>5/30/2023</u>
<input checked="" type="checkbox"/> Executive Engineer		Date: <u>06/12/2023</u>
<input type="checkbox"/> Director of Administration		Date: _____
<input checked="" type="checkbox"/> Risk Manager		Date: <u>5/30/2023</u>
<input type="checkbox"/> Chief Financial Officer		Date: _____
<input checked="" type="checkbox"/> Legal		Date: <u>5/31/2023</u>

APPROVED FOR BOARD RESOLUTION:

<input checked="" type="checkbox"/> Secretary to the Authority		Date: <u>6/12/23</u>
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Remarks: Amendment to Easement (Niagara Mohawk Power Corporation).

Resolution Date: _____

Item No: _____

AMENDMENT TO EASEMENT

THIS AMENDMENT TO EASEMENT (this “Amendment”) is entered into this 25th day of May, 2023, by and between **NIAGARA MOHAWK POWER CORPORATION**, a New York Corporation, with a place of business at 144 Kensington Avenue, Buffalo, New York 14214 (“NMPC”), and the **ERIE COUNTY WATER AUTHORITY**, a municipal corporation with an address of 295 Main Street, Room 350, Buffalo, NY 14203 (“ECWA”).

WHEREAS; NMPC is the owner in fee of those certain parcels of real property located in the Town of Tonawanda and the Town of Amherst, in the County of Erie, State of New York and identified on the County of Erie Tax Maps as (SBL NO’s 52.49-3-12, 52.49-3-11.1, 52.12-6-20 and 52.12-6-4 (the “Real Property”): and

WHEREAS; NMPC and ECWA entered into that certain easement dated as of October 16, 1978, which encumber the Real Property (the “Easement”), a copy of which is attached hereto and made a part hereof as **Exhibit “A”**; and

WHEREAS; the Easement, in its Schedule “D” contemplated, ECWA adding an additional pipeline (the “Additional Pipeline”); and

WHEREAS; in order to add the Additional Pipeline, there are certain locations, requirement and conditions that must be adhered to by ECWA (collectively the “Conditions”), which Conditions are in addition to those set forth in the Easement; and

WHEREAS; NMPC and ECWA have agreed to amend the Easement, in writing, to include the aforementioned Conditions, as follows.

NOW THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration the amount and sufficiency of which is acknowledged hereby the parties hereto agree as follows:

1. The Easement is amended to include those certain plans and drawings, entitled “Erie County Water Authority Contract MP-084 Water Systems Improvements Transmission Main Installation Main Installation Town of Tonawanda, Erie County, New York, Drawing dated May 2022” (the “Site Plan”), which set forth those certain Conditions ECWA agrees to adhere to with regard to the installation of the Additional Pipeline, a copy of the Site Plan is attached hereto and made a part hereof as **Exhibit “B”**.

2. The Easement is amended to include those certain insurance requirements set forth in **Exhibit “C”** attached hereto, said requirements to be adhered to by ECWA and any party working at the direction of ECWA, including, without limitation, contractors, vendors and their employees hired by ECWA to perform the work contemplated in the Site Plan (collectively the “ECWA Parties”).

3. The Easement is further amended to include the following Conditions, which are to be adhered to by the ECWA Parties:

- a. All work pursuant to the installation of the Additional Pipeline that occurs in proximity to NMPC's overhead lines shall be performed by electrically qualified personnel experienced in transmission line work. If during the performance of such work there are multiple sites or multiple pieces of equipment being operated, an electrically qualified spotter shall be assigned to each site and piece of equipment as applicable. The spotters name and experience are to be submitted to NMPC and approved by NMPC's Transmission Line Services, at least 48-hours prior to such work beginning. Additionally, the heights of overhead lines in question are to be measured throughout the day, documented on the job brief and communicated to all workers.
- b. All equipment that will enter or be used to install the Additional Pipeline will be documented with the max height, reach and swing radius.
- c. Safeties and restraints shall be used on all equipment being used to install the Additional Pipeline so as not to allow the minimum approach distance to any overhead lines of NMPC facilities to be violated.
- d. Neither third party trucks nor third-party drivers will be permitted onto the Easement Area without a qualified escort.
- e. Staging of equipment and material by ECWA Parties shall not interfere with NMPC's day to day operations or the maintenance of NMPC facilities or the Real Property.
- f. All equipment used by ECWA Parties to install the Additional Pipeline must be grounded per OSHA standards. When crossing under any overhead line ECWA Parties are required to use existing crossings. All equipment must be properly stowed and in the down position before moving to a new location.
- g. ECWA Parties are required to obtain any and all environmental permits required to perform the work of installing the Additional Pipeline and, during the performance of such work, comply with all applicable environmental laws and regulations, deed restrictions, local ordinances and notification requirements.
- h. No ECWA party shall store, mix or load any petroleum products, pesticides, hazardous materials or chemicals labeled toxic on the Real Property and no refueling of vehicles or equipment will be allowed on the Real Property.
- i. ECWA Parties shall conduct all activities in a manner that will prevent the release of any oil or any other hazardous material into the environment. In the event of a release of oil or any other hazardous materials to the environment, the ECWA releasing such oil or other hazardous material shall be responsible for making all required notifications to regulatory agencies in the required time frame and to ensure that the release is properly responded to, including the cleanup and disposal of waste materials, in accordance with all regulatory requirements. Additionally, in the event

of a release of oil, Grantee shall notify NMPC's Environmental Department of any oil spills that occur on NMPC's property by calling (716) 479-5339.

- j. When Additional Pipeline is completed, ECWA will stabilize and properly restore all disturbed areas of the Real Property to a condition reasonably similar to its original condition.
- k. No excavation spoils, soil, construction debris or materials of any kind are to be removed from the Real Property without prior notification and approval from NMPC's Western Division Environmental Engineer, Lisa Montesano (716) 479-5339.
- l. Backfill on the Real Property shall include only excavated, on-site derived materials or clean, virgin materials from a commercial source. If visual or olfactory evidence of petroleum or chemical contamination is noted, contact NMPC's Western Division Environmental Engineer, Lisa Montesano (716) 479-5339.
- m. Upon the abandonment or discontinuance of use for any reason of the Additional Line or any water line located on the Real Property, NMPC shall retain the right to decide if the respective water line stays in place, is capped and filled, or is removed. Any removal or capping and filling of the Additional Line or any other water line shall be the responsibility of ECWA and at its sole cost and expense.


4. In the event of any inconsistency between the terms of the Amendment to Easement and the terms of this Easement, the terms of this Amendment to Easement shall control. Except to the extent expressly amended pursuant to this Amendment to Easement, the terms and provisions shall remain in full force and effect without modification. Any capitalized terms not specifically defined herein shall have the meaning provided for such capitalized term in the Easement.

5. Counterparts: This Amendment to Easement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Amendment to Easement.

NIAGARA MOHAWK POWER CORPORATION

By  James M. Zuccolotto
DocuSigned by:
758ED6B65D134D6...

Name: James M. Zuccolotto

Title: Authorized Representative

ERIE COUNTY WATER AUTHORITY

By _____

Name: _____

Title: _____

EXHIBIT "A"

Copy of Agreement RG #1845
Dated 10/16/1978

(NMPC ref: AR-1181-D)
(Appendix D to AR-1181)

CENTRAL FILE

THIS AGREEMENT, made this ^{October,} 16th day of ~~March~~, 1978,
between NIAGARA MOHAWK POWER CORPORATION, a corporation organized
and existing under the laws of the State of New York with its principal
office and place of business at 300 Erie Boulevard West, in the City of
Syracuse, County of Onondaga and State of New York 13202, (hereinafter
called "Grantor"), and

The ERIE COUNTY WATER AUTHORITY, a public benefit corporation
organized and existing under the laws of the State of New York, with its
principal office and place of business at 350 Ellicott Square Building, in the
City of Buffalo, County of Erie and State of New York 14203, (hereinafter
called "Grantee"),

WITNESSETH:

WHEREAS, by agreement dated ^{October 16,} ~~March~~, 1978 (hereinafter
called "The Agreement") Grantor granted to Grantee the right to construct
water pipe line facilities known as Van De Water Raw Pipe Line (Appendix A,
Contracts 23, 24, 25) and Van De Water to Ball Pipe Line (Appendixes B and
C, Contracts 25, 26, 27 and 30) on various properties of Grantor in the
Towns of Tonawanda and Amherst, Erie County, New York; and

WHEREAS, Grantor wishes to amend said easement agreement so
as to permit the future construction of a second pipe line on Grantor's
property which will, to the extent possible, follow the route of the above-
mentioned water pipe lines as more particularly described in this agreement,
(hereinafter referred to as "Appendix D").

RC#1245

CENTRAL FILE

2.

NOW, THEREFORE, subject to and upon the terms and conditions hereinafter set forth, and the terms of said agreement dated ~~March~~ ^{October 16,} 1978 except as modified herein, Grantor, insofar as it lawfully may and without covenant or warranty of any kind, does hereby grant and release unto Grantee a permanent center line easement and right of way to install, operate, reconstruct, maintain, repair, replace, relocate, renew and/or remove at some future date a water pipe line facility consisting of the size(s) of pipes and appurtenances as indicated on Grantor's drawings herein referred to and made a part of this Appendix D, all to be installed in accordance with the terms and conditions previously set forth under the Agreement, under Appendixes A, B and C, and additionally under this Appendix D, and to follow a route as indicated on the incorporated drawings, with said route in part made up of a net future occupancy of 27,400 lineal feet of Grantor's fee-owned lands by a 48-inch prestressed concrete water carrier pipe. This Appendix D is applicable only to Grantee's facilities (carrier pipe, casing pipe and appurtenances connected therewith) located on the Grantor's Huntley Generating Station properties and its premises between the Grantee's Jerome D. Van De Water Raw Water Pumping Station in the Town of Tonawanda and the R. F. Ball Pumping Station in the Town of Amherst, and includes rights only for those facilities clearly shown on the incorporated drawings hereinafter referred to. The consideration for the rights granted in accordance with this Appendix D is recited at paragraph "G" below.

DC#1845

CENTRAL FILE

3.

The following drawings, prepared by the Grantor, show the location of the center line easement granted herein:

FEE-OWNED LANDS
ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK
SECOND VAN DE WATER RAW WATER PIPE LINES

<u>Drawing No.</u>	<u>Sheet No.</u>	<u>Date</u>
18786	3	Revised 3/13/78
C-28520-W	3	" 3/13/78
C-28520-W	6	" 7/26/77
C-28520-W	7	" 7/26/77
C-28520-W	8	" 7/26/77
C-28520-W	9	" 7/26/77
C-28520-W	10	" 7/26/77
C-28520-W	11	" 7/26/77
C-28520-W	12	" 3/13/78
C-28520-W	17	" 7/26/77
C-28520-W	18	" 7/26/77
C-28520-W	19	" 12/13/77

EASEMENT/PERMIT LANDS
ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK
SECOND VAN DE WATER RAW WATER PIPE LINES

<u>Drawing No.</u>	<u>Sheet No.</u>	<u>Date</u>
C-29754-W-A	Huntley Station Lands	Revised 3/13/78
C-28520-W	3	" 3/13/78
C-28520-W	7	" 7/26/77
C-28520-W	8	" 7/26/77
C-28520-W	9	" 7/26/77
C-28520-W	10	" 7/26/77
C-28520-W	11	" 7/26/77
C-28520-W	12	" 3/13/78
C-28520-W	19	" 12/13/77

DC#1215

CENTRAL FILE

4.

The easement granted herein is subject to the following further terms and conditions:

A. The raw water carrier pipe(s) shall be prestressed concrete and shall include any specials, bevels and fittings which are deemed necessary for the design by Grantee. The raw water carrier pipe(s) shall additionally comply with the following requirements:

<u>DIAMETER</u>	<u>SPECIFICATION</u>	<u>CLASS</u>	<u>LENGTH</u>
48"	AWWA C-301	80 or SP-5	27,400'

The pipe and appurtenances shall be designed within the following stress requirements:

- (1) normal operating pressure of carrier pipe = 125 psig
- (2) hydrostatic test pressure = 133% of normal operating pressure (= 165 psig)
- (3) minimum relief of prestress = 140% of normal operating pressure (= 175 psig)
- (4) harnesses shall be designed to carry 125% of the operating pressure at working stress of harness material.

B. All engineering and construction specifications contained in this Appendix D to the agreement and Appendixes A, B and C shall be made part of Grantee's construction specifications and drawings. Said specifications and drawings shall be submitted to Grantor for review and acceptance at least 6 months prior to the commencement of any construction activities on Grantor's premises.

C. The Grantor hereby accords to the Grantee such rights of ingress and egress across and upon Grantor's lands to the extent that the same may be strictly necessary in order to effectuate the rights of the Agreement and this Appendix D, including such engineering survey work and soil investigation work as may be required for the design of Grantee's facilities. Permission to proceed on the construction of the second pipe line will be given only after the Grantor reviews and accepts the construction drawings and specifications which must be submitted to Grantor in accordance with Article B above. These drawings shall show the limits of Grantee's working areas which are necessary to perform construction operations and, in general, said working areas shall not exceed 40 feet in width and such lesser widths as Grantor shall specify where necessary to protect its facilities. Where temporary ingress and egress for construction purposes will not be contained within said work areas, said additional ingress and egress routes shall be designated on said construction drawings for Grantor's acceptance. Where field conditions require changes in any design considerations, including the routes of ingress and egress, Grantee shall request said changes in writing.

D. Grantor may require Grantee to erect appropriate fencing, barricades, berms and/or other protective measures as Grantor may deem necessary to restrict construction activities to designated work areas and/or otherwise protect Grantor's facilities.

E. Grantee shall furnish dated photographs by a professional photographer showing the condition of Grantor's property before and after the

CENTRAL FILE

6.

construction of Grantee's facilities. Said photographs will be forwarded to Grantor's Buffalo Area Operations Manager or Station Superintendent at Huntley Generating Station as specified in Article TWENTY-FIRST of the Agreement.

F. This appendix D is made expressly subject to rights previously granted by Grantor to various third parties and are as shown on Grantor's drawings incorporated herewith. Grantee shall not commence any work under this agreement until it has given notice to all indicated companies and received written permission from the same to commence work under this agreement.

G. The agreed consideration for the rights granted by this Appendix D is \$182,000.00, payable by the Grantee to the Grantor as follows:

1. \$18,200.00 paid to Grantor on the date of this agreement by Grantee, receipt of which is hereby acknowledged.
2. The balance of the consideration will be payable to Grantor in nine (9) equal installments of \$18,200.00, the first installment due and payable on or before December 31, 1978, and the remaining installments shall be due and payable on or before each December 31 thereafter until December 31, 1986.

Notwithstanding the above terms if Grantee shall elect to commence construction of said water pipe line on Grantor's premises prior to December 31, 1986, the balance of the above consideration shall be paid to Grantor before the commencement of such construction activity on Grantor's premises.

RG#1215

CENTRAL FILE

7.

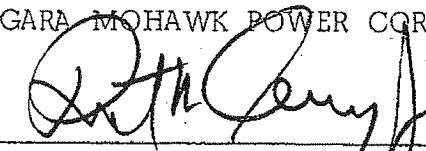
In addition, Grantee shall reimburse Grantor for any and all reasonable costs and expenses incurred by Grantor in connection with the rights herein granted. Included by specific reference, but not limited thereto, shall be the costs incurred by Grantor for its engineering review of the route selection, design, etc., and the field inspection of Grantee's installation, and all further such costs in either the initial installation or subsequent repair, replacement, maintenance, relocation and/or removal of Grantee's facilities. Grantee shall promptly reimburse Grantor for said expenses upon submission of invoices.

H. All other terms and conditions of the aforesaid agreement dated ~~March~~ ^{October 16,} 1978 and Appendixes A, B and C except and expressly modified herein are hereby confirmed.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their proper officers thereunto duly authorized and their respective corporate seals to be affixed hereunto all as of the day and year first above written.

NIAGARA MOHAWK POWER CORPORATION

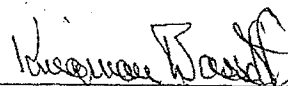
By



Vice President and General Manager
Western Division

ERIE COUNTY WATER AUTHORITY

By



Title:

Chairman

DC#1015

CENTRAL FILE

8.

STATE OF NEW YORK)
 : SS.:
COUNTY OF ERIE)

On th's *16th* day of *October*, 1978, before
me personally came ROBERT M. CLEARY, JR., to me known, who being
by me duly sworn, did depose and say that he resides at 165 Deer Run
in the Town of Amherst, County of Erie and State of New York; that he
is Vice President and General Manager-Western Division of NIAGARA
MOHAWK POWER CORPORATION, the company described in and which
executed the above instrument; that he knows the seal of said corporation;
that the seal affixed to said instrument is such corporate seal; that it was
so affixed by order of the Board of Directors of said Corporation and that
he signed his name thereto by like order.

Lucy F. Hufnagle

LUCY F. HUFFNAGLE
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 30, 1980

0011045

CENTRAL FILE

9.

STATE OF NEW YORK)

SS.:

COUNTY OF ERIE)

On this 3rd day of November, 1978, before me personally came Kirgman Bassett to me known, who being by me duly sworn did depose and say that he resides at 188 Sedgwick Pl, Buffalo, N.Y. that he is Chairman of ERIE COUNTY WATER AUTHORITY, the corporation described herein and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of said ERIE COUNTY WATER AUTHORITY, and that he signed his name thereto by like order.

Delphine M. Wojtan

DELPHINE M. WOJTAN
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 30, 19__

DR#1245

CENTRAL FILE

(NMP AR-1181)

THIS AGREEMENT, made this *16th* day of *October*, 1978, between NIAGARA MOHAWK POWER CORPORATION, a corporation organized and existing under the laws of the State of New York with its principal office and place of business at 300 Erie Boulevard West, in the City of Syracuse, County of Onondaga and State of New York 13202, (hereinafter called "Grantor"), and

The ERIE COUNTY WATER AUTHORITY, a public benefit corporation organized and existing under the laws of the State of New York, with its principal office and place of business at 350 Ellicott Square Building, in the City of Buffalo, County of Erie and State of New York 14203, (hereinafter called "Grantee"),

WITNESSETH:

Subject to and upon the terms and conditions hereinafter set forth, Grantor, insofar as it lawfully may and without covenant or warranty of any kind, expressed or implied, does hereby grant and release unto Grantee a permanent center line easement to install, operate, reconstruct, maintain, repair, replace, renew and/or remove the facilities which are described and specified in the Appendix(es) of this agreement, to be located on Grantor's premises at various locations in the Towns of Tonawanda and Amherst, County of Erie and State of New York, as shown on the drawings of the Grantor listed in the attached Appendix(es), which Appendix(es) and drawings are attached hereto and made a part hereof, together with such rights of ingress and egress over the Grantor's lands as are reasonably necessary in order to effectuate the principal rights granted hereunder.

Erie County

11/9/78

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As hereinafter used in this agreement "said premises" shall mean Grantor's fee-owned lands and easement/permit lands as indicated on the Appendix(es) drawings and "said facilities" shall mean the Grantee's water transmission mains, casings, air valve chambers, manholes and all other appurtenances connected therewith.

For those lands on which the Grantor now holds easement/permit rights, it shall be the responsibility of the Grantee to obtain the necessary land rights from the existing Owner to concurrently occupy this land with the Grantor (as used in this agreement "Owner" shall mean those third parties, their successors, or assigns, who own land on which Grantor possesses permit/easement rights granted previously to and separate from this agreement). The Grantee shall inform the Grantor of any requirements, terms and/or conditions which the Owner may impose on the Grantee if such imposition affects the existing rights and/or properties of the Grantor.

The selection of the route on Grantor's premises and all engineering considerations pertaining to route selection and design of said facilities are the sole responsibility of Grantee and any protective measures specified in this agreement and its Appendix(es) shall in no way limit this responsibility.

The following Appendixes shall be attached herewith and made a part of this agreement or will be executed separately as an addendum to this agreement as indicated:

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Appendix A - Includes the casing pipes, the first water carrier pipe, portions of a second water carrier pipe, and all associated appurtenances as to be constructed on Huntley Generating Station properties between the Grantee's Jerome D. Van DeWater Raw Water Pumping Station and the Jerome D. Van DeWater Water Treatment Plant (Grantee Contracts 23, 24 and 25).

Appendix B - Includes the casing pipes and the first water carrier pipe and all associated appurtenances as designed by Malcolm-Pirnie, Inc. for construction at various locations on the Grantor's electric transmission right-of-way between the Grantee's Jerome D. Van DeWater Water Treatment Plant in the Town of Tonawanda and the R. F. Ball Pumping Station in the Town of Amherst (Grantee Contracts 25, 26 and 27).

Appendix C - Includes the casing pipes, the first water carrier pipe and all associated appurtenances as designed by Nussbaumer and Clarke, Inc. for construction at various locations on the Grantor's transmission right-of-way between the Grantee's Jerome D. Van DeWater Water Treatment Plant and the R. F. Ball Pumping Station (Grantee Contracts 25A, 30A, 30B, 30C and 30D).

Appendix D - Includes a permanent centerline easement for future casing pipes, a future second water carrier pipe and all associated appurtenances for design at various locations on the Grantor's electric transmission right-of-way between the Grantee's Jerome D. Van DeWater Raw Water Pumping Station in the Town of Tonawanda and the R. F. Ball Pumping Station in the Town of Amherst. This Appendix to be executed as a separate addendum to this agreement.

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This easement is given upon the following conditions and covenants each and all of which the Grantee shall keep and perform.

FIRST: The rights herein granted together with covenants and obligations assumed by the Grantee shall be binding upon the Grantee, its successors and assigns. Such rights, covenants and obligations may be assigned by the Grantee, such assignment, however, shall not release the Grantee from its covenants and obligations herein set forth.

The easement herein granted shall terminate and be of no further force and effect at such time as the herein described facilities shall no longer be used for their originally designed purposes. Any property, facility or appurtenances thereto remaining on the premises at the termination of this easement shall become the property of the Grantor.

SECOND: The rights granted hereunder shall be subject and subordinate to rights as follows:

(a) The paramount right of the Grantor now and hereafter to occupy and use the whole or any part or parts of said premises for or in connection with its present or future operations, provided, however, that the exercise of such paramount right by Grantor shall not interfere with the rights conferred by this instrument and/or property of Grantee installed under this agreement, but provided, further, however, that none of the provisions of this paragraph (a) of Article SECOND shall be deemed in any way to limit the application of the provisions of

Articles THIRTEENTH and FOURTEENTH following.

CENTRAL FILE

(b) The exercise by any person, firm or corporation (other than by the Grantor) of any right, privilege or easement now subsisting in respect to said premises, as heretofore may have been granted or authorized by the Grantor or its predecessors; and

(c) The right of Grantor from time to time hereafter to grant to others or to authorize the occupancy or use by others of any portion or portions of said premises for any purpose or purposes whatsoever, provided, however, that any such future grant or authorization shall not interfere with the rights conferred by this authorization and/or property of Grantee installed at the time of such grant or authorization.

THIRD: Grantee shall give Grantor at least seven (7) days' written notice before performing any field work authorized under this agreement. Grantor at its election may have an inspector present at the time or times such work is being executed; and such inspector shall have the right and authority to require the modification or cessation of any or all work hereunder when, in his sole judgement, such work is contrary to the provisions of this agreement or is or may become a source of danger to the properties of the Grantor. In the event of inspection, Grantee shall promptly pay Grantor the reasonable cost and expense of each such inspection upon proper billing to Grantee by Grantor. The presence or absence of Grantor's inspector shall not constitute a waiver of any provision of this agreement.

In case of an emergency, Grantee may proceed to make immediate repairs upon verbal or telephone notice to Grantor of the situation, which said notice shall be followed within three (3) days thereof by a confirming letter from Grantee.

In the event of replacements or renewals of said facilities or sections thereof, if Grantee shall desire to use an alternate location for the section(s) to be replaced or renewed in order to maintain continuous operations, it shall first submit adequate plans reasonably in advance for the Grantor's prior approval, which approval shall not be unreasonably withheld. Such approval shall not excuse Grantee from giving the seven (7) days' written notice provided in the first paragraph of Article THIRD.

FOURTH: All work done by Grantee on said premises shall be executed by labor in harmony with the trades.

FIFTH: Grantee's employees and its contractors shall comply with the reasonable directions of authorized employees of the Grantor, while construction is in progress upon said premises. Grantee shall issue appropriate instructions to its employees and contractors to implement the foregoing requirement and undertakes that it will at all times cooperate with Grantor to secure compliance therewith.

SIXTH: All equipment engaged in work in the vicinity of overhead or underground electric transmission lines shall at all times be grounded in a manner that shall provide safeguards and protection to persons and property (refer to Appendix A for detailed grounding requirements). Grantor's electrical plant, equipment and structures adjacent to any work shall be kept clear of all debris and equipment at all times. All field construction work authorized by this agreement shall be accomplished without the aid of cranes, backhoes, mechanical diggers or equipment having extensions whose highest point reaches (or

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which is potentially capable of reaching) within fifteen (15) feet of Grantor's lowest electric conductor. At all times, equipment not engaged in the performance of the work shall be moved to the extreme edge of said premises, or as directed by the Inspector, and shall be made INOPERABLE. Extreme caution shall be exercised in the movement of construction equipment and personnel under and around existing energized lines and structures in the immediate work area. On all matters dealing with work in the vicinity of energized or unenergized lines, the Grantee shall be fully subject to the instruction of the Grantor.

SEVENTH: Any and all damage to Grantor's properties or structures, as such exist now or as such may exist in the future, resulting from, caused by or attributed to the construction, maintenance, operation, repair, relocation and/or removal of Grantee's said facilities shall be repaired and/or replaced by the Grantor at the sole cost and expense of the Grantee. All earth or soil disturbed by the work shall be properly replaced and the ground surface restored to its former condition (when applicable, it will also be reseeded) by the Grantee at its sole cost and expense. Grantor's security fencing now in place can be removed or relocated by Grantee if it is replaced and restored to its original location after construction, provided, however, that during construction a temporary enclosure is erected by Grantee sufficient in all respects to assure the continued security and protection of Grantor's properties. The Grantor will replace any of its survey monuments which are disturbed by the work and invoice the Grantee for the reasonable cost of the labor and materials expended to do so.

EIGHTH: Grantee shall install, maintain and provide adequate drainage conveyances and/or structures so that there will not be a collecting or pooling of run-off waters or surface waters upon the premises of Grantor resulting from the installation, construction, maintenance and operation of said facilities.

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NINTH: Said facilities shall be of at least the standard construction as so recognized by the industry, and when requirements greater than what is established by said standard are deemed proper for the safeguard of the Grantor's properties such additional considerations will be used on the request of Grantor; and Grantee at all times after construction of said facilities shall maintain the same in good repair and safe condition. In all cases of underground facilities, suitable permanent markers extending a minimum of three (3) feet above ground shall be installed by Grantee at the points of entrance and exit of said facilities onto Grantor's premises as well as at such other locations and intervals as deemed necessary by Grantor.

TENTH: Grantee shall so construct and shall thereafter maintain, operate, repair, relocate and/or remove said facilities so as not to injure or damage the lands of Grantor or injure, damage or interfere with its electric transmission or distribution lines or other properties, including, but not by way of limitation, injury, damage or interference, resulting from loss of metal from Grantor's or Grantee's properties due to corrosion or electrolysis caused or hastened by the presence of Grantee's facilities and appurtenances thereto on Grantor's said premises or on lands adjacent thereto and within a critical distance therefrom. Without thereby limiting the foregoing obligation and liability, Grantee shall install and maintain cathodic protection devices as deemed necessary from field studies; all subject to prior approval of Grantor and shall keep accurate records of each cathodic protection device and shall furnish Grantor with a copy of such records.

In addition to its rights at law or in equity under the foregoing provisions of this subdivision, Grantor may require Grantee at Grantee's sole cost and expense at any time and from time to time to take such further protective measures as Grantor may require.

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ELEVENTH: Any blasting which may be required for the construction of Grantee's facilities shall be permitted only with notification to, and written consent of the Grantor. Whenever blasting is required, the Grantee shall provide prior written requests to the Grantor indicating the location and number of charges set, the explosive type and quantity installed and other pertinent data. Explosives for blasting shall be stored, handled, and used in accordance with the laws and regulations of the State of New York and all local regulations. Blasting shall be conducted so as not to endanger persons or property; and unless otherwise permitted shall be covered or satisfactorily confined. The Grantee shall be responsible for and held liable for any damage of whatever nature caused by blasting or accidental explosion. The Grantee's attention is directed to power transmission towers in the vicinity of the proposed work. Ample photographs shall be taken by the Grantee at its expense before any blasting is allowed to proceed. Any damage caused by the Grantee's blasting operations shall be repaired at the Grantee's expense.

Where the edge of an excavated trench is within fifteen (15) feet of the Grantor's electric structures or other properties, blasting will not be permitted. All rock which is not permitted to be blasted shall be removed by pneumatic hammers or other approved means.

TWELFTH: In the event that Grantor, in connection with the future use of its premises, decides to proceed by blasting or by the use of other explosives, it will notify Grantee of such purpose; and if Grantee requests Grantor not to proceed by such means, Grantor will refrain from doing so and Grantee shall reimburse Grantor for any increase in cost resulting in compliance with Grantee's request; otherwise Grantor shall not be liable for any damage to facilities of Grantee but Grantee shall bear the entire damages resulting therefrom.

THIRTEENTH: In the event that Grantor's future needs for electrical power transmission should require relocation or removal of said facilities installed under the terms of this agreement, the Grantor agrees to prepare for the Grantee a set of specifications for new construction which would permit said facilities to remain as then located, together with an estimate of the cost of such construction. The Grantor will also provide to the Grantee specifications showing the standard type of proposed construction which would occur if said facilities were not located on Grantor's transmission right of way. The Grantee, at its election, may then choose to relocate its facilities or may choose to pay to the Grantor the additional expense necessitated by the special construction required due to the presence of said facilities.

FOURTEENTH: Because the exercise of rights under this easement involves grave additional risk to the Grantor on account of its use of said right of way for the distribution and transmission of electricity, Grantee does hereby;

(a) Release and waive any and all right to ask for or demand damages from Grantor for any loss, costs or expense Grantee may sustain as a result of damage to or destruction of said facilities unless the same be attributable solely to the fault, failure, negligence or improper conduct of Grantor.

(b) Assume all risk of, and agree to indemnify Grantor and to save it harmless from all loss, damage or injury to property or persons (including bodily injuries resulting in death) arising out of, caused by or in any way connected with the construction, maintenance, operation, relocation, repair and/or removal of said facilities and of any and from all detriment, damage, loss, claim, demands, sums and expenses connected with such loss, damage or injury whether the same result to or be sustained by (i)

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officers, contractors, agents or employees of Grantee or of Grantor or (ii) any other persons, firms or corporations, unless the same be attributable solely to the fault, failure, negligence of Grantor.

(c) Agree to furnish to Grantor evidence that a public liability insurance policy including contractual liability, completed operations for a period of not less than two (2) years after the acceptance of work and no exclusion of damage to underground utilities with minimum limits of \$1,000,000 for bodily injury and \$3,000,000 for property damage, and not subject to cancellation or material change without ten (10) days prior written notice to Grantor has been issued to Grantee, which policy shall be specially endorsed to cover Grantee's contractual liability to Grantor under the provisions of paragraph (b) above. In the event that Grantee have in force a public liability insurance policy in the above limits, Grantee shall obtain a certificate naming Grantor as an insured party.

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(d) Prior to exercising any rights hereunder, Grantee shall send a certificate for said insurance policies to Niagara Mohawk Power Corporation, System/^{Risk}Management Department, 300 Erie Boulevard West, Syracuse, New York 13202.

FIFTEENTH: This grant of rights is given and accepted subject to any and all outstanding leases, tenancies, easements, licenses or other tenures and/or claims of title affecting said premises or any portion or portions thereof; and subject also to any and all mortgages, encumbrances, liens, conditions, restrictions and/or reservations subject to or under which the Grantor holds the same.

SIXTEENTH: This agreement is given and accepted subject to, and this grant of rights to Grantee is subordinate to, any mortgages or deeds of trust which now exist or which hereafter may become a lien upon the said premises, provided, however, Grantor, upon request from Grantee, shall cooperate with Grantee to procure from the Trustees of such Mortgage Indenture such releases or non-disturbance agreements as Grantee may from time to time request.

SEVENTEENTH: Grantee shall promptly reimburse Grantor for any costs and expenses to which Grantor shall be put in changing, modifying or relocating its properties in order to accommodate the construction, maintenance, operation, repair, relocation and/or removal of said facilities upon submission to Grantee of proper bills therefor.

EIGHTEENTH: Grantee shall at its own cost comply with all applicable laws, ordinances, orders, rules and regulations of the United States, of the State of New York, of any departments, bureaus, authorities or commissions created under the laws of either government and of the municipalities in which said premises are situated insofar as the same relate to the exercise of any privilege or the performance of any duty under this agreement and whether the same are obligatory upon

NINETEENTH: In case Grantee shall fail or neglect to perform or comply with any term or provision of this agreement on its part to be performed, Grantor may give written notice to Grantee thereof, specifying the nature of such failure or neglect; and if such failure or neglect continues after the expiration of thirty (30) days after the giving of such notice or, if it is of such nature that it cannot be cured within thirty (30) days and Grantee has not commenced action satisfactory to Grantor to cure such failure or neglect within such period, this agreement shall become null and void and all rights of Grantee hereunder shall forever cease and determine and be in all respects forfeited. Thereafter, Grantor may require Grantee to remove said facilities from said premises, and if Grantee fails so to do within sixty (60) days after the mailing of such notice, Grantor may effect such removal, demand and collect the cost thereof from Grantee, without liability on account of or with respect to said facilities or the salvage value thereof. It is understood that failure of Grantor at any time or from time to time to declare a forfeiture hereunder shall not constitute a waiver of its rights so to do for any future breach.

Rights of forfeiture under the provisions of this Article NINETEENTH shall be in addition to any and all rights at law or in equity which Grantor expressly retains and may from time to time exercise and enforce whether or not a forfeiture is invoked.

TWENTIETH: The location of all utilities, both overhead and underground, shown on the attached drawings of the Grantor, and the drawings of the Grantee which are listed in the Appendix(es) and made a part of this agreement are approximate locations only and the Grantee shall be responsible for confirming the exact location of said utilities by field observation and investigation.

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TWENTY-FIRST: Any notice authorized to be given hereunder shall be deemed to be duly served when served personally on an officer of one of the parties or when deposited in any mail box under the control of the United States addressed to the Grantee at the address set forth at the head of this instrument or to either Grantor's Buffalo Area Operations Manager, 93 Dewey Avenue, Buffalo, New York 14214 for the purposes of Appendixes B, C and D or Grantor's Station Superintendent, Huntley Generating Station, 716 River Road, Buffalo, N.Y. 14207 for the purposes of Appendix A and D and the third day following the day of mailing shall be deemed the date of service.

TWENTY-SECOND: This agreement or any rights in or under it and the terms and conditions thereof shall be binding upon and inure to the benefit of the successors and assigns of Grantor and Grantee provided, however, that regardless of any assignment made by Grantee, Grantee shall remain principally obligated to Grantor under this agreement.

TWENTY-THIRD: Grantee shall bear, pay and discharge all taxes, assessments and public charges, ordinary and extraordinary, levied, assessed or accruing upon Grantor's lands solely because of said facilities, except for those usual and ordinary charges which arise by reason of the inclusion of the premises described herein within the boundaries of Grantee's service district as said district may now or hereafter be constituted. Every such tax, assessment and public charge shall be paid, discharged or cancelled not more than sixty (60) days after the same shall become a lien, and if Grantee shall fail to pay, discharge or cancel any such tax, assessment or public charge within sixty (60) days after the same shall become a lien, Grantor may at its option pay and satisfy the same and any amount so paid, together with all penalties in connection therewith, together with interest from the date of payment, shall be repaid to Grantor upon sixty (60) days' demand.

TWENTY-FOURTH: (1) If (a) Grantee should be adjudged a bankrupt, or a Plan of Composition should be filed by it, whether upon allegation of insolvency or otherwise; or (b) if Grantee shall fail to make the payments provided for in Article TWENTY-SIXTH within thirty (30) days after the same becomes due and payable; or (c) if it fails to make any payment arising under or stemming from any other Article of this agreement within thirty (30) days after mailing to the Grantee of a written demand for payment; or (d) if Grantee shall fail, neglect or be unable to perform or comply with any other term or provision of this agreement on its part to be performed within thirty (30) days after the mailing to it of a written request for performance or compliance; then and in any such event or events, this agreement shall become null and void in its entirety and all rights of Grantee thereunder shall forever cease and determine, except that Grantor may enforce against Grantee any obligations of Grantee theretofore existing or incurred. Thereafter, Grantor may require Grantee to remove said facilities from said premises and, if Grantee shall fail so to do within sixty (60) days after the mailing of said notice, Grantor may effect such removal and demand and collect the cost thereof from Grantee without liability on account of and with respect to said facilities or the salvage value thereof. It is understood that failure of Grantor at any time or from time to time to declare a forfeiture hereunder shall not constitute a waiver of its right so to do for any future breach.

(2) Rights of forfeiture under the provisions of this Article TWENTY-FOURTH shall be in addition to any and all rights at law or in equity which Grantor may have hereunder, all of which Grantor expressly retains and may from time to time exercise and impose whether or not a forfeiture is invoked.

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TWENTY-FIFTH: On the date of this agreement, Grantee has paid Grantor the sum of Two Hundred One Thousand, Five Hundred dollars (\$201,500.00), receipt whereof is hereby acknowledged by Grantor as the full consideration for the easement rights herein granted to Grantee to occupy Grantor's fee-owned premises more particularly described in Appendices A, B and C.

As further and separate payment, Grantee shall reimburse Grantor for any and all reasonable costs and expenses incurred by Grantor in connection with the installation herein authorized, including, but not limited to, all costs incurred by the Grantor for its Engineering review of the route selection, design, etc., and the field inspection of the installation, whether such installation be the initial installation or subsequent repair, replacement, relocation and/or removal. Estimates for said costs and expenses are contained in appendices.

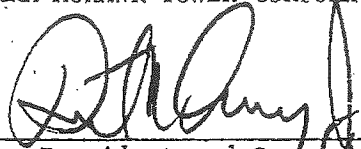
TWENTY-SIXTH: No provision of this grant shall be deemed to have been waived by the Grantor unless such waiver be in writing signed by the Grantor. This grant contains the entire agreement between the parties and any executory agreement hereafter made shall be ineffective to change, modify or discharge it in whole or in part unless such executory agreement is in writing and signed by the Grantor.

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IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their proper officers thereunto duly authorized and their respective corporate seals to be affixed hereunto all as of the day and year first above written.


NIAGARA MOHAWK POWER CORPORATION

BY 
Vice President and General Manager
Western Division

MCC

ERIE COUNTY WATER AUTHORITY

BY


Chairman

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18.

STATE OF NEW YORK)
 : ss.:
COUNTY OF ERIE)

On this *16th* day of *October*, 1978, before me personally came ROBERT M. CLEARY, JR., to me known, who, being by me duly sworn, did depose and say that he resides at 165 Deer Run in the Town of Amherst, County of Erie and State of New York; that he is Vice President and General Manager-Western Division of NIAGARA MOHAWK POWER CORPORATION, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

Lucy F. Hufnagle

LUCY F. HUFFNAGLE
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 30, 19 80

STATE OF NEW YORK)
 :
COUNTY OF ERIE)

ss.:

On this 3rd day of November, 1978, before me personally came Kingman Bassett, to me known, who being by me duly sworn did depose and say that he resides at 188 Soldiers Pl. Buffalo, N.Y.; that he is Chairman of the ERIE COUNTY WATER AUTHORITY, the corporation described herein and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of said ERIE COUNTY WATER AUTHORITY, and that he signed his name thereto be like order.

Delphine M. Wojtan

DELPHINE M. WOJTAN
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 30, 1980

EXHIBIT "B"

Arcadis Site Plans

C-01 thru C-15

May 2022

Erie County Water Authority

Contract MP-084

ERIE COUNTY WATER AUTHORITY
CONTRACT MP-084
WATER SYSTEM IMPROVEMENTS
TRANSMISSION MAIN INSTALLATION
TOWN OF TONAWANDA

ERIE COUNTY-NEW YORK

PROJECT NO. 202000084
MAY 2022

SHEET INDEX

-	COVER SHEET
C-01	GENERAL NOTES AND LEGEND
C-02	EROSION AND SEDIMENT CONTROL, PIPELINE CROSSING PROTECTION AREAS, CONTRACTOR STAGING AREAS AND CONSTRUCTION ENTRANCES
C-03	PLAN AND PROFILE STA. 0+00 - STA. 10+25
C-04	PLAN AND PROFILE STA. 10+25 - STA. 20+75
C-05	PLAN AND PROFILE STA. 20+75 - STA. 31+25
C-06	PLAN AND PROFILE STA. 31+25 - STA. 40+98
C-07	INTERCONNECTION NO. 1 DETAIL
C-08	INTERCONNECTION NO. 2 AND CONCRETE VALVE CHAMBER DETAILS AND PARTIAL PLAN
C-09	COMBINATION AIR RELEASE VALVE WITH CONCRETE CHAMBER DETAILS
C-10	MISCELLANEOUS DETAILS I
C-11	MISCELLANEOUS DETAILS II
C-12	MISCELLANEOUS DETAILS III
C-13	EROSION AND SEDIMENT CONTROL DETAILS I
C-14	EROSION AND SEDIMENT CONTROL DETAILS II
C-15	MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS



BOARD OF COMMISSIONERS

JEROME D. SCHAD
PEGGY A. LAGREE
MICHELE M. IANNELLO

CHAIR
VICE CHAIR
TREASURER



APPROVED: _____

ARCADIS OF NEW YORK, INC.
DANIEL J. SEIDER, P.E.



APPROVED: _____

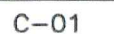
Leonard F. Kowalski
ERIE COUNTY WATER AUTHORITY
LEONARD F. KOWALSKI, P.E.
EXECUTIVE ENGINEER

1. ALL ELEVATIONS REFER TO USGS NAVD 88 DATUM.
2. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND FURNISH COPIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR WORK AREA SHALL BE CONFINED TO THE LIMITS OF THE RIGHT-OF-WAYS AND EASEMENTS. THE CONTRACTOR SHALL OBTAIN ANY ADDITIONAL EASEMENTS OR WORK RELEASES SHOULD THE CONTRACTOR REQUIRE ADDITIONAL AREA TO ACCOMMODATE HIS OPERATIONS.
4. THE CONTRACTOR SHALL PROVIDE MAINTENANCE AND PROTECTION OF TRAFFIC IN ACCORDANCE WITH THE ERIE COUNTY HIGHWAY DEPARTMENT STANDARDS AND THE NYSDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. THE LOCATIONS AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLANS AND PROFILES ARE APPROXIMATE. OTHER UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE CONTRACTOR SHALL CALL DIG SAFELY NEW YORK AT 1-800-952-7962 BEFORE DIGGING, OR DRILLING. THE CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY THE LOCATION AND ELEVATION OF UTILITIES AT INTERCONNECTIONS AND CROSSINGS AS SHOWN, DIRECTED OR REQUIRED. THE CONTRACTOR SHALL EXCAVATE IN ADVANCE OF THE PIPE LAYING OPERATION AND EXPOSE ALL EXISTING UNDERGROUND UTILITIES TO PREVENT DAMAGE DURING CONSTRUCTION AND TO DETERMINE REQUIRED CHANGES IN GRADE NECESSARY TO INSTALL WATERMAIN TO AVOID CONFLICTS.
6. THE CONTRACTOR SHALL INSTALL THOSE MEASURES REQUIRED TO LIMIT EROSION OF AREAS DISTURBED BY THE WORK. CLEARING SHALL BE PERFORMED ON AN AS NEEDED BASIS, PHASED TO REDUCE EROSION AND VISUAL IMPACT.
7. BLASTING WILL NOT BE PERMITTED.
8. NO MORE THAN ONE CONNECTION MAY BE MADE TO ANY EXISTING WATERMAIN PRIOR TO TESTING, DISINFECTION, AND APPROVAL OF THE WATERLINE INSTALLATION COMPLETED WORKS APPROVAL REPORT(S) BY THE ERIE COUNTY WATER AUTHORITY AND THE ERIE COUNTY HEALTH DEPARTMENT.
9. THE ERIE COUNTY WATER AUTHORITY ONLY SHALL OPERATE EXISTING VALVES AND FIRE HYDRANTS, INCLUDING NEWLY INSTALLED VALVES AND FIRE HYDRANTS THAT HAVE BEEN PLACED INTO SERVICE. THE CONTRACTOR IS ADVISED THAT WATERTIGHT CONDITIONS MAY NOT EXIST WHEN EXISTING VALVES ARE CLOSED.
10. THE CONTRACTOR SHALL HAVE ALL EQUIPMENT, MANPOWER, AND MATERIALS REQUIRED ON SITE AND READY FOR USE PRIOR TO COMMENCING ANY SHUT-DOWN OR REMOVING ANY EXISTING FACILITIES FROM SERVICE. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED CUSTOMERS OF ANY SHUT-DOWN AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE FIRE STATIONS 48 HOURS IN ADVANCE PRIOR TO TAKING ANY FIRE HYDRANTS OUT OF SERVICE. ANY FIRE HYDRANTS NOT IN SERVICE SHALL BE BAGGED IN BURLAP OR PLASTIC. ANY SHUT-DOWN SHALL BE LIMITED TO 4 CONSECUTIVE HOURS. IT MAY BE NECESSARY TO SCHEDULE SHUT-DOWNS AT NIGHT, WEEKENDS, OR OTHER OFF HOURS SO AS TO NOT AFFECT SCHOOLS, BUSINESSES OR OTHER CUSTOMERS, AS DETERMINED BY THE ENGINEER. SHUT-DOWN REQUESTS SHALL BE SUBMITTED TO THE ERIE COUNTY WATER AUTHORITY A MINIMUM OF 5 BUSINESS DAYS IN ADVANCE OF THE REQUESTED SHUT-DOWN DATE.
11. ALL WATERMAIN PIPING SHALL BE INSTALLED WITH A MINIMUM OF 4'-6" OF COVER.
12. ALL WATERMAIN PIPING SHALL BE INSTALLED WITH A MINIMUM OF 1'-6" OF VERTICAL CLEARANCE AND 10'-0" OF HORIZONTAL CLEARANCE FROM SANITARY AND STORM PIPING, MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING.
13. IF THE MATERIAL AT THE DESIGN GRADE IS UNSUITABLE AS DETERMINED BY THE ENGINEER, THE CONTRACTOR, WHEN ORDERED IN WRITING, SHALL EXCAVATE ADDITIONAL MATERIAL TO THE DEPTH NECESSARY AND SHALL BACKFILL TO THE PROPOSED GRADE WITH THE SELECT GRANULAR MATERIAL.
14. THE INSTALLATION OF THE 90 DEGREE BENDS IN THE WATERMAIN IS NOT ALLOWED, UNLESS APPROVED BY THE ERIE COUNTY WATER AUTHORITY.
15. THRUST RESTRAINT FOR ALL WATERMAIN PIPING SHALL CONSIST OF PIPE JOINT RESTRAINTS.
16. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY UTILITY POLE IN ADVANCE OF ANY EXCAVATION WORK THAT WILL TAKE PLACE WITHIN 5'-0" OF THE UTILITY POLE. THE CONTRACTOR SHALL INCLUDE THE COST OF TEMPORARY POLE SUPPORT IN THE APPROPRIATE BID ITEM WHERE UTILITY POLES ARE REQUIRED TO BE SUPPORTED DURING CONSTRUCTION. THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY.
17. IF MATERIALS ARE ENCOUNTERED DURING THE CONSTRUCTION THAT ARE SUSPECTED OF BEING CONTAMINATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE NYSDEC FOR DIRECTION REGARDING TESTING, SEPARATION, CONTAINMENT AND DISPOSAL PROCEDURES.
18. EXISTING FIRE HYDRANTS REMOVED DURING CONSTRUCTION AND NOT REINSTALLED AS PART OF THE WORK SHALL BE RETURNED TO THE ERIE COUNTY WATER AUTHORITY SERVICE CENTER, 3030 UNION ROAD, CHEEKTOWAGA.
19. THE CONTRACTOR SHALL COLD PATCH ALL TRENCH EXCAVATIONS IN TRAVELED AREAS INCLUDING ROADS, DRIVEWAYS, SIDEWALKS, AND PARKING AREAS.
20. THE CONTRACTOR SHALL NOT RESTRICT SCHOOL BUS ACCESS.
21. THE USE OF EXISTING FIRE HYDRANTS FOR ANY REASON IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ERIE COUNTY WATER AUTHORITY. THIS INCLUDES NEWLY INSTALLED FIRE HYDRANTS THAT HAVE BEEN PLACED INTO SERVICE.
22. THE CONTRACTOR SHALL SUBMIT PROCEDURES FOR TESTING AND DISINFECTION OF THE WATERMAIN TO THE ENGINEER FOR APPROVAL.
23. THE CONTRACTOR SHALL BE PRESENT AND ASSIST IN THE FINAL WALK INSPECTION. THE CONTRACTOR SHALL PROVIDE SUFFICIENT PERSONNEL AND EQUIPMENT TO DEMONSTRATE TO THE ENGINEER THAT ALL VALVES, FIRE HYDRANTS AND CURB STOPS OPERATE AS REQUIRED.
24. THE CONTRACTOR SHALL PROTECT EXISTING 48" PCPP WATER LINE FROM DAMAGE DUE TO EXCAVATION, VIBRATORY COMPACTION, HAUL VEHICLE LOADING, AND STOCKPILED MATERIALS. CONTRACTOR TO DESIGN CONSTRUCTION OPERATIONS TO PROTECT EXISTING 48" PCPP WATER LINE DURING CONSTRUCTION. PROVIDE CALCULATIONS PREPARED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK WHICH DEMONSTRATE THAT THE PROPOSED PROTECTION IN THE PROPOSED AREA IS A FACTOR OF SAFETY ACCEPTABLE TO THE OWNER AND ENGINEER. REFER TO SPECIFICATION SECTION 01585 FOR ALL REQUIREMENTS.
25. POLYETHYLENE WRAP IS TO BE PLACED AROUND ALL PCPP AND DUCTILE IRON PIPE AND FITTINGS. ALL PCPP PIPE TO HAVE ONE LAYER (SINGLE) AND ALL DUCTILE IRON PIPE AND FITTINGS TO HAVE TWO LAYERS (DOUBLE) OF POLYETHYLENE WRAP. REFER TO C-11 FOR DETAILS.
26. CONTRACTOR SHALL NOT STORE MORE THAN 1300 GALLONS OF OIL ON-SITE.
27. CONTRACTOR SHALL AT ALL TIMES WHILE WORKING WITHIN THE NATIONAL GRID RIGHT-OF-WAY ADHERE TO THE REQUIREMENTS OF OSHA 1926.1408 - POWER LINE SAFETY (UP TO 350KV) EQUIPMENT OPERATIONS.

1. COORDINATES AND BEARINGS SHOWN HEREON ARE REFERENCED TO THE NAD83 NEW YORK STATE PLANES, WEST ZONE, US FOOT (NY83-WF)
2. THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON PHYSICAL EVIDENCE LOCATED DURING THE FIELD SURVEY AND EXISTING UTILITY DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT OR CERTIFY THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL DIG SAFELY NEW YORK AT 1-800-962-7962 BEFORE DIGGING, OR DRILLING.
3. TOPOGRAPHIC AND PLANIMETRIC INFORMATION SHOWN HEREON WAS PLOTTED FROM A FIELD SURVEY PERFORMED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, MAY 26, 2020, AND REVISED ON SEPTEMBER 2, 2020.
4. NO BOUNDARY SURVEY WAS PERFORMED.

Point	Northing	Easting	Elevation	Description
1	1092545.5770	1064075.5190	603.32	CB/RC

BC		BOTTOM OF CURB
CLF		CHAIN LINK OR STOCKADE FENCE
		CHECK DAM
		CENTERLINE
		COMPOST FILTER SOCK (12-INCH)
		CONTOURS
CP		CONTROL POINT
		DOUBLE SIGN
DI		DRAINAGE INLET
DIA.		DIAMETER
DIP		DUCTILE IRON PIPE
EP		EDGE OF PAVEMENT
FLG		FLANGE
FT.		FEET
		GAS LINE
GLM		GAS LINE MARKER
GM		GAS METER
HDPE		HIGH DENSITY POLYETHYLENE
HORIZ.		HORIZONTAL
HYD		HYDRANT
I.D.		INSIDE DIAMETER
INV		INVERT ELEVATION
		LIMITS OF DISTURBANCE
MAX.		MAXIMUM
M.J.		MECHANICAL JOINT
MIN.		MINIMUM
NPT		NATIONAL PIPE THREAD
NO.		NUMBER
		NEW WATERLINE MARKER POST
O.D.		OUTSIDE DIAMETER
		OVERHEAD WIRES
		PAVED AREA
PCCP		PRESTRESSED CONCRETE CYLINDER PIPE
PSI		POUNDS PER SQUARE INCH
PVC		POLYVINYL CHLORIDE
PCCP		PRESTRESSED CONCRETE CYLINDER PIPE
		PROPERTY LINE
RR		RAILROAD TRACKS
		RIGHT OF WAY
		SIGN
STA.		STATION
S.S.		STAINLESS STEEL
		STABILIZED CONSTRUCTION ENTRANCE
		STONE AREA
DMH		STORM DRAINAGE MANHOLE
		STORM SEWER LINE
		TEST PIT
T.O.C.		TOP OF CONCRETE
		TRANSMISSION TOWER
		TREE DECIDUOUS
		TREE LINE
TYP.		TYPICAL
		UNDERGROUND ELECTRIC
UWMK		WATERLINE MARKER (EXISTING)
UP		UTILITY POLE
UPL		UTILITY POLE W/ LIGHT
VERT.		VERTICAL
RPZ		REDUCED PRESSURE ZONE AND BACKFLOW PREVENTER
		WATER LINE
WS		WATER SERVICE
WV		WATER VALVE
W/O		WITHOUT





TOWN OF TONAWANDA, NEW YORK
ERIE COUNTY WATER
AUTHORITY

MP-084:
WATER SYSTEM
IMPROVEMENTS
TRANSMISSION MAIN
INSTALLATION
TOWN OF TONAWANDA

ARCADIS PROJ. NO. 30041729

2	2-11-22	ECDOH SUBMITTAL	DJS
1	11-2-21	ECDOH SUBMITTAL	DJS
NO.	DATE	ISSUED FOR	BY

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DATE: MAY 2022
PROJECT NO.: 30041729
FILE NAME: C-02
DESIGNED BY: M. HIGGINS
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER

SHEET TITLE

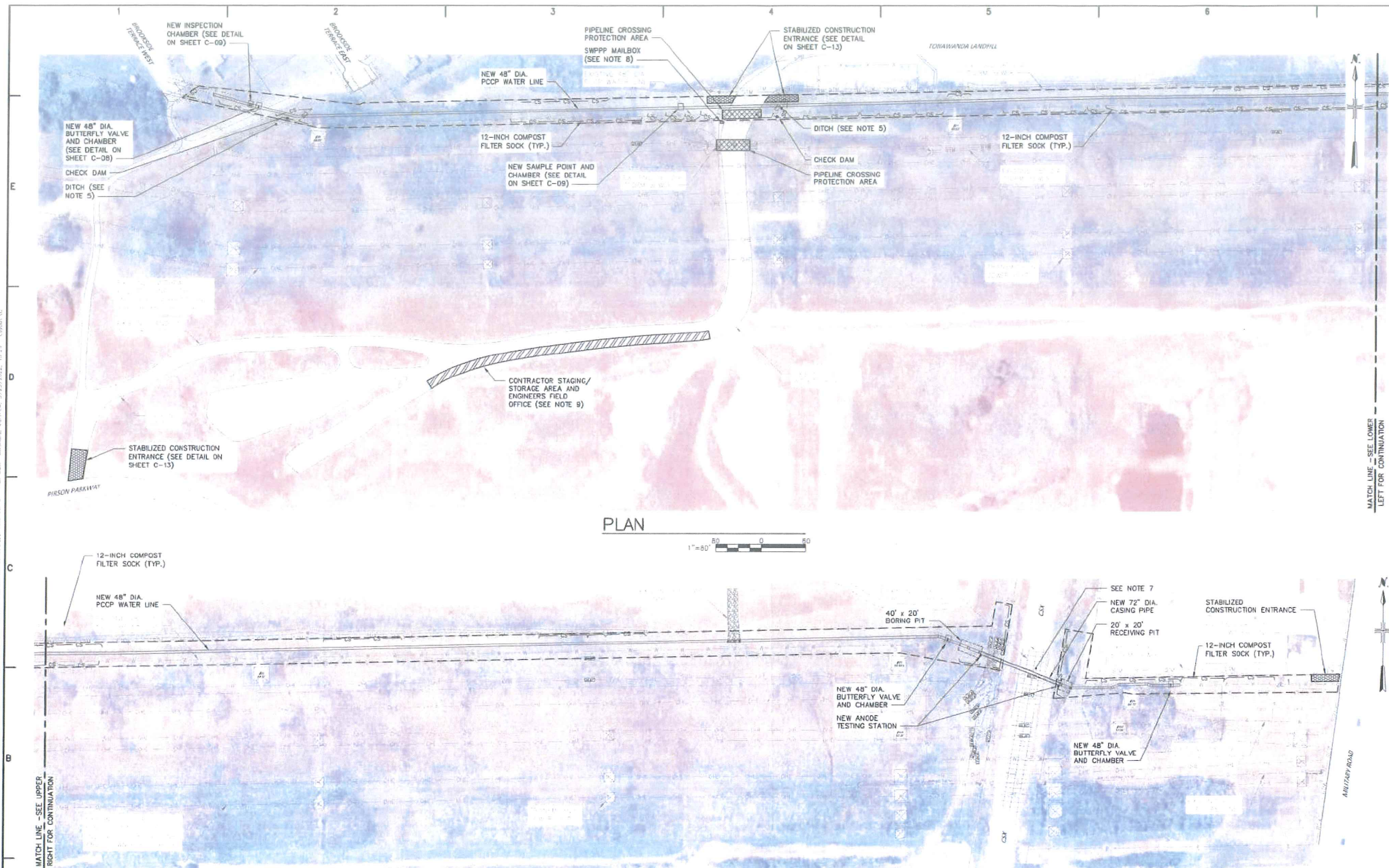
GENERAL

EROSION AND SEDIMENT
CONTROL, PIPELINE
CROSSING PROTECTION
AREAS, CONTRACTOR
STAGING AREAS AND
CONSTRUCTION
ENTRANCES

SALE: AS NOTED

C-02





SHEET 03 OF 16



NOTES

1. PIPELINE CROSSING PROTECTION AREAS AS SHOWN ARE THE MINIMUM LOCATIONS REQUIRED. ADDITIONAL PIPELINE CROSSING AREAS MAY BE REQUIRED AS CONDITIONS WARRANT, AND/OR AS DETERMINED BY THE CONTRACTOR, UTILITY OWNER, ECWA, AND THE ENGINEER. THERE WILL BE NO ADDITIONAL PAYMENT FOR PIPELINE CROSSING PROTECTION AREAS NOT SHOWN OR NOTED ON THE DRAWINGS.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE A DETAILED SUBMITTAL FOR PIPELINE CROSSING PROTECTION AREAS.
3. EROSION AND SEDIMENT CONTROLS MAY BE MOVED TEMPORARILY TO FACILITATE TRENCHING ACTIVITIES.
4. CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO LANDFILL AT ALL TIMES DURING CONSTRUCTION. UPON COMPLETION CONTRACTOR SHALL RESTORE STONE ACCESS ROAD TO PRE-CONSTRUCTION CONDITIONS.
5. DITCH TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS UPON COMPLETION OF THE PROJECT. EROSION CONTROL BLANKET SHALL BE INSTALLED WITHIN THE DITCH TO FACILITATE RESTORATION IN ACCORDANCE WITH THE DETAIL ON SHEET C-14.
6. ALL COSTS ASSOCIATED WITH EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INCLUDED UNDER ITEM NO.1.
7. AT NO TIME DURING CONSTRUCTION ACTIVITIES SHALL RUNOFF BE ALLOWED TO DISCHARGE TOWARDS THE RAILROAD TRACKS. CONTRACTOR SHALL PROTECT ALL RAILROAD DITCHES AND OTHER CSX DRAINAGE FACILITIES DURING CONSTRUCTION.
8. CONTRACTOR SHALL SUPPLY ONE LOCKABLE, WATERTIGHT MAILBOX MOUNTED TO A 4X4 PRESSURE TREATED POST FOR STORAGE OF SWPPP DOCUMENTS FOR THE DURATION OF THE PROJECT. MAILBOX SHALL BE LABELED "SWPPP" 2 SETS OF KEYS SHALL BE PROVIDED. MAILBOX SIZE SHALL BE CAPABLE OF STORING 11"x17" DRAWINGS, PERMIT AND WEEKLY INSPECTION FORMS. EXACT LOCATION TO BE DETERMINED DURING CONSTRUCTION.
9. FINAL LOCATION OF ENGINEERS FIELD OFFICE SHALL BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION.

LEGEND:

	PIPELINE CROSSING PROTECTION AREA		CS	COMPOST FILTER SOCK (12-INCH)
	CONTRACTOR STAGING/ STORAGE AREA			LIMITS OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE			





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ARCADIS PROJ. NO. 30041729

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FILE NAME: C-03
DESIGNED BY: T. SHAFER
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER

SHEET TITLE

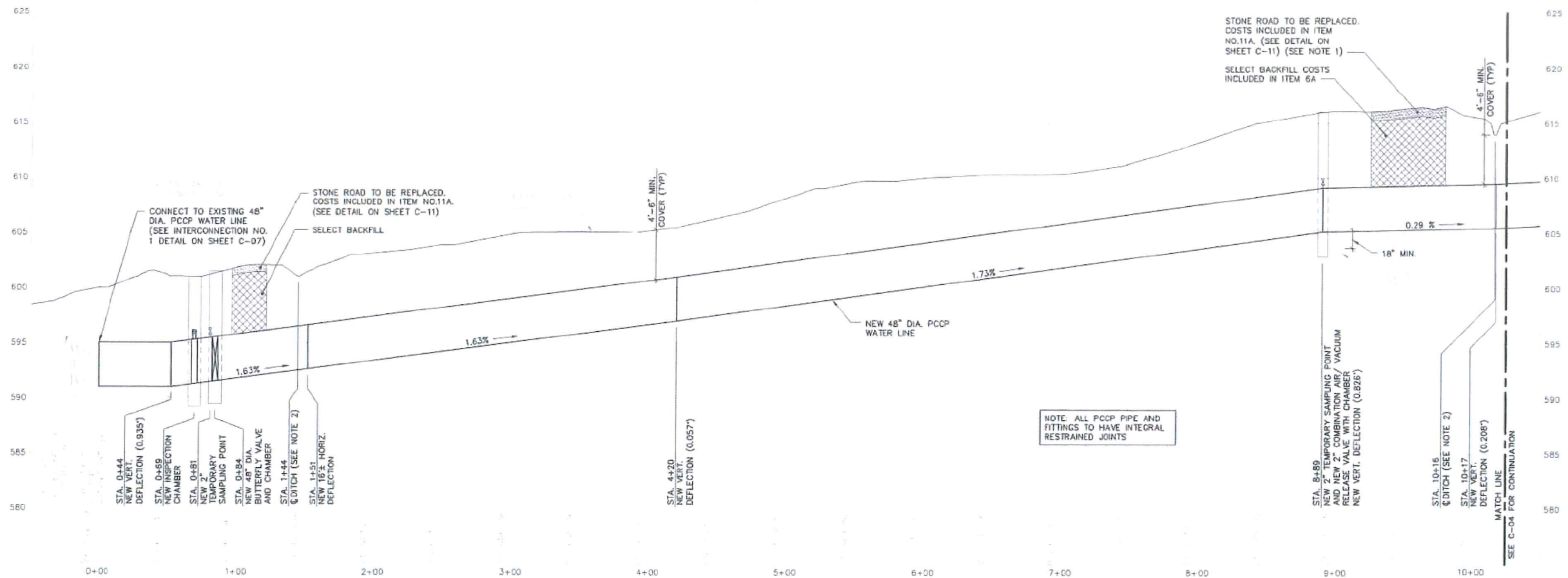
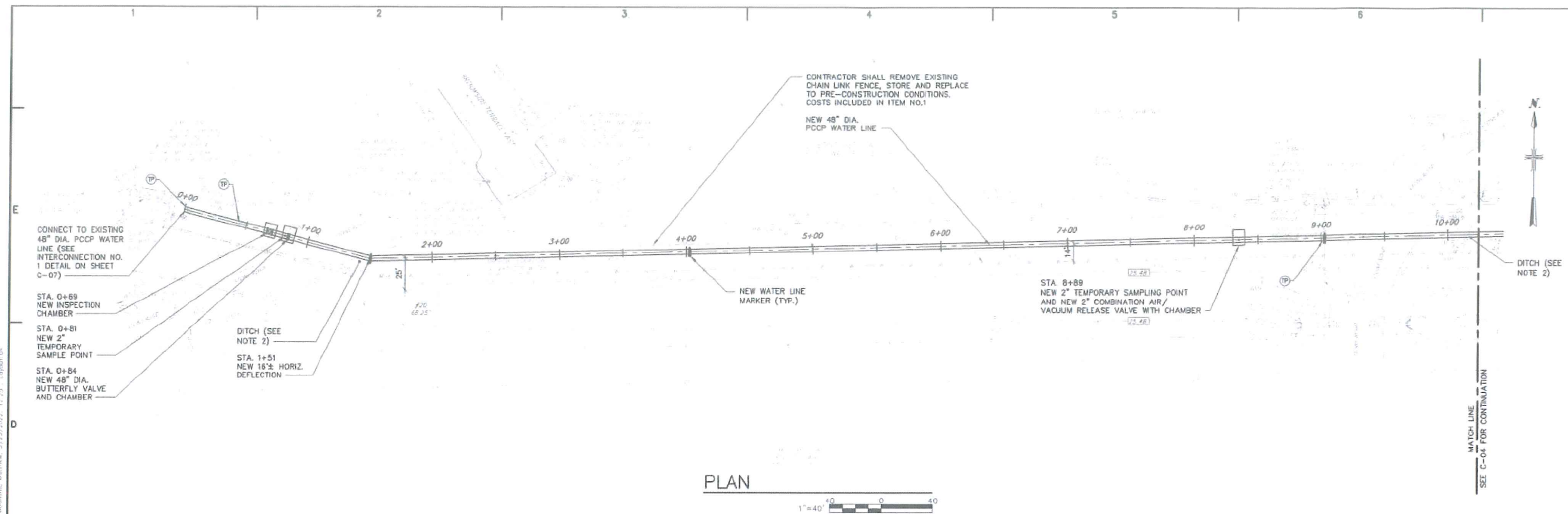
GENERAL

PLAN AND PROFILE
STA. 0+00 - STA.
10+25

SCALE: AS NOTED

C-03

SHEET 04 OF 16



NOTE: ALL PCCP PIPE AND FITTINGS TO HAVE INTEGRAL RESTRAINED JOINTS

NOTES:

1. CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO LANDFILL AT ALL TIMES DURING CONSTRUCTION. UPON COMPLETION CONTRACTOR SHALL RESTORE STONE ACCESS ROAD TO PRE-CONSTRUCTION CONDITIONS. COSTS INCLUDED IN ITEM NO.11A.
2. DITCH TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS UPON COMPLETION OF THE PROJECT. EROSION CONTROL BLANKET SHALL BE INSTALLED WITHIN THE DITCH TO FACILITATE RESTORATION IN ACCORDANCE WITH THE DETAIL ON SHEET C-14. COSTS INCLUDED IN ITEM NO.11A.



LEGEND:



NATIONAL GRID TOWER NUMBER AND WIRE HEIGHT AT TOWER

25.48

WIRE HEIGHT AT MID-SPAN BETWEEN TOWERS

PROFILE





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TOWN OF TONAWANDA

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FILE NAME: C-04
DESIGNED BY: T. SHAFER
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CHECKED BY: D. SEIDER

SHEET TITLE

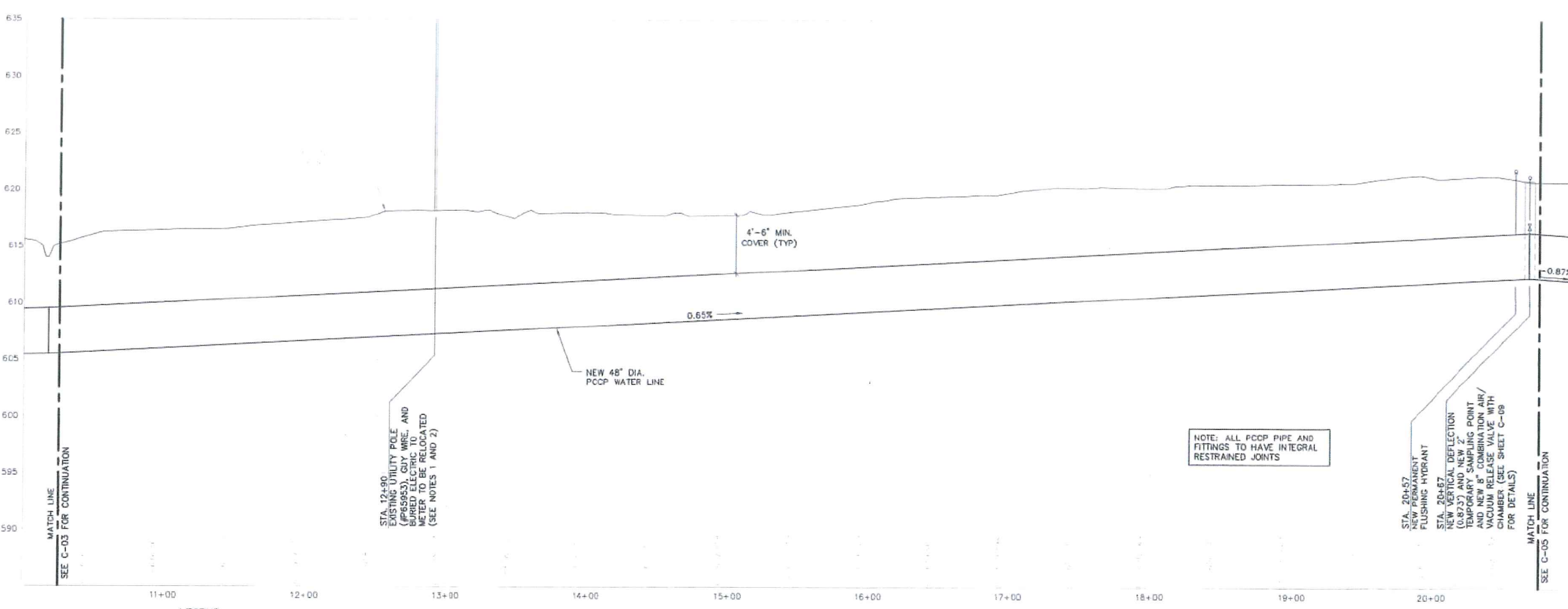
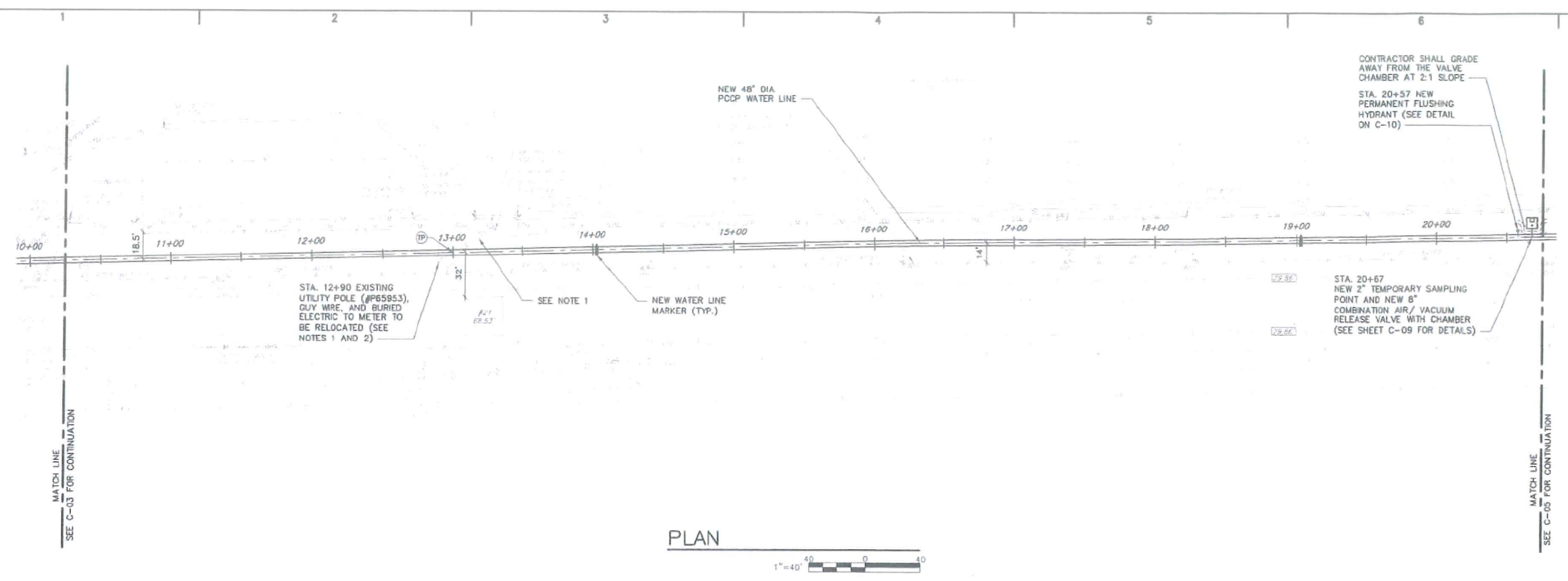
GENERAL

PLAN AND PROFILE
STA. 10+25 -
STA. 20+75

SCALE: AS NOTED

C-04
SHEET 05 OF 16

EXHIBIT "A-5"



LEGEND:

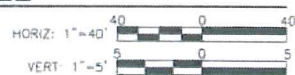


NATIONAL GRID TOWER NUMBER AND WIRE HEIGHT AT TOWER



WIRE HEIGHT AT MID-SPAN BETWEEN TOWERS

PROFILE



NOTES:

- CONTRACTOR SHALL COORDINATE WITH NATIONAL GRID AND TOWN OF TONAWANDA IN ORDER TO MAINTAIN ELECTRICAL SERVICE TO LANDFILL DURING CONSTRUCTION.
- CONTRACTOR SHALL CALL 1-800-NIAGARA AND REFERENCE THE POLE NUMBER (65953) AND MIKE ROTTENBERG TO PERMANENTLY RELOCATE POLE NORTH OF NEW WATER LINE. CONTRACTOR TO COORDINATE WITH TOWN OF TONAWANDA TO RELOCATE THE BURIED PORTION OF THE LANDFILL ELECTRICAL SERVICE. ALL COSTS SHALL BE INCLUDED UNDER ITEM NO.1B1.





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ARCADIS PROJ. NO. 30041729

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1	11-2-21	ECDOH SUBMITTAL	DJS

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FILE NAME: C-05
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CHECKED BY: D. SEIDER

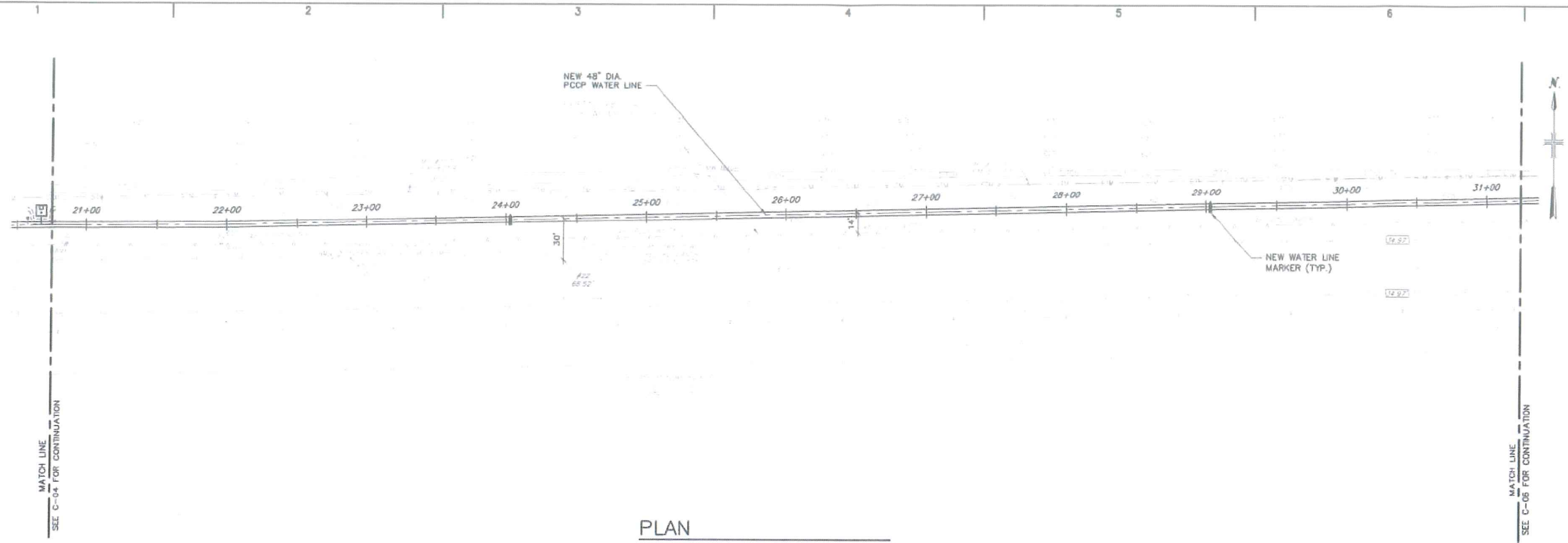
SHEET TITLE

GENERAL
PLAN AND PROFILE
STA. 20+75 - STA.
31+25

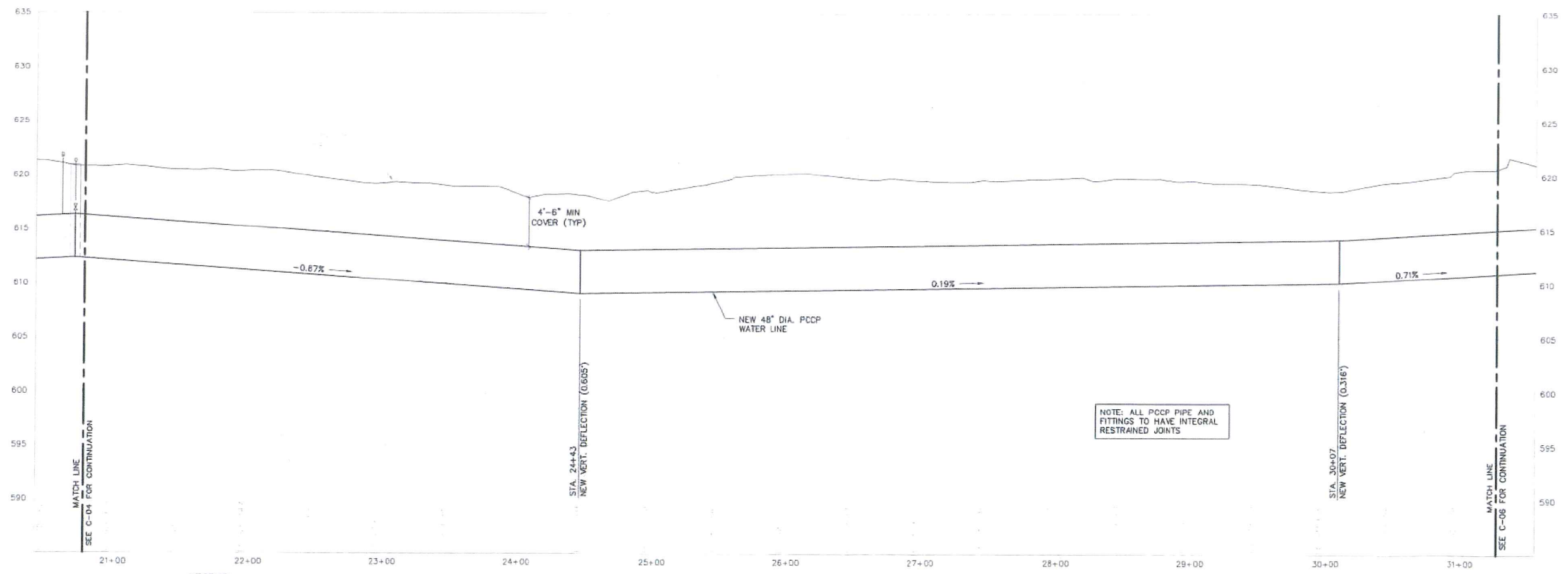
SCALE: AS NOTED

C-05
SHEET 06 OF 16

EXHIBIT "A-6"



PLAN



PROFILE



LEGEND:



NATIONAL GRID TOWER NUMBER AND WIRE HEIGHT AT TOWER



WIRE HEIGHT AT MID-SPAN BETWEEN TOWERS

NOTE: ALL PCCP PIPE AND FITTINGS TO HAVE INTEGRAL RESTRAINED JOINTS



PROJECT: TOWN OF TONAWANDA, NEW YORK
PROJECT NO.: 30041729
SHEET: C-05
DATE: MAY 2022
DESIGNED BY: T. SHAFER
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER
SCALE: AS NOTED
SHEET: 06 OF 16



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1	11-2-21	ECDOM SUBMITTAL	D/S

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PROJECT NO.: 30041729
FILE NAME: C-05
DESIGNED BY: T. SHAFER
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER

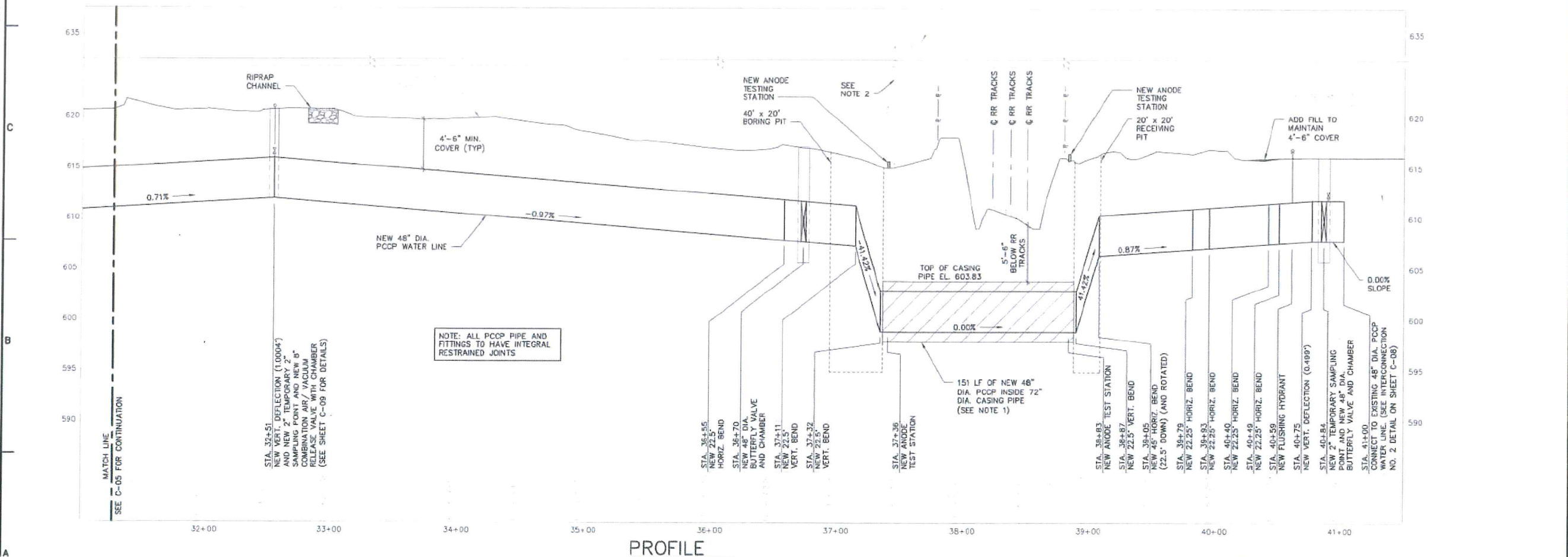
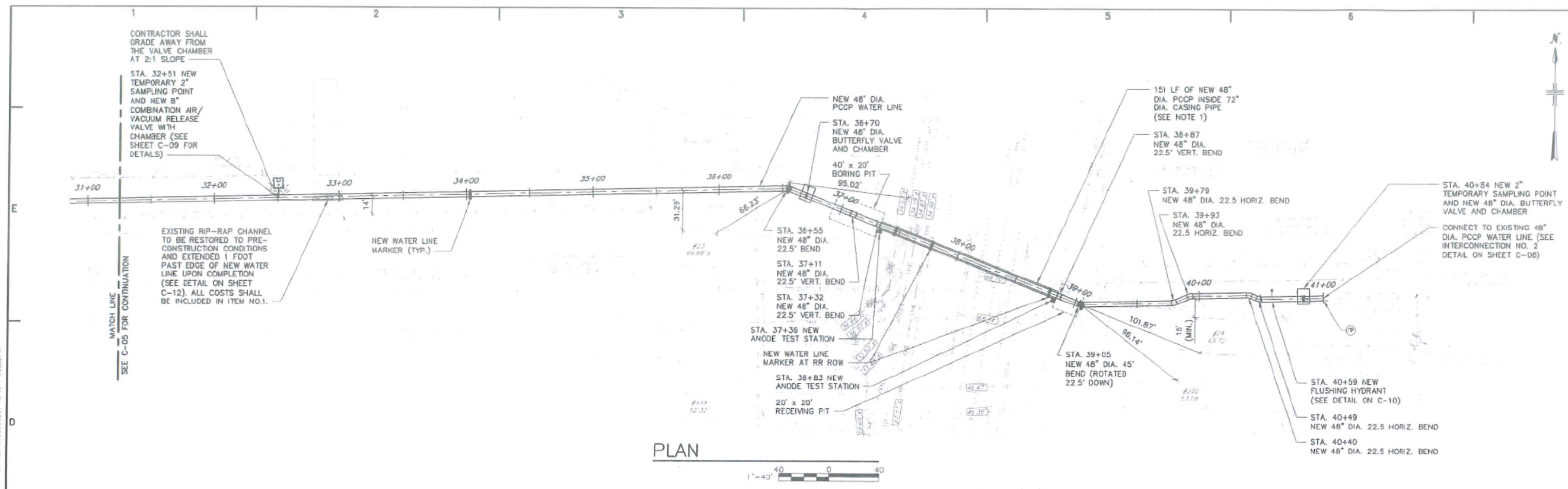
SHEET TITLE
GENERAL

PLAN AND PROFILE
STA. 31+25 - STA.
40+98

SCALE: AS NOTED

C-06
SHEET 07 OF 16

EXHIBIT "A-7"



LEGEND:

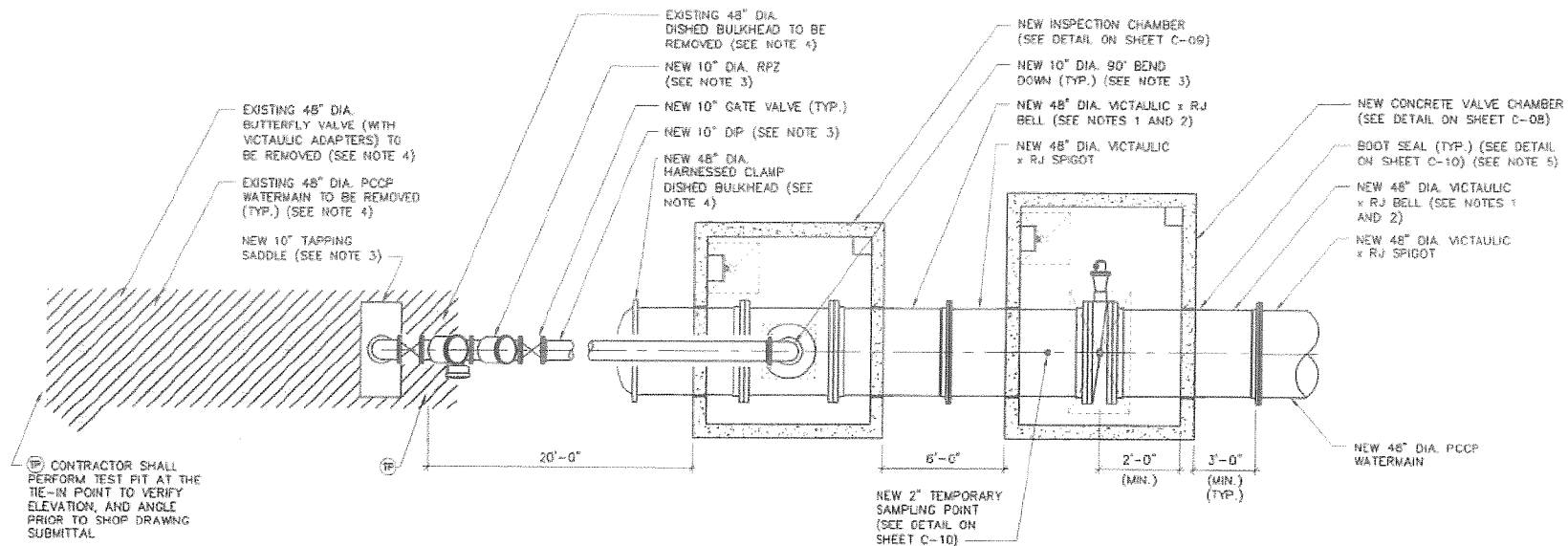
#20
08.25
NATIONAL GRID TOWER NUMBER AND WIRE HEIGHT AT TOWER

#25.48
WIRE HEIGHT AT MID-SPAN BETWEEN TOWERS

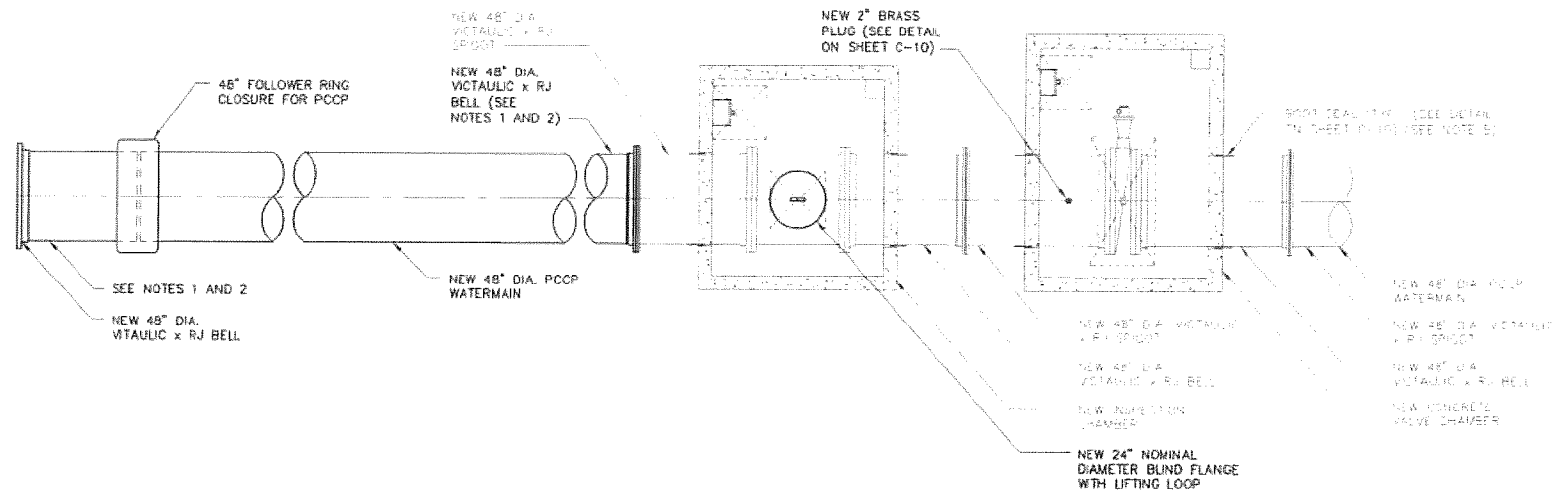
- NOTES:**
- EXTERIOR OF CASING PIPE SHALL BE COATED PER SECTION 15121 OF THE SPECIFICATIONS.
 - OVERHEAD WIRE HEIGHTS VARY BASED ON TEMPERATURE. DISTANCE NOTED IS BASED ON SURVEY DATE/ SITE CONDITIONS AND MAY VARY.
 - DISCHARGE POINT FOR FLUSHING ACTIVITIES IS LOCATED APPROXIMATELY 325 FEET EAST TO CATCH BASIN LOCATED ALONG MILITARY ROAD. SEE SHEET C-08 FOR PARTIAL PLAN AND NOTES.

1
2
3
4
5
6
E
D
C
B
A

PRESSURE TESTING SCHEDULE				
PIPE DIAMETER (in)	PIPE MATERIAL		WORKING PRESSURE (psi)	TEST PRESSURE (psi)
	Type	Rating		
48	PCCP	LCP	150	150
6	DIP	CLASS 53	150	150
8	DIP	CLASS 53	150	150
10	DIP	CLASS 53	150	150



PRESSURE TESTING AND DISINFECTION



FINAL CONNECTION

INTERCONNECTION NO. 1 DETAIL



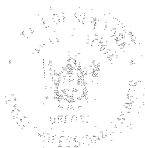
- NOTES:
- SEE THE SEQUENCE OF CONSTRUCTION IN SECTION 01100 OF THE SPECIFICATIONS.
 - ALL EXPOSED STEEL PIPE SHALL BE COATED PER SECTION 15109 OF THE SPECIFICATIONS.
 - ALL 10" PIPING TO BE RESTRAINED. EXISTING 10" PIPING, VALVES, AND FITTINGS TO BE REMOVED AT COMPLETION OF PRESSURE TESTING AND DISINFECTION OPERATIONS.
 - EXISTING VALVE, PIPING, AND 48" DIA. DISHED BULKHEADS TO BE REMOVED AT COMPLETION OF PRESSURE TESTING AND DISINFECTION OPERATIONS.
 - CONCRETE PIPE SHALL HAVE A SMOOTH FINISH AT ALL BOOT SEAL LOCATIONS.



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1	11-2-21	ECDOH SUBMITTAL	D/S

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FILE NAME: C-07
DESIGNED BY: T. SHAFER
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER

SHEET TITLE

GENERAL

INTERCONNECTION
NO. 1 DETAIL

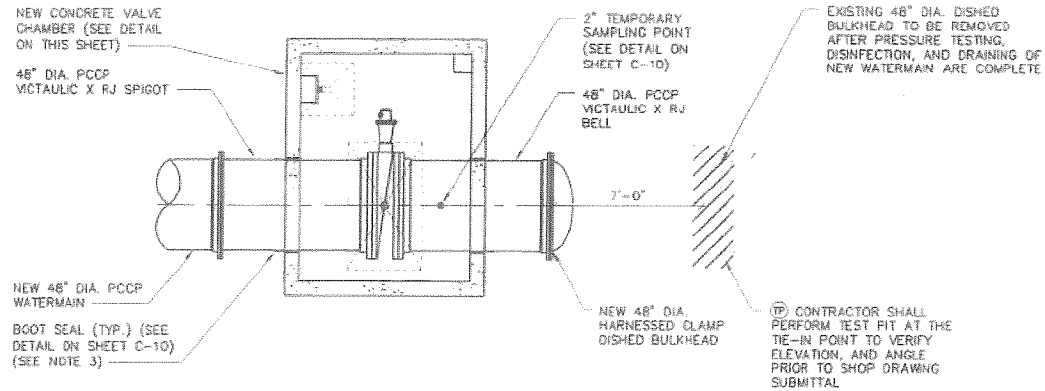
SCALE: 1" = 4'

C-07

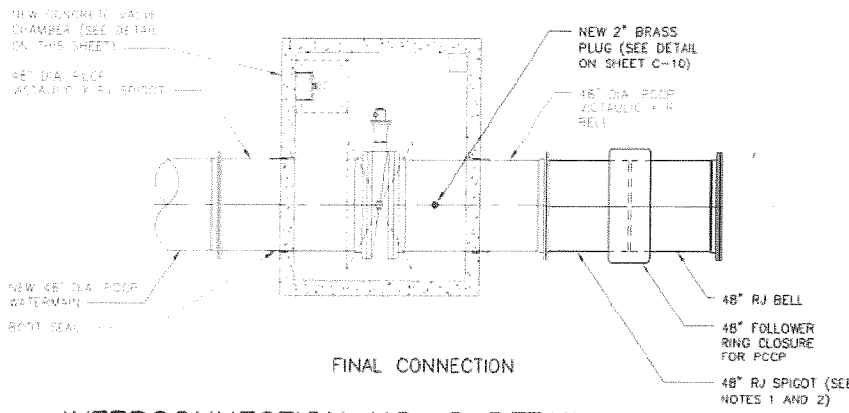
SHEET 08 OF 16

EXHIBIT "A-8"

17 ALL RIGHTS RESERVED. ANY REPRODUCTION OR TRANSMISSION IN ANY FORM OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM ARCADIS OF NEW YORK, INC. IS PROHIBITED. 4/25/2022, 09:31



PRESSURE TESTING AND DISINFECTION



FINAL CONNECTION

INTERCONNECTION NO. 2 DETAIL

NOTES:

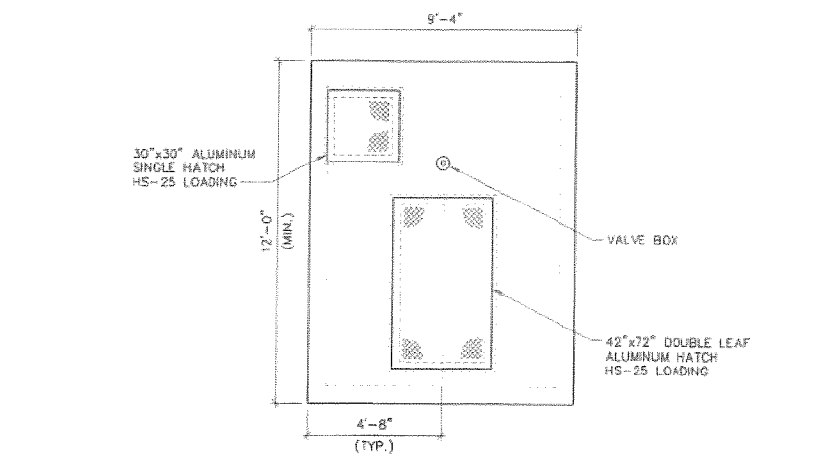
1. SEE THE SEQUENCE OF CONSTRUCTION IN SECTION 01100 OF THE SPECIFICATIONS.
2. ALL EXPOSED STEEL PIPE SHALL BE COATED PER SECTION 15100 OF THE SPECIFICATIONS.
3. CONCRETE PIPE SHALL HAVE A SMOOTH FINISH AT ALL BOOT SEALS LOCATIONS.



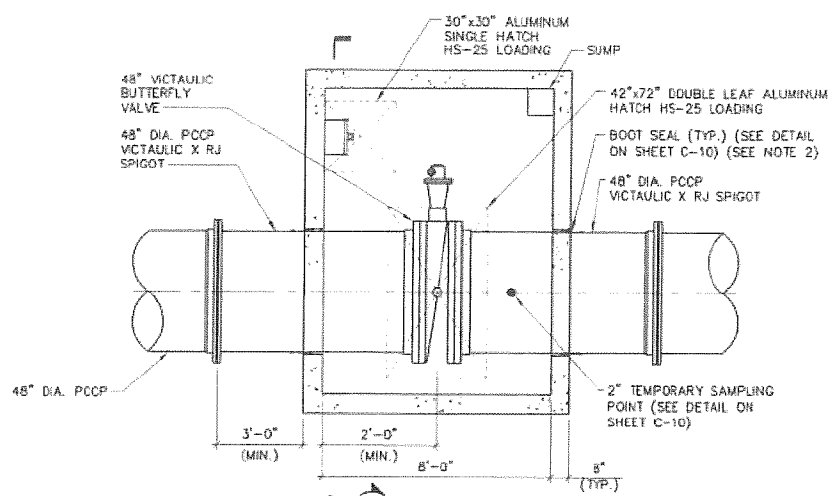
FLUSHING WATER DISCHARGE LOCATION PARTIAL PLAN

NOTES:

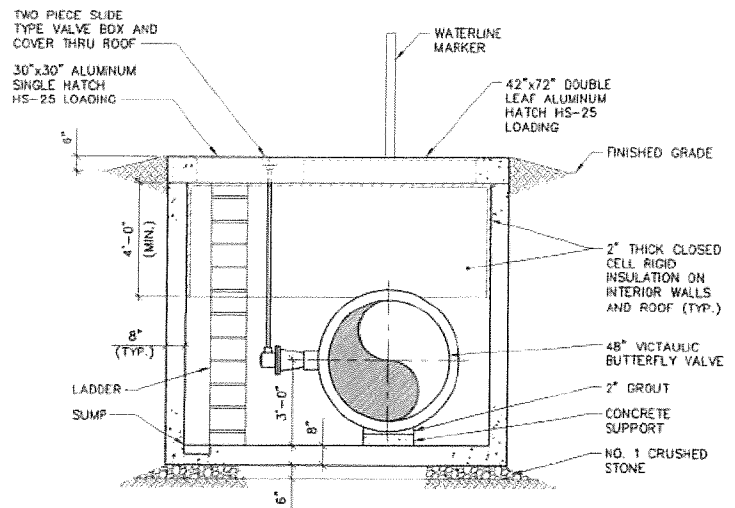
1. CONTRACTOR SHALL NOT DISCHARGE FLUSHING WATER ONTO NATIONAL GRID OR RAILROAD PROPERTIES.
2. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE FLUSHING WATER DISCHARGE. THIS INCLUDES ANY TEMPORARY PIPING TO ROUTE FLUSHING WATER TO DESIGNATED CATCH BASIN AND OR TRUCKING WATER OFF-SITE. DISCHARGE TO THE CATCH BASIN SHALL BE PERFORMED DURING TIMES AS SPECIFIED BY NYSDDOT.
3. LIMIT OF FLUSHING WATER DISCHARGE TO EXISTING 12\"/>
4. ALL COSTS SHALL BE INCLUDED IN ITEM NO.1.



ROOF PLAN



PLAN



SECTION 1/C-08

CONCRETE VALVE CHAMBER DETAIL

NOTE:

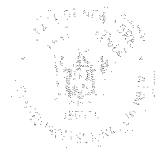
1. CONCRETE VALVE CHAMBER ORIENTATION AS SHOWN ON PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER.
2. CONCRETE PIPE SHALL HAVE A SMOOTH FINISH AT ALL BOOT SEALS LOCATIONS.



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FILE NAME: C-08
DESIGNED BY: T. SHAFER
DRAWN BY: M. WELSHANS
CHECKED BY: D. SEIDER

SHEET TITLE

GENERAL

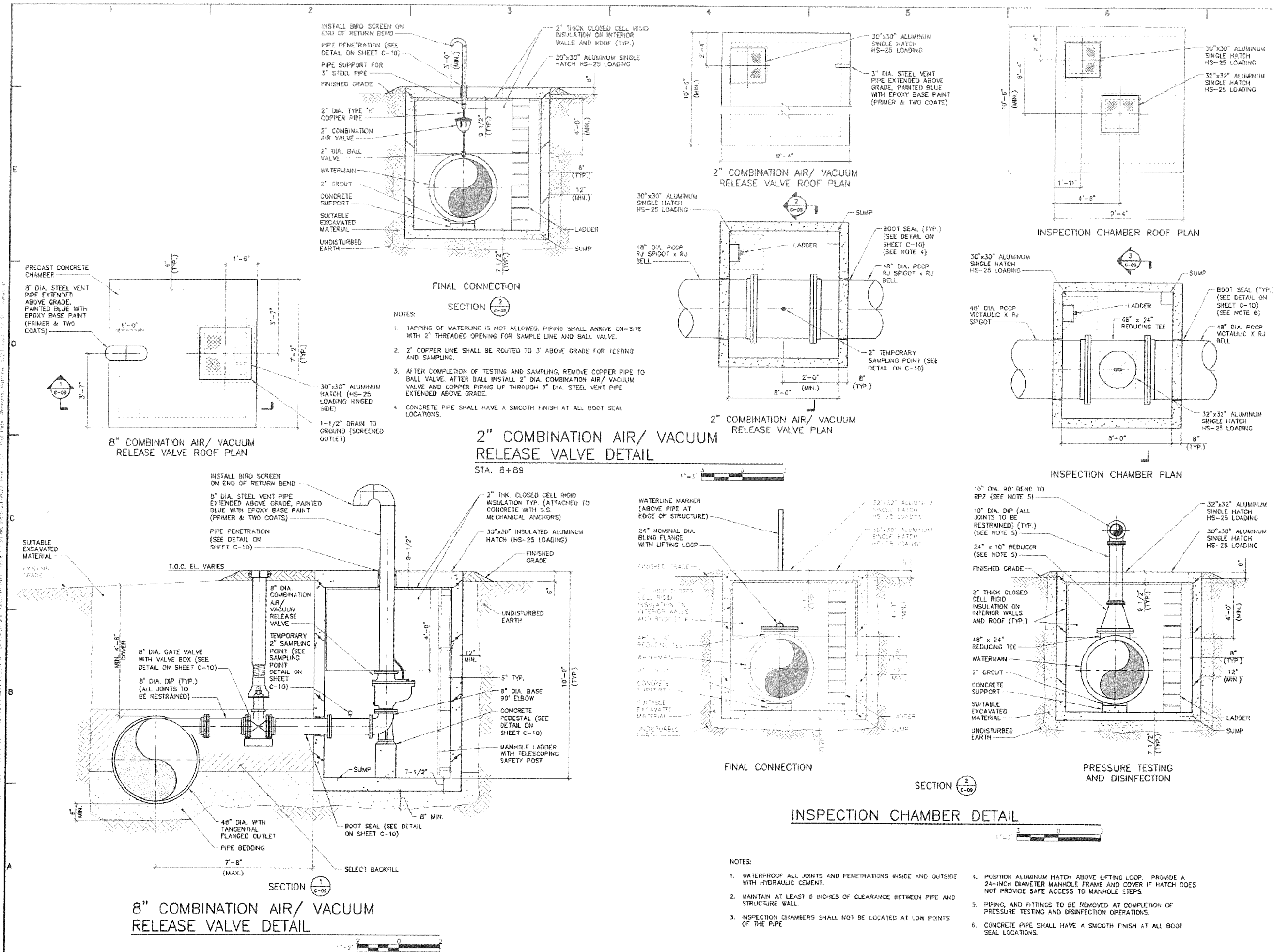
INTERCONNECTION
NO. 2 AND
CONCRETE VALVE
CHAMBER DETAILS
AND PARTIAL PLAN

SCALE:
AS NOTED

C-08

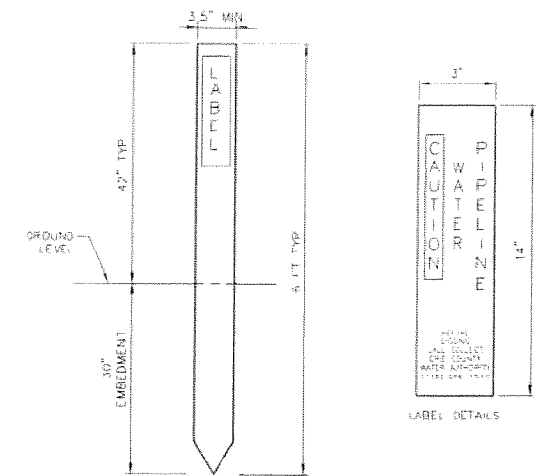
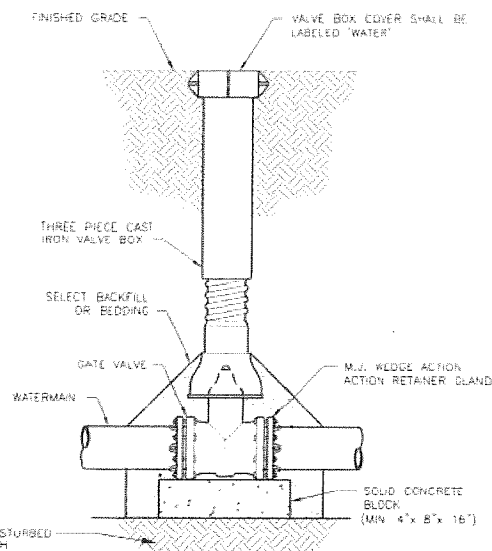
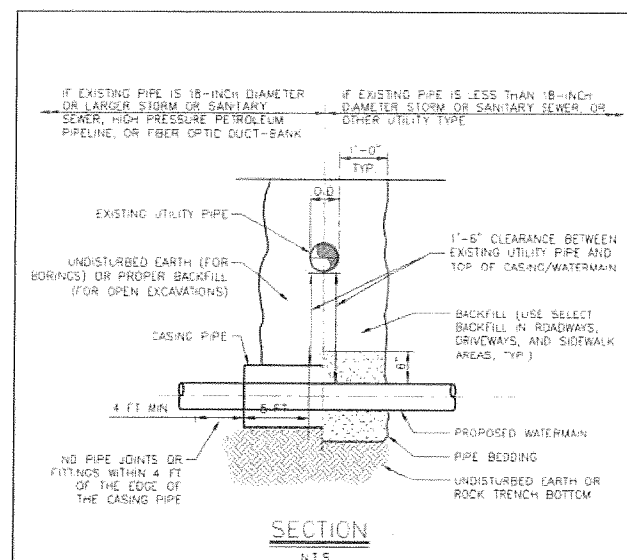
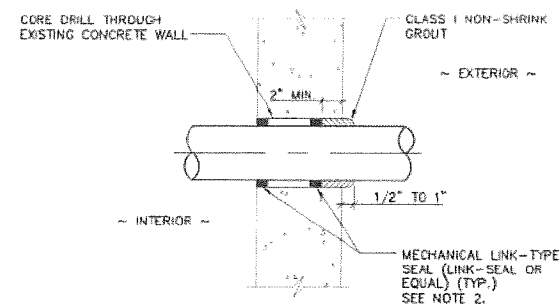
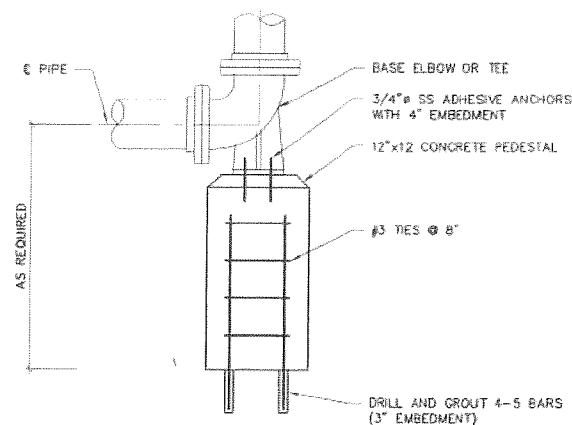
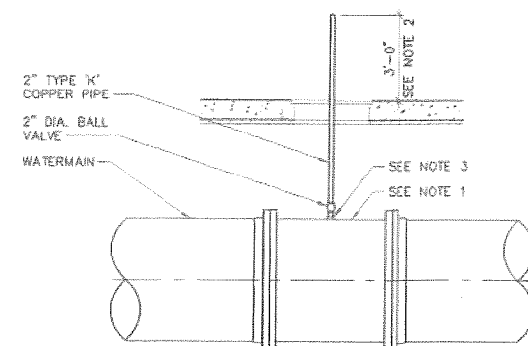
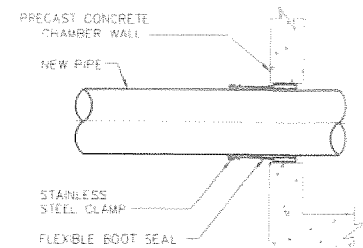
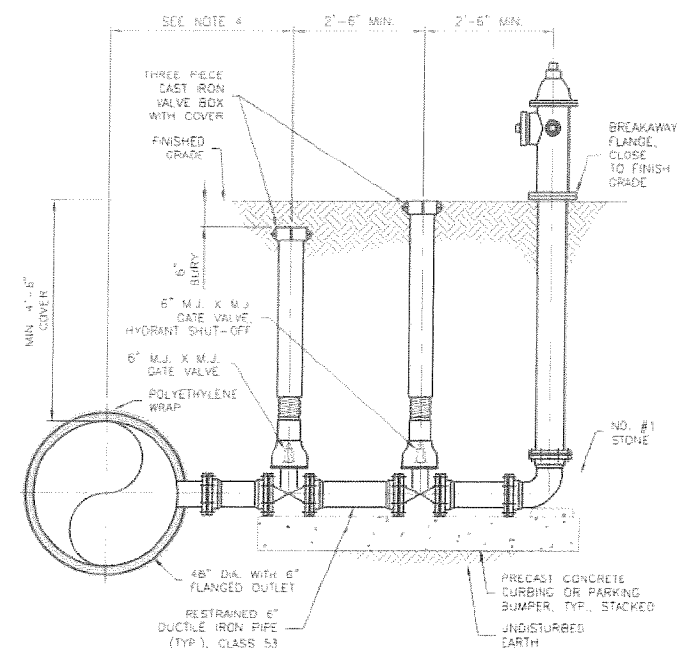
SHEET 09 OF 16

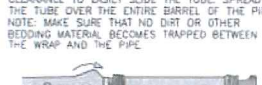
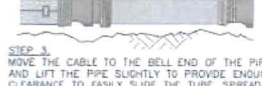
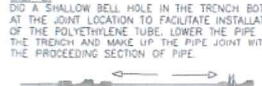
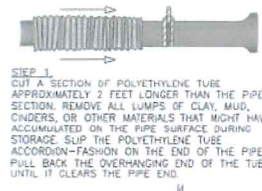
EXHIBIT "A-9"



NOTES:

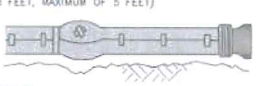
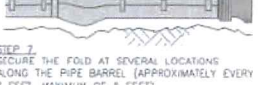
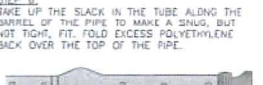
1. WATERPROOF ALL JOINTS AND PENETRATIONS INSIDE AND OUTSIDE WITH HYDRAULIC CEMENT.
2. MAINTAIN AT LEAST 6 INCHES OF CLEARANCE BETWEEN PIPE AND STRUCTURE WALL.
3. INSPECTION CHAMBERS SHALL NOT BE LOCATED AT LOW POINTS OF THE PIPE.
4. POSITION ALUMINUM HATCH ABOVE LIFTING LOOP. PROVIDE A 24-INCH DIAMETER MANHOLE FRAME AND COVER IF HATCH DOES NOT PROVIDE SAFE ACCESS TO MANHOLE STEPS.
5. PIPING, AND FITTINGS TO BE REMOVED AT COMPLETION OF PRESSURE TESTING AND DISINFECTION OPERATIONS.
6. CONCRETE PIPE SHALL HAVE A SMOOTH FINISH AT ALL BOOT SEAL LOCATIONS.



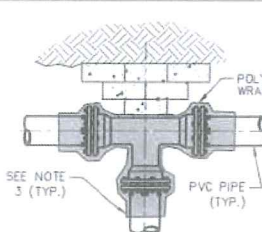


STANDARD DETAIL POLYETHYLENE ENCASEMENT OF DUCTILE IRON PIPE AND PRE-STRESSED CONCRETE CYLINDER PIPE

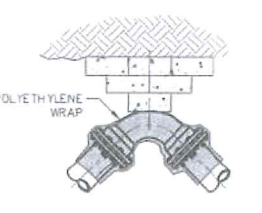
NOT TO SCALE



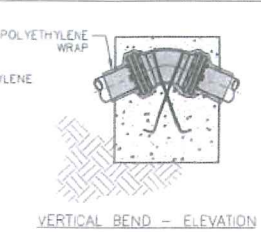
- NOTES:
1. POLYETHYLENE WRAP (POLYWRAP) SHALL BE OF PROPER DIAMETER TO FIT OVER BELLS AND EXTERNAL WEDGE-ACTION RETAINER GLANDS.
 2. CAST AND DUCTILE IRON FITTINGS (BENDS, TEES, VALVES, ETC.) ARE TO BE WRAPPED IN POLYWRAP AND SECURED IN PLACE.
 3. DO NOT USE CHAINS, METAL WIRE, OR OTHER SUPPORTING SYSTEMS WHICH MAY DAMAGE THE POLYETHYLENE ENCASEMENT. REPLACE DAMAGED POLYWRAP ACCORDINGLY.
 4. REPEAT STEPS 1 THRU 8 FOR DOUBLE POLYETHYLENE ENCASEMENT REQUIRED FOR DUCTILE IRON PIPE AND FITTINGS PRIOR TO BACKFILLING.



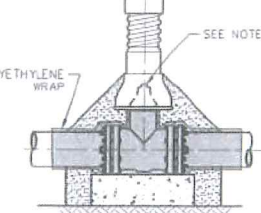
TEE - PLAN
N.T.S.



HORIZONTAL BEND - PLAN
N.T.S.



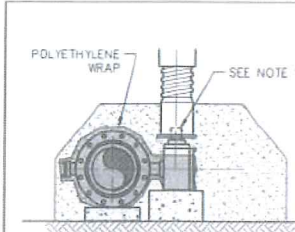
VERTICAL BEND - ELEVATION
N.T.S.



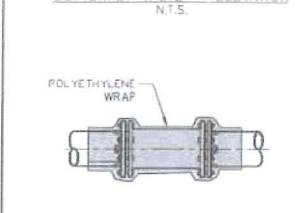
GATE VALVE - ELEVATION
N.T.S.

- NOTES:
1. TWO LAYERS (DOUBLE) POLYETHYLENE WRAP IS TO BE PLACED AROUND THE ENTIRE FITTING, AND SECURED IN PLACE WITH POLYETHYLENE TAPE. PROVIDE SUFFICIENT SLACK SO THAT POLYETHYLENE WRAP IS NOT PUNCTURED DURING BACKFILL AND DOES NOT ENTRAP AIR. POLYETHYLENE WRAP IS NOT TO BE INSTALLED WITHIN 6 INCHES OF VALVE OPERATING NUT ON VALVES.
 2. ALL FITTINGS TO BE POLYETHYLENE WRAPPED PRIOR TO BEDDING AND CONCRETE BLOCK PLACEMENT.
 3. POLYETHYLENE WRAP IS TO BE EXTENDED A MINIMUM OF 12" PAST THE FITTING ON EACH LEG AND SECURED TO THE PIPE (OR POLYWRAP IF DIP) WITH AT LEAST TWO CIRCUMFERENTIAL WRAPS OF POLYETHYLENE TAPE.

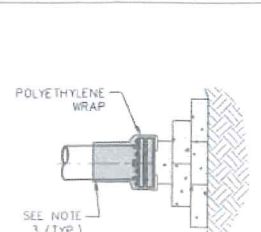
ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL POLYWRAPPING CAST/DUCTILE IRON FITTINGS	DWG. NO. SD39A DATE 3/7/18 REVISED 12/18
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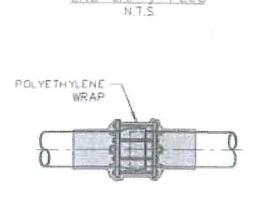
BUTTERFLY VALVE - ELEVATION
N.T.S.



SOLID SLEEVE OR
RESTRAINED COUPLING
N.T.S.



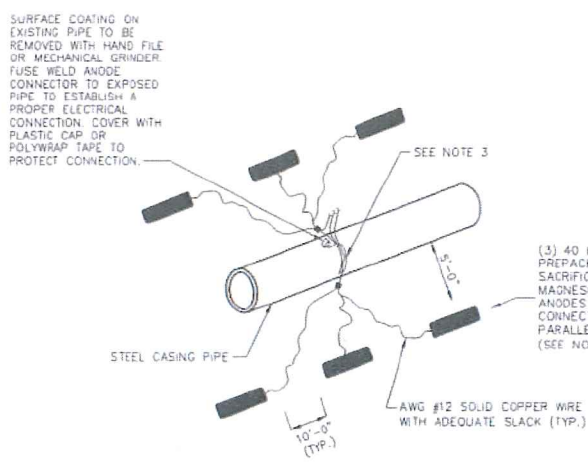
END CAP / PLUG
N.T.S.



EXTERNAL JOINT RESTRAINT
N.T.S.

- NOTES:
1. TWO LAYERS (DOUBLE) POLYETHYLENE WRAP IS TO BE PLACED AROUND THE ENTIRE FITTING, AND SECURED IN PLACE WITH POLYETHYLENE TAPE. PROVIDE SUFFICIENT SLACK SO THAT POLYETHYLENE WRAP IS NOT PUNCTURED DURING BACKFILL AND DOES NOT ENTRAP AIR. POLYETHYLENE WRAP IS NOT TO BE INSTALLED WITHIN 6 INCHES OF VALVE OPERATING NUT ON VALVES.
 2. ALL FITTINGS TO BE POLYETHYLENE WRAPPED PRIOR TO BEDDING AND CONCRETE BLOCK PLACEMENT.
 3. POLYETHYLENE WRAP IS TO BE EXTENDED A MINIMUM OF 12" PAST THE FITTING ON EACH LEG AND SECURED TO THE PIPE (OR POLYWRAP IF DIP) WITH AT LEAST TWO CIRCUMFERENTIAL WRAPS OF POLYETHYLENE TAPE.

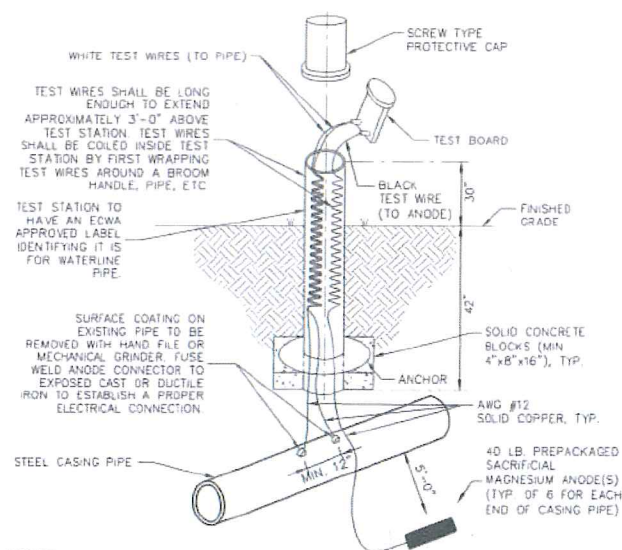
ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL POLYWRAPPING CAST/DUCTILE IRON FITTINGS	DWG. NO. SD39B DATE 12/18 REVISED
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- NOTES:
1. INSTALL MAGNESIUM ANODES PER MANUFACTURER'S RECOMMENDATIONS.
 2. SACRIFICIAL ANODE BAG SHALL BE WETTED BEFORE BACKFILLING.
 3. WIRE TO BE PLACED LOOSELY ON PIPE SURFACE AND SECURED IN PLACE WITH POLYWRAP TAPE. WIRE SHALL BE PLACED WITHOUT TENSION ONTO BOTTOM OF EXCAVATION AND CAREFULLY BACKFILLED WITH STONE TO PREVENT DAMAGE.
 4. FOR CAST IRON AND DUCTILE IRON WATERLINE, ANY EXISTING POLYWRAP AROUND PIPE SHALL BE SECURED AROUND CONNECTING WIRES AND TAPED UP TO PROTECT WATERLINE AND WIRING ACCORDINGLY.
 5. INSTALL SIX (6) 40-POUND MAGNESIUM ANODES ON EACH END OF THE CASING PIPE (A TOTAL OF 12 ANODES). ON EACH SIDE OF THE CASING PIPE, THE SIX SHALL BE DISTRIBUTED AS TWO GROUPS OF THREE ON EITHER SIDE OF THE PIPE. EACH ANODE SHALL BE 5 FEET IN LENGTH AND 5 FEET IN DIAMETER.

STANDARD DETAIL MAGNESIUM ANODE INSTALLATION

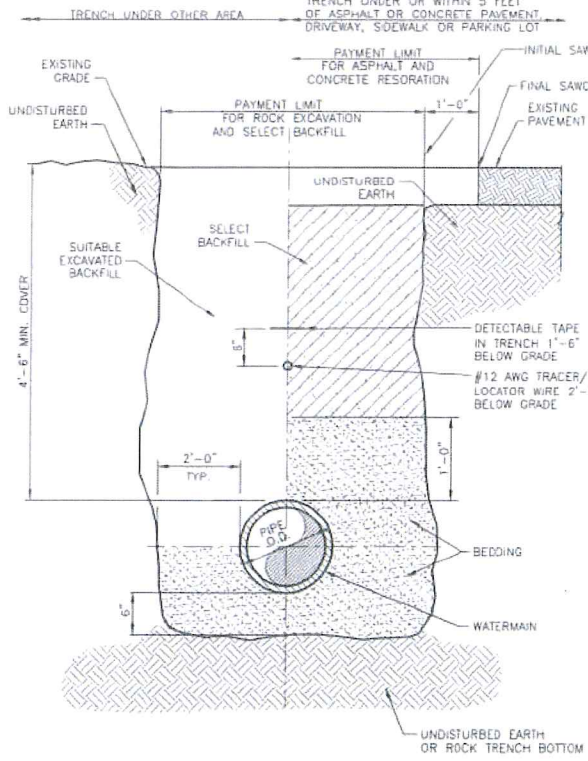
NOT TO SCALE



- NOTES:
1. TEST STATION SHALL ONLY BE INSTALLED IN GRASS AREAS, MINIMUM OF 3 FT FROM SIDEWALK, DRIVEWAY AND PAVEMENT AREAS.
 2. TEST STATION SHALL BE MADE OF POLYETHYLENE OR POLYCARBONATE AND BLUE IN COLOR.
 3. SACRIFICIAL ANODE BAGS SHALL BE WETTED BEFORE BACKFILLING.
 4. ANY EXISTING POLYWRAP AROUND WATERLINE SHALL BE RESECURED AROUND TEST WIRES WITH POLYWRAP TAPE TO PROTECT PIPE AND WIRING ACCORDINGLY.
 5. CONTRACTOR SHALL DEMONSTRATE THAT TEST STATION IS FUNCTIONING PROPERLY AFTER INSTALLATION IS COMPLETE.

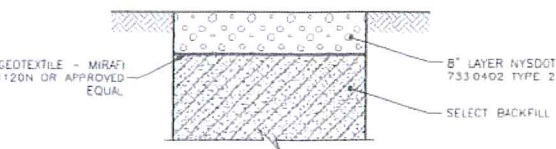
STANDARD DETAIL MAGNESIUM ANODE TESTING STATION FOR STEEL CASING PIPE

NOT TO SCALE



STANDARD DETAIL TRENCH UP TO 48-INCH DIAMETER WATERMAIN

NOT TO SCALE



STONE ROAD REPLACEMENT DETAIL

NOT TO SCALE

LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS

SEALS

TOWN OF TONAWANDA, NEW YORK
ERIE COUNTY WATER
AUTHORITY

MP-084:
WATER SYSTEM
IMPROVEMENTS
TRANSMISSION MAIN
INSTALLATION
TOWN OF TONAWANDA

ARCADIS PROJ. NO. 30041729

NO.	DATE	ISSUED FOR	BY
2	2-11-22	ECCDH SUBMITTAL	DJS
1	11-2-21	ECCDH SUBMITTAL	DJS

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DATE: MAY 2022

PROJECT NO.: 30041729

FILE NAME: C-11

DESIGNED BY: T. SHAFER

DRAWN BY: M. WELSHANS

CHECKED BY: D. SEIDER

SHEET TITLE: GENERAL

MISCELLANEOUS
DETAILS II

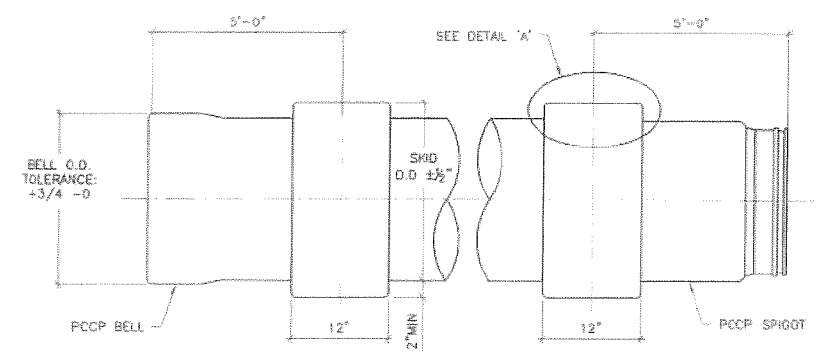
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C-11

SHEET 12 OF 16

EXHIBIT "A-12"

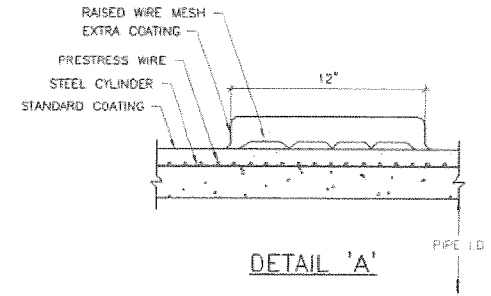
ARCADIS PROJECT NO. 30041728 SHEET C-12 OF 16



PIPE SIZE	SINGLE WRAP & COAT BELL O.D.
48"	56"

NOTES:
GENERALLY, THE FIRST AND LAST PIPE INSERTED INTO THE CASING PIPE WILL HAVE RAISED COATING SKIDS ON EACH END AND SUBSEQUENT PIPE WILL ONLY HAVE ONE COATING SKID, THE LAYING SCHEDULE WILL INDICATE SKID REQUIREMENTS.

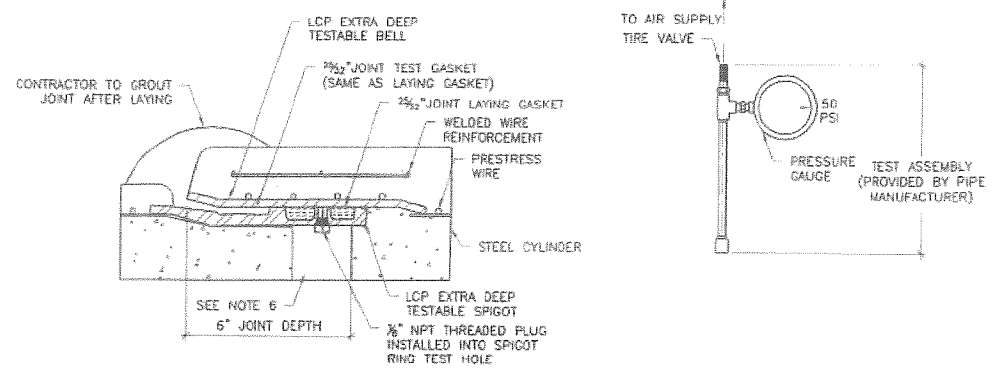
ELEVATION



DETAIL 'A'

48" DIA. PCCP WITH RAISED MORTAR COATING SKIDS CASING PIPE/TUNNEL LINER INSTALLATION

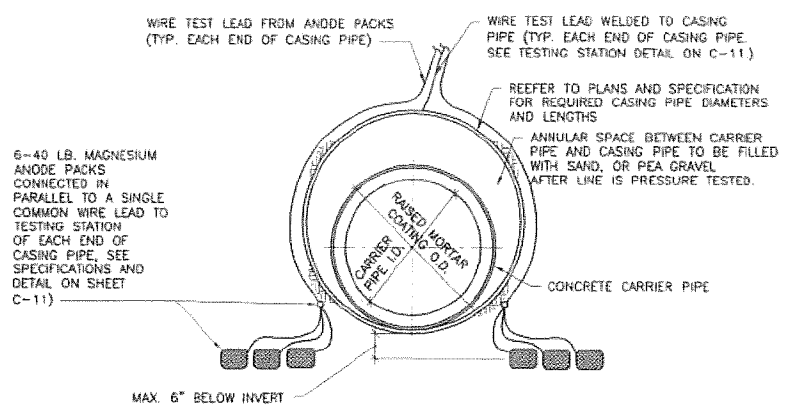
NOT TO SCALE



- NOTES:
1. PRIOR TO ASSEMBLING THE JOINT, REMOVE AND SAVE 1/2" NPT PLUG.
 2. INSTALL TEST ASSEMBLY INTO SPIGOT RING TEST HOLE. EXERCISE CARE TO AVOID CROSS THREADING.
 3. PRESSURE THE TEST ASSEMBLY TO THE SPECIFIED AIR PRESSURE OR TO 50 P.S.I., WHICHEVER IS LESS AND HOLD FOR 3 MINUTES, LOSS IN PRESSURE SHOULD NOT EXCEED 5 P.S.I. FOR A SUCCESSFUL TEST.
 4. AFTER TEST, RELEASE PRESSURE AND REMOVE TEST ASSEMBLY. REPLACE 1/2" NPT PLUG.
 5. TEST HOLE TO BE FILLED WITH PORTLAND CEMENT MORTAR BY LAYING CREW AFTER TESTING AND INSTALLATION OF PLUG.
 6. THE JOINT SHOULD BE TESTED AS SOON AFTER ASSEMBLY AS POSSIBLE.

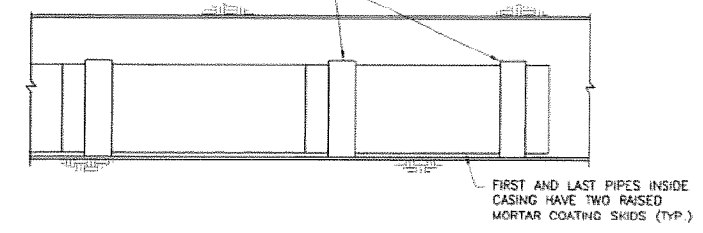
48" PCCP LCP EXTRA DEEP TESTABLE JOINT

NOT TO SCALE



TYPICAL CROSS SECTION OF CASING PIPE

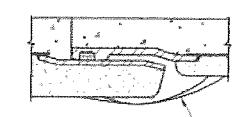
SECTIONS OF INCREASED MORTAR COATING THICKNESS ON PIPE FOR SLIDING RAILS (2-LOCATIONS ON FIRST AND LAST PIPE AND 1-LOCATION ON EACH SUCCESSIVE PIPE) (SEE RAISED MORTAR COATING SKID DETAILS THIS DWG)



LONGITUDINAL SECTION THRU CASING

DETAILS OF PCCP CARRIER PIPE IN CASING PIPE/ FOR VERTICAL LINER (RAISED MORTAR COATING METHOD)

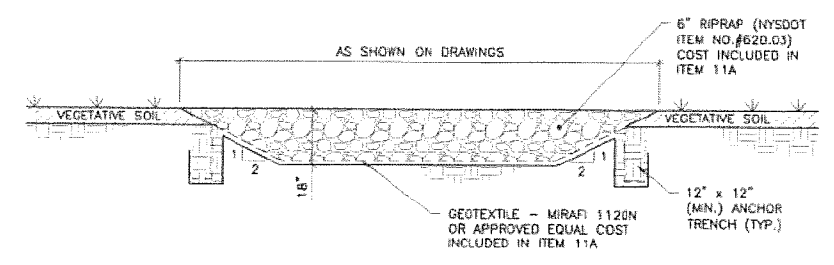
NOT TO SCALE



STANDARD DIAPER TO BE SUPPORTED OVER BOTTOM 270° WITH SHEET METAL OR RUBBER BELTING TO PREVENT DIAPER FROM RUBBING ON INVERT OF CASING PIPE. THIS APPLIES TO ALL JOINT TYPES WHEN GROUTED.

SECTION AT BOTTOM OF JOINT DIAPER

- NOTES:
1. RESTRAINED JOINTS IN CARRIER PIPE WHICH ARE INSIDE CASING SHALL BE INDIVIDUALLY DIAPERED AND GROUTED.
 2. WHEN DIAPERING AND GROUTING OF JOINTS IS USED, THE GROUT MUST NOT SET UNTIL PIPELINE IS IN FINAL POSITION. A RETARDER IN THE GROUT MIX MAY BE NECESSARY TO ACHIEVE THIS.
 3. ALL PCCP PIPE WITHIN CASING TO HAVE DOUBLE GASKETED RESTRAINED JOINTS (TESTABLE JOINTS) SUBJECTED TO LOW PRESSURE (15 PSI) AIR TEST BETWEEN GASKETS PRIOR TO INSERTION INTO CASING. (SEE TESTABLE JOINT DETAIL THIS DWG.)
 4. SEAL CASING ENDS WITH BRICK BULKHEAD (MORTARED) OR APPROVED END SEALS.
 5. ANODE LEAD WIRES TO BE SPLICED TOGETHER IN PARALLEL TO A SINGLE WIRE EXTENDED DIRECTLY UP TO THE TEST STATION TERMINAL BOARD. DO NOT WELD ANODE LEAD WIRE TO THE CASING PIPE. SEE TESTING STATION DETAIL ON SHEET C-11.



RIPRAP CHANNEL

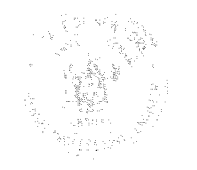
NOT TO SCALE



LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS

SEALS



TOWN OF TONAWANDA, NEW YORK
ERIE COUNTY WATER
AUTHORITY

MP-084:
WATER SYSTEM
IMPROVEMENTS
TRANSMISSION MAIN
INSTALLATION
TOWN OF TONAWANDA

ARCADIS PROJ. NO. 30041728

NO.	DATE	ISSUED FOR	BY
2	2-11-22	ECDOM SUBMITTAL	JS
1	11-2-21	ECDOM SUBMITTAL	JS

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ARCADIS OF NEW YORK, INC.

DATE: MAY 2022
PROJECT NO.: 30041728
FILE NAME: C-12
DESIGNED BY: T. SHAFER
DRAWN BY: H. BASAVA
CHECKED BY: D. SEIDER

SHEET TITLE

GENERAL
MISCELLANEOUS
DETAILS III

SCALE:
NOT TO SCALE

C-12
SHEET 13 OF 16

EXHIBIT "A-13"

GENERAL EROSION CONTROL NOTES:

- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF SPDES GP-0-20-001 AND THE PROJECT'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- THE SWPPP SHALL BE AMENDED AND RE-CERTIFIED BY A LICENSED OR CERTIFIED PROFESSIONAL IF THERE ARE SIGNIFICANT CHANGES IN THE DESIGN OR CONSTRUCTION ACTIVITIES THAT MAY HAVE A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF SEDIMENT OR POLLUTANTS INTO THE WATERS OF THE UNITED STATES, AS SPECIFIED IN THE SWPPP. COSTS ASSOCIATED WITH AMENDING OR THE RE-CERTIFICATION OF THE SWPPP WILL BE INCLUDED IN THE PRICE BID FOR THE EROSION CONTROL ITEMS.
- ALL EROSION AND SEDIMENT CONTROL METHODS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, WHERE THERE ARE INCONSISTENCIES BETWEEN THE REQUIREMENTS OF THE NYSDEC SPECIFICATIONS, NYS STANDARDS AND SPECIFICATIONS, AND THE SWPPP, THE MORE STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
- EROSION CONTROL, GRADING, UTILITY CONSTRUCTION AND ALL OTHER PROPOSED WORK SHALL BE RESTRICTED TO THE LIMITS OF THE SITE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- PAYMENT FOR ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN ITEM NO.1.

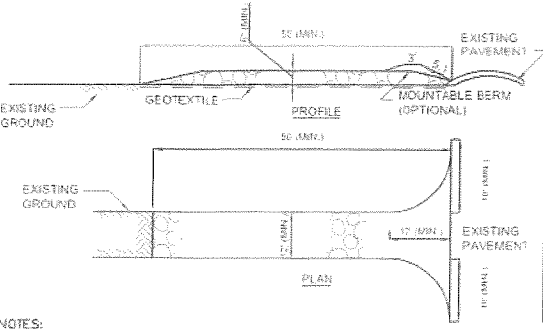
RESTORATION AND STABILIZATION NOTES:

- IN AREAS WHERE FINAL GRADING CREATES RUN-OFF CONCENTRATIONS THAT RETARD STABILIZATION, "JUICE-MESH", SOD, OR ENERGY DISSIPATION, AS APPROVED BY THE QUALIFIED PROFESSIONAL, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR TO ACHIEVE FINAL STABILIZATION. THE CONTRACTOR SHALL INCLUDE THIS SERVICE AT NO EXTRA COST.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT SEED MIXES AND MULCHED, AS SOON AS CONSTRUCTION PRACTICES AND WEATHER PERMITS. DISTURBED AREAS, INCLUDING TOPSOIL STOCKPILES, SHALL NOT REMAIN EXPOSED FOR MORE THAN 14 CONSECUTIVE DAYS AFTER CONSTRUCTION DISTURBANCE ACTIVITIES IN THE AREA HAVE TEMPORARILY OR PERMANENTLY CEASED.
- THE CONTRACTOR SHALL COMPLETE ALL PERMANENT SOIL EROSION CONTROL MEASURES AS SOON AS POSSIBLE AFTER FINAL GRADING (WEATHER PERMITTING) OR UPON COMPLETION OF THE FINAL EARTH DISTURBANCE. IF IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE THE EARTH DISTURBANCE, THEN THE CONTRACTOR SHALL MAINTAIN TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT CONTROL MEASURES ARE IN PLACE AND THE AREA IS STABILIZED.
- FINAL STABILIZATION SHALL MEAN THAT ALL SOIL-DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80 PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES HAVE BEEN EMPLOYED ON ALL PERVIOUS AREAS, AND ALL IMPERVIOUS COVERS HAVE BEEN INSTALLED.
- ALL AREAS DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE RESTORED IN KIND TO THE SATISFACTION OF THE OWNER.
- WHEN RESTORING LAWN AREAS ADJACENT TO NEW CONSTRUCTION, ON-SITE MATERIAL MAY BE USED TO BACKFILL THE AREAS WITHIN FOUR INCHES OF THE NEW FINISHED SURFACE. ON-SITE MATERIAL SHALL BE THOROUGHLY COMPACTED AND FREE OF GRASS CLUMPS, TREE ROOTS, PIECES OF ASPHALT AND OTHER EXTRANEOUS MATERIALS, AND STONES LARGER THAN 1 INCH IN SIZE.
- ALL DISTURBED UNSURFACED AREAS SHALL RECEIVE FOUR INCHES OF TOPSOIL, SEED AND MULCH AND SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- WHEN ADJACENT ASPHALT, CONCRETE OR PAVING STONE AREAS ARE DISTURBED AS PART OF THE CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO REPLACE THE DAMAGED OR EXCAVATED AREA. THE PERIMETER OF THE DISTURBED AREA SHALL BE SAW CUT FULL DEPTH, SO THAT ALL LINES ARE STRAIGHT AND TRUE. PAVING STONES SHALL BE REPLACED IN WHOLE UNITS ONLY, AND ALL REPLACEMENT PAVING STONES ARE TO MATCH THE EXISTING ONES IN SIZE, SHAPE AND COLOR. ASPHALT SHALL BE COMPACTED TO A SMOOTH FINISH AND SHALL BE FLUSH WITH THE EXISTING ADJACENT AREA THAT IS TO REMAIN.
- ADDITIONAL INFORMATION ON RESTORATION CAN BE FOUND IN THE RESTORATION SPECIFICATION TO BE ATTACHED WITH THE SWPPP AND THE BID PACKAGE.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CONSTRUCTION NOTES:

- PRIOR TO ANY DISTURBANCE THE CONTRACTOR SHALL ENSURE THAT A MEETING IS HELD TO ESTABLISH AN APPROVED SEQUENCE OF ACTIVITIES IN ACCORDANCE WITH THE SWPPP AND SUPPORTING DOCUMENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE IDENTIFIED SEQUENCE OF ACTIVITIES IS FOLLOWED.
- STORMWATER DISCHARGES AUTHORIZED BY THE PERMIT SHALL NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS INCLUDING BUT NOT LIMITED TO THESE PROVISIONS:
 - THERE SHALL BE NO INCREASE IN TURBIDITY THAT WILL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS.
 - THERE SHALL BE NO SUSPENDED OR SETTLEABLE SOLIDS THAT WILL CAUSE DEPOSITION OR IMPAIR THE RECEIVING WATERS FOR THEIR BEST USES.
 - THERE SHALL BE NO DISCHARGE OF RESIDUES FROM PETROLEUM PRODUCTS, CHEMICAL PRODUCTS, OR FLOATING STANDSTES.
- DURING CONSTRUCTION, ACTIVE AREAS THAT COULD CONTRIBUTE TO THE EROSION, MIGRATION, AND/OR TRACKING OF SOIL/SEDIMENT PRIOR TO RESTORATION ACTIVITIES WILL BE LIMITED TO NO MORE THAN FIVE (5) ACRES AT ANY ONE TIME, UNLESS AUTHORIZATION IS OBTAINED FROM THE NYSDEC.
- EARTH WORK SHALL BE PERFORMED ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING WEATHER CONDITIONS AND THE WEATHER FORECAST TO DETERMINE IF THE CONDITIONS AT HAND ARE SUITABLE PRIOR TO THE COMMENCEMENT OF WORK EACH DAY. NO EARTHWORK SHALL BE PERMITTED DURING PERIODS OF HEAVY PRECIPITATION.

- THE CONTRACTOR SHALL UTILIZE GOOD HOUSEKEEPING PRACTICES (I.E., MAINTAIN A NEAT AND ORDERLY SITE) SO THAT MISCELLANEOUS CONSTRUCTION DEBRIS DOES NOT IMPACT STORMWATER RUNOFF.
- CLEARING AND GRADING SHALL BE PERFORMED TO MINIMIZE DISTURBANCE OF GROUND COVER. ONLY THE SMALLEST AREA THAT IS PRACTICAL SHALL BE DISTURBED AT ANY ONE TIME.
- THE CONTRACTOR SHALL PRESERVE NATURAL VEGETATION BOTH ON AND OFF THE SITE, UNLESS THE VEGETATION HAS BEEN SPECIFICALLY IDENTIFIED FOR REMOVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST ORIGINATING FROM ITS CONSTRUCTION OPERATIONS TO THE SATISFACTION OF THE OWNER AND SWPPP PROFESSIONAL. THE CONTRACTOR SHALL SUPPLY THE NECESSARY EQUIPMENT AND MATERIALS TO ACCOMPLISH ADEQUATE DUST CONTROL.
- THE CONTRACTOR SHALL PREVENT TRACKING OF SOIL MATERIALS ONTO OFF-SITE AREAS (E.G., PUBLIC ROADS). ANY SOIL MATERIALS ACCIDENTALLY TRACKED OR OTHERWISE SPILLED/DROPPED ONTO OFF-SITE AREAS SHALL BE IMMEDIATELY CLEANED UP.
- THE CONTRACTOR SHALL CONTAIN SEDIMENT-LADEN RUNOFF TO THE WORK AREA AND NOT ALLOW SEDIMENT TO COLLECT ON ANY OFF-SITE AREA OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STORM DRAINS, LAKES, PONDS, AND WETLANDS.
- THESE PLANS, THE SWPPP AND SUPPORTING DOCUMENTS PREPARED BY THE OWNER AND INCORPORATED HEREIN, AND THE SPDES PERMIT, ARE THE MINIMUM ANTICIPATED EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THE DEVELOPMENT AS PROPOSED. ADDITIONAL MEASURES DEEMED NECESSARY DURING CONSTRUCTION BY THE NYSDEC, MUNICIPALITIES, OR THE QUALIFIED PROFESSIONAL, SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR, AT NO EXTRA COST.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL NECESSARY TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AT THE TIME OF CONSTRUCTION. THESE MEASURES SHALL BE MAINTAINED WHENEVER NECESSARY OR AS DIRECTED BY THE QUALIFIED PROFESSIONAL, AND IN ACCORDANCE WITH THE SWPPP, UNTIL FINAL STABILIZATION IS ACHIEVED. THIS MAINTENANCE SHALL BE INCLUDED AT NO EXTRA COST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION AND SEDIMENT CONTROL DEVICES WHEN SPECIFIED BY THE QUALIFIED PROFESSIONAL AT NO EXTRA COST.
- THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN CONSTRUCTION IS COMPLETE AND WHEN FINAL STABILIZATION OF THE AREAS TO BE DISTURBED IS COMPLETE.
- CONTRACTOR SHALL SUPPLY SUBMITTALS TO ENGINEER FOR ALL EROSION CONTROL MEASURES TO BE USED DURING CONSTRUCTION.
- DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY FOR DEFICIENCIES OR REQUIRED MAINTENANCE. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE(S) AND APPROPRIATE CONTRACTORS OF ANY REQUIRED CORRECTIVE ACTIONS WITHIN 1 BUSINESS DAY FOLLOWING THE INSPECTION AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
- DURING CONSTRUCTION ACTIVITIES, A NEW YORK STATE-QUALIFIED INSPECTOR SHALL INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS. THE QUALIFIED INSPECTOR SHALL PREPARE A REPORT IN ACCORDANCE WITH THE REQUIREMENTS OF THE SWPPP. THE QUALIFIED INSPECTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE(S) AND APPROPRIATE CONTRACTORS OF ANY REQUIRED CORRECTIVE ACTIONS WITHIN 1 BUSINESS DAY FOLLOWING THE INSPECTION AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.



NOTES:

- STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - NOT LESS THAN 50 FEET.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
- SEE TABLE 1 FOR STABILIZED CONSTRUCTION ENTRANCE FABRIC REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE

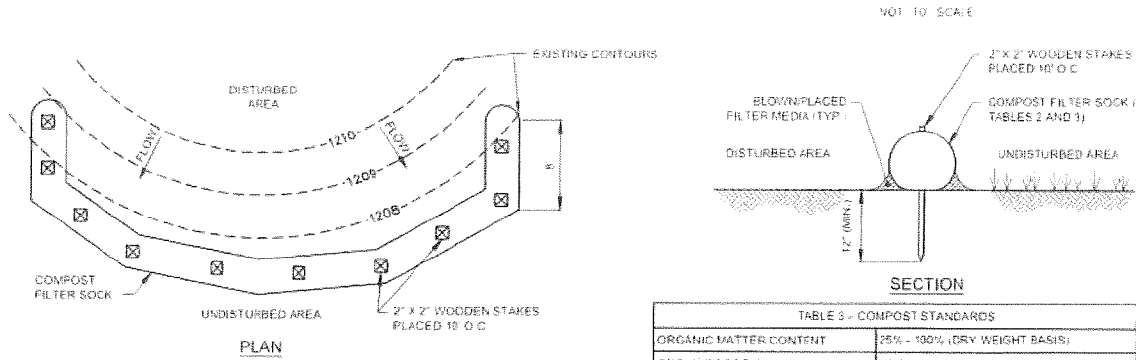


TABLE 1 - COMPOST SOCK MAXIMUM SLOPE LENGTH IN FEET							
DIAMETER (INCHES)	SLOPE (%)						
	2	5	10	20	25	33	50
12	250	225	125	65	50	40	25

TABLE 2 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS	
MATERIAL TYPE	3 MIL HOPE
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE
SOCK DIAMETERS	12"
	18"
MESH OPENING	3/8"
TENSILE STRENGTH	
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	25% AT 1000 HR
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS

TABLE 1 - STABILIZED CONSTRUCTION ENTRANCE FABRIC MINIMUM SPECIFICATIONS		
FABRIC PROPERTIES	HEAVY DUTY HAUL ROADS ROUGH GRADED	TEST METHOD
GRAB TENSILE STRENGTH (LBS)	220	ASTM D 1682
ELONGATION AT FAILURE (%)	60	ASTM D 1682
MULEN BURST STRENGTH (PSI)	430	ASTM D 3786
PUNCTURE STRENGTH (LBS)	125	ASTM D 571 MODIFIED
EQUIVALENT OPENING SIZE	40-60	US STD SIEVE CW-32215
AGGREGATE DEPTH (IN)	10	-
HEAVY DUTY ROAD AREA SITES WITH ONLY ROUGH GRADING AND WHERE MOST TRAVEL WOULD BE MULT-AXLE VEHICLES ACCEPTABLE MATERIALS ARE TREVIRA SPUNBOND 1135 MIRAFI 600X OR EQUIVALENT		
FABRICS NOT MEETING THESE SPECIFICATIONS MAY BE USED ONLY WHEN DESIGN PROCEDURE AND SUPPORTING DOCUMENTATION ARE SUPPLIED TO DETERMINE AGGREGATE DEPTH AND FABRIC STRENGTH		

TABLE 3 - COMPOST STANDARDS	
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	6.0 - 8.0
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	100% PASS THROUGH 1" SIEVE AND 10%-30% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 DSR (MMHGS/CM) MAXIMUM

NOTES:

- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.
- THE FLAT DIMENSION OF THE SOCK SHALL BE AT LEAST 1.5 TIMES THE NOMINAL DIAMETER.
- COMPOST INFILL SHALL BE WELL DECOMPOSED (MATURED AT LEAST 3 MONTHS), WEED-FREE, ORGANIC MATTER. IT SHALL BE AEROBICALLY COMPOSTED, POSSESS NO OBJECTIONABLE ODORS, AND CONTAIN LESS THAN 1% (BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED AS IDENTIFIED IN THE ESDP.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED, OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- CONTRACTOR SHALL ENSURE THAT ACTUAL COMPOST FILTER SOCK DIMENSIONS MEET SPECIFIED DESIGN DIMENSIONS.
- COMPOST FILTER SOCKS PLACED ON HARD SURFACES WHERE STAKE INSTALLATION IS IMPRACTICAL (E.G., ASPHALT, CONCRETE), THE SOCK MAY BE ANCHORED UTILIZING ALTERNATE METHODS SUCH AS CINDER BLOCKS OR SANDBAGS. ALTERNATIVE ANCHORS MUST BE PLACED IN SUFFICIENT NUMBER AND SPACING TO PREVENT THE SOCK FROM SHIFTING OR SEPARATING THE CONTACT BETWEEN THE SOCK AND GROUND SURFACE.

COMPOST FILTER SOCK

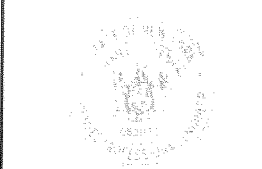
NOT TO SCALE



LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS

SEALS



TOWN OF TONAWANDA, NEW YORK
ERIE COUNTY WATER
AUTHORITY

MP-084:
WATER SYSTEM
IMPROVEMENTS
TRANSMISSION MAIN
INSTALLATION
TOWN OF TONAWANDA

ARCADIS PROJ. NO. 30041729

COPYRIGHT: ARCADIS OF NEW YORK, INC., 2022

DATE: MAY 2022

PROJECT NO.: 30041729

FILE NAME: C-13

DESIGNED BY: M. HIGGINS

DRAWN BY: O. HUNTER

CHECKED BY: D. SEIDER

SHEET TITLE

GENERAL
EROSION AND
SEDIMENT CONTROL
DETAILS I

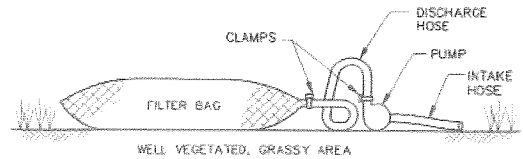
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C-13

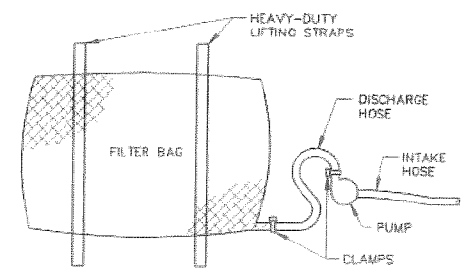
SHEET 14 OF 16

EXHIBIT "A-14"

ARCADIS PROJECT NO. 30041728 - EROSION CONTROL BLANKET (CHANNEL LINING) - SHEET C-14



PROFILE



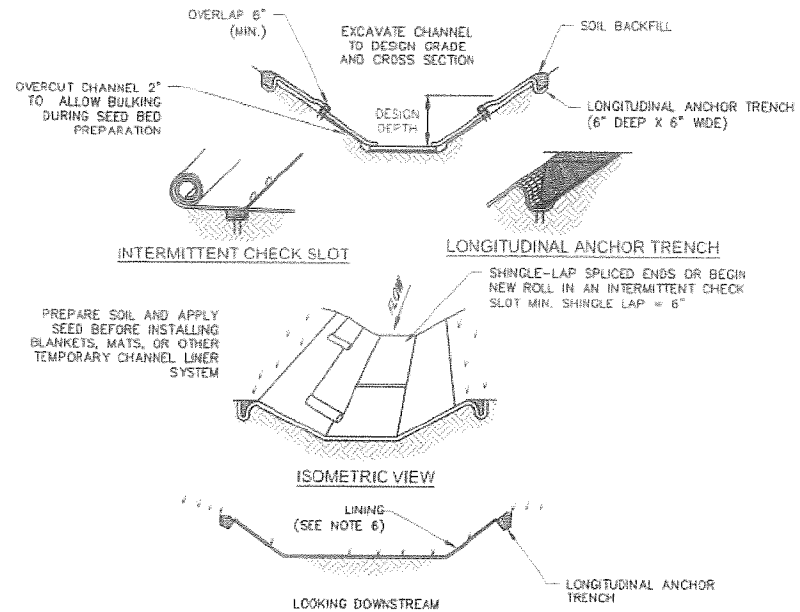
PLAN

NOTES:

1. FILTER BAGS SHALL BE USED AT ALL TIMES WHEN IT IS NECESSARY TO DEWATER EXCAVATED PIPE TRENCH AND BORING AND RECEIVING PITS.
 2. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS; AND SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
 3. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE STANDARDS INCLUDED IN THE TABLE BELOW.
- | PROPERTY | MINIMUM STANDARD |
|-------------------------|------------------|
| ROLL STRENGTH | 100 LB/IN |
| GRAB TENSILE STRENGTH | 200 LB |
| GRAB TENSILE ELONGATION | 50% |
| TRAPEZOID TEAR STRENGTH | 80 LB |
| PUNCTURE | 130 LB |
| MULLEN BURST | 280 PSI |
| UV RESISTANCE | 70% |
| APPARENT OPENING SIZE | 40 - 60 US SIEVE |
| FLOW THRU RATE | 70 GPM/SQ FT |
4. SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY FOR DISPOSAL PURPOSES SHALL BE PROVIDED.
 5. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF-FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
 6. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 7. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY.
 8. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 9. COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
 10. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
 11. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
 12. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

FILTER BAG

NOT TO SCALE

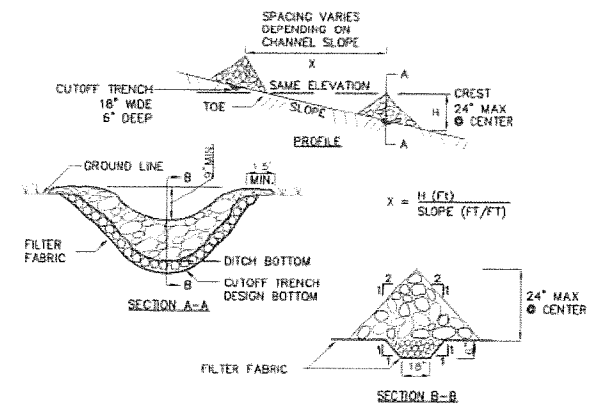


NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS PRIOR TO PLACEMENT OF THE BLANKET.
2. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
3. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 80% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
4. ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.
5. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL.
6. SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES, AND MULCHING INFORMATION.

EROSION CONTROL BLANKET (CHANNEL LINING)

NOT TO SCALE



STONE CHECK DAM NOTES:

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES, AND LOCATIONS SHOWN IN THE PLAN.
2. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.

COMPOST FILTER SOCK CHECK DAM NOTES:

1. COMPOST FILTER SOCK MAY BE UTILIZED AS AN ALTERNATE CHECK DAM MATERIAL PROVIDED THAT THE REQUIREMENTS OF THE GENERAL NOTES AND DIMENSIONS SHOWN ABOVE, AND THE FOLLOWING NOTES, ARE MET.
2. ALL INSTANCES OF "DAM" BELOW REFERS TO A FILTER SOCK DAM.
3. DAMS SHALL BE ANCHORED BY STAKING THE DAM TO THE EARTH CONTACT SURFACE.
4. THE DAM SHALL EXTEND TO THE TOP OF BANK.
5. DAMS SHALL INCLUDE A SPLASH APRON OF NYS DOT #2 CRUSHED STONE THAT EXTENDS A MINIMUM 3 FEET DOWNSTREAM FROM THE DAM AND 1 FOOT UP THE SIDES OF THE CHANNEL.
6. COMPOST AND FILTER SOCK MATERIALS SHALL MEET THE REQUIREMENTS FOR STANDARD COMPOST FILTER SOCK ON DRAWING C-13 (EROSION AND SEDIMENT CONTROL DETAILS I).

GENERAL NOTES:

1. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
2. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
3. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED CHECK DAM MATERIAL.
4. MAXIMUM DRAINAGE AREA 2 ACRES.

CHECK DAM

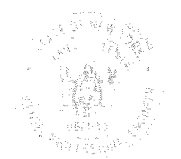
NOT TO SCALE



LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS

SEALS



TOWN OF TONAWANDA, NEW YORK
ERIE COUNTY WATER
AUTHORITY

MP-084:
WATER SYSTEM
IMPROVEMENTS
TRANSMISSION MAIN
INSTALLATION
TOWN OF TONAWANDA

ARCADIS PROJ. NO. 30041728

NO.	DATE	ISSUED FOR	BY
2	2-11-22	ECDOM SUBMITTAL	DJS
1	11-2-21	ECDOM SUBMITTAL	DJS

COPYRIGHT: 2022 ARCADIS OF NEW YORK, INC.

DATE: MAY 2022
PROJECT NO.: 30041728
FILE NAME: C-14
DESIGNED BY: M. HIGGINS
DRAWN BY: O. HUNTER
CHECKED BY: D. SEIDER

SHEET TITLE

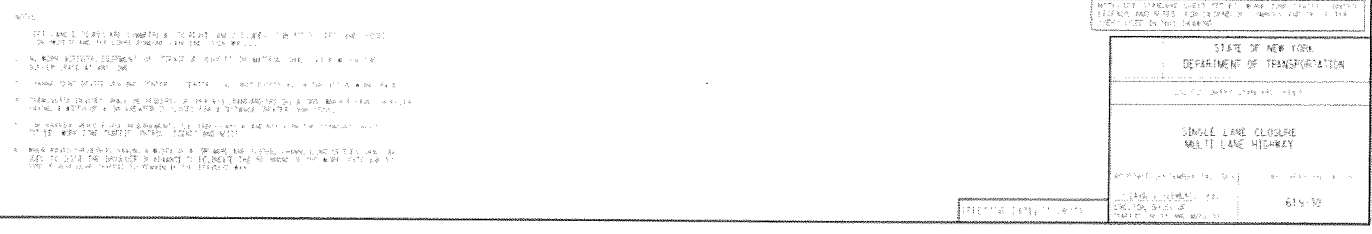
GENERAL

EROSION AND
SEDIMENT CONTROL
DETAILS II

SCALE:
NOT TO SCALE

C-14
SHEET 15 OF 16

EXHIBIT "A-15"



- | | |
|--|-----------------------------------|
| STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION | |
| U.S. CUSTOMARY STANDARD SHEET | |
| WORK ZONE TRAFFIC CONTROL
GENERAL NOTES | |
| APPROVED: 12/15/2010
IN CHARGE: DISTRICT #1
OPERATING OFFICE OF
TRAFFIC SAFETY AND MOBILITY | PROJECT: NEW YORK STATE
619-10 |

EXHIBIT "C" - Insurance Requirements

1. From the commencement of this Agreement, through final expiration or longer where specified below, GRANTEE/LICENSEE shall provide and maintain, at its own expense, insurance policies, intended to be primary (with no right of contribution by any other coverage available to "NMPC, National Grid USA, its direct and indirect parents, subsidiaries, and affiliates (collectively the "Insured Entities")), covering all operations, work and services to be performed under or in connection with this Agreement, issued by reputable insurance companies with an A.M. Best Rating of at least A- or better, which at least meet or exceed the requirements listed herein:

- (a) **Risk of Loss (Equipment/Materials)** – The GRANTEE/LICENSEE shall be responsible for all risk of loss to its personal equipment and materials, and any other equipment and materials owned by its employees or by third parties that may be in their care, custody and control or that of personal property of others that also come on site.
- (b) **Workers' Compensation and Employers Liability Insurance** as required by the State in which the work activities under this Agreement will be performed as the exposure exists. If applicable, coverage shall include the U.S. Longshoreman's and Harbor Workers Compensation Act, and the Jones Act. The employer's liability limit shall be at least \$1,000,000 each per accident, per person disease, and disease by policy limit.

In the event GRANTEE/LICENSEE is a **Sole Proprietor** that is exempt from maintaining Statutory Workers' Compensation/Employer's Liability insurance, Sole Proprietor is required to provide a Letter of Affidavit affirming no employees and are exempt from carrying Workers Compensation and Employer's Liability insurance.

- (c) **Commercial General Liability (CGL) Insurance**, covering all operations to be performed by or on behalf of GRANTEE/LICENSEE under or in connection with this Agreement, with minimum limits of:

Combined Single Limit	- \$1,000,000 per occurrence
General Aggregate & Product Aggregate	- \$2,000,000 each

- Coverage shall include: contractual liability (with this Agreement being included under the definition of "Insured Contract" thereunder), products/completed operations, and if applicable, explosion, collapse and underground (XC&U).
- If the products-completed operations coverage is written on a claims-made basis, the retroactive date shall not precede the effective date of this Agreement and coverage shall be maintained continuously for the duration of this Agreement and for at least three years thereafter.
- Additional Insured as required in Section 3 below.
- The policy shall contain a separation of insureds condition.

- (d) **Automobile Liability**, covering all owned, non-owned and hired vehicles used in connection with all operations, work or services to be performed by or on behalf of GRANTEE/LICENSEE under or in connection with this Agreement with minimum limits of:

Combined Single Limit - \$1,000,000 per occurrence

Additional Insured as required in Section 3 below.

- (e) **Umbrella Liability or Excess Liability** coverage, with a minimum per occurrence limit of \$2,000,000. This coverage shall run concurrent to the CGL required in Section 1(c) above, shall apply excess of the required CGL, automobile and employer's liability coverages required in this Insurance Exhibit; and shall provide additional insured status as outlined in Section 3 below.

(e) **Limits:** Any combination of Commercial General Liability, Automobile Liability and Umbrella Liability policy limits can be used to satisfy the limit requirements in Sections 1(c), (d), and (e) above.

2. **Self-Insurance:** Proof of qualification as a qualified self-insurer, if approved in advance in writing by NMPC's insurance representative, will be acceptable in lieu of securing and maintaining one or more of the coverages required in this Insurance Exhibit. Such acceptance shall become a part of this insurance provision by reference herein.

For Workers' Compensation, such evidence shall consist of a copy of a current self-insured certificate for the State in which the work will be performed.

3. **Additional Insured:** The intent of the Additional Insured requirement under the CGL, Auto and Umbrella/Excess policies is to include the Insured Entities, their directors, officers and employees, and other associates as Additional Insureds for liabilities associated with, or arising out of, all operations, work or services to be performed by or on behalf of GRANTEE/LICENSEE under this Agreement. The following language should be used when referencing the additional insured status: "**National Grid USA, its direct and indirect parents, subsidiaries and affiliates shall be named as additional insured.**"

To the extent GRANTEE/LICENSEE insurance coverage does not provide the full Additional Insured coverage as required herein, GRANTEE/LICENSEE agree to indemnify and hold harmless such Insured Entities against any and all liability resulting from any deficiency in GRANTEE/LICENSEE insurance coverage that may be out of compliance with this insurance requirement.

4. **Waiver of Subrogation/Recovery:** GRANTEE/LICENSEE and its insurance carrier(s) shall waive all rights of subrogation/recovery against the Insured Entities and their directors, officers and employees, and other associates for any loss or damage covered under those policies referenced in this insurance provision, or for any required coverage that may be self-insured by GRANTEE/LICENSEE. To the extent GRANTEE/LICENSEE insurance carriers will not waive their right of subrogation against the Insured Entities, GRANTEE/LICENSEE agrees to indemnify the Insured Entities for any subrogation activities pursued against them by GRANTEE/LICENSEE insurance carriers. This waiver, however, shall not extend to the gross negligence or willful misconduct of NMPC or their employees, sub-contractors or agents.
5. **Contractors:** In the event GRANTEE/LICENSEE uses Contractors in connection with this Agreement, it is expressly agreed that GRANTEE/LICENSEE shall have the sole responsibility to make certain that all Contractors are compliant with the insurance requirements and remain in compliance throughout the course of this Agreement, and thereafter as required. GRANTEE/LICENSEE shall remain liable for the performance of the Contractor, and such sub-contract relationship shall not relieve GRANTEE/LICENSEE of its obligations under this Agreement.

Unless agreed to in writing by the Risk & Insurance Department of NMPC, any deductible or self-insured retentions maintained by any Contractor, which shall be for the account of the Contractor, shall not exceed \$100,000. In addition, Contractor shall name both the GRANTEE/LICENSEE and National Grid USA, its direct and indirect parents, subsidiaries and affiliates as additional insureds under the Commercial General Liability, Automobile, Umbrella/Excess Liability and Contractors Pollution Liability coverages, and provide a waiver of subrogation under all required policies in favor of such additional insureds. If requested by NMPC, GRANTEE/LICENSEE shall furnish insurance documentation from its Contractor evidencing these coverages.

In the event any Contractor is unable to maintain all of the same insurance coverage as required in this Insurance Exhibit, GRANTEE/LICENSEE agree to indemnify and hold the Insured Entities harmless against any and all liability resulting from any deficiency in Contractor's insurance coverage that may be out of compliance with these insurance requirements.

6. **Insurance Certification:** Upon execution of this Agreement, GRANTEE/LICENSEE shall promptly provide NMPC with **Certificate(s) of Insurance, and when requested, endorsements** for all coverages required herein at the following address:

Pamela Aspinall @ National Grid
300 Erie Blvd west
Syracuse, NY 13202

Such certificates, and any renewals or extensions thereof, shall outline the amount of deductibles or self-insured retentions which shall be for the account of GRANTEE/LICENSEE. Such deductibles or self-insured retentions shall not exceed \$100,000 unless agreed to in writing by the Risk & Insurance Department of NMPC, whose approval shall not be unreasonably withheld, delayed or conditioned. GRANTEE/LICENSEE shall provide NMPC with at least thirty (30) days prior written notice of any cancellation or diminution of the insurance coverage required in this Insurance Exhibit.

7. **Insurance Obligation:** If any insurance coverage is not secured, maintained or is cancelled and GRANTEE/LICENSEE fail immediately to procure other insurance as specified, NMPC has the right, but not the obligation, to procure such insurance and to invoice GRANTEE/LICENSEE for said coverage.
8. **Incident Reports:** GRANTEE/LICENSEE shall furnish the Risk & Insurance Department of NMPC, with copies of accident or incident report(s)(collectively, the "Documents") sent to GRANTEE/LICENSEE insurance carriers covering accidents, incidents or events occurring as a result of the performance of all operations, work and services to be performed by or on behalf of GRANTEE/LICENSEE under or in connection with this Agreement, excluding any accidents or incidents occurring on GRANTEE/LICENSEE property. If any of the National Grid Companies, including NMPC are named in a lawsuit involving the operations and activities of GRANTEE/LICENSEE associated with this Agreement, GRANTEE/LICENSEE shall promptly provide copies of all insurance policies relevant to this accident or incident when requested.
9. **Other Coverage:** These requirements are in addition to any which may be required elsewhere in this Agreement. In addition, GRANTEE/LICENSEE shall comply with any governmental site-specific insurance requirements even if not stated herein.
10. **Coverage Representation:** GRANTEE/LICENSEE represent that it has the required policy limits available and shall notify NMPC's Risk & Insurance Department in writing when the minimum coverages required in this Insurance Exhibit herein have been reduced as a result of claims payments, expenses, or both. This obligation, however, does not apply to any claims that would be handled solely within GRANTEE/LICENSEE deductible or self-insured retention.
11. **Responsibility:** The complete or partial failure of the GRANTEE/LICENSEE insurance carrier to fully protect and indemnify the Insured Entities per the terms of this Agreement, including without limitation, this Insurance Exhibit, or the inadequacy of the insurance shall not in any way lessen or affect the obligations of the GRANTEE/LICENSEE to the Insured Entities.
12. **Coverage Limitation:** Nothing contained in this Insurance Exhibit is to be construed as limiting the extent of the GRANTEE/LICENSEE responsibility for payment of damages resulting from all operations, work and services to be performed by or on behalf of GRANTEE/LICENSEE under or in connection with this Agreement, or limiting, diminishing, or waiving GRANTEE/LICENSEE obligation to indemnify, defend, and save harmless the Insured Entities in accordance with this Agreement.



ERIECOU-03

TLANZA

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/23/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 1009544 Lawley, LLC 361 Delaware Avenue Buffalo, NY 14202	CONTACT NAME: Tania Lanza	
	PHONE (A/C, No, Ext): (716) 849-1546 1546 FAX (A/C, No): (716) 849-8291	
	E-MAIL ADDRESS: tlanza@lawleyinsurance.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Philadelphia Indemnity Ins Co	18058
INSURED Erie County Water Authority 295 Main St Suite #350 Buffalo, NY 14203-2494	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	PHPK2434044	7/1/2022	7/1/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ 3,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	PHPK2434044	7/1/2022	7/1/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			PHUB821880	7/1/2022	7/1/2023	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below		N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Insured and Waiver of Subrogation coverage shown above and marked with an X.

Terms set forth as evidenced by the attached endorsement(s) identified on the ACORD 101

SEE ATTACHED ACORD 101

CERTIFICATE HOLDER

CANCELLATION

Niagara Mohawk Power Corporation
144 Kensington Avenue
Buffalo, NY 14214

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



ADDITIONAL REMARKS SCHEDULE

AGENCY Lawley, LLC		License # 1009544	NAMED INSURED Erie County Water Authority 295 Main St Suite #350 Buffalo, NY 14203-2494
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:

When required by executed written contract, the following endorsements apply:

General Liability:

CG20 26 04 13 - Additional Insured - Designated Person or Organization
PI-GL-005 (07/12) - Additional Insured Primary and Non-Contributory Insurance
CG 24 04 05 09 - Waiver of Transfer of Rights of Recovery Against Others to Us

Automobile Liability:

CA0444 03 10 - Waiver of Transfer of Rights of Recovery Against Others To Us
PI-CA-003 (04/13) - Blanket Additional Insured

Excess Liability:

PI-WDI-101 (10/17) Commercial Excess Liability Coverage Form Water Districts Insurance Program

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

***** 166000337
LAWLEY LLC
361 DELAWARE AVE STE 200
BUFFALO NY 14202



SCAN TO VALIDATE
AND SUBSCRIBE

POLICYHOLDER ERIE COUNTY WATER AUTHORITY 295 MAIN STREET, ROOM 350 BUFFALO NY 142032494		CERTIFICATE HOLDER NIAGARA MOHAWK CORPORATION 144 KENSINGTON AVE BUFFALO NY 14214	
POLICY NUMBER B2009 327-4	CERTIFICATE NUMBER 357417	POLICY PERIOD 07/01/2022 TO 07/01/2023	DATE 5/23/2023

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 2009 327-4, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW, AND, WITH RESPECT TO OPERATIONS OUTSIDE OF NEW YORK, TO THE POLICYHOLDER'S REGULAR NEW YORK STATE EMPLOYEES ONLY.

IF YOU WISH TO RECEIVE NOTIFICATIONS REGARDING SAID POLICY, INCLUDING ANY NOTIFICATION OF CANCELLATIONS, OR TO VALIDATE THIS CERTIFICATE, VISIT OUR WEBSITE AT [HTTPS://WWW.NYSIF.COM/CERT/CERTVAL.ASP](https://www.nysif.com/cert/certval.asp). THE NEW YORK STATE INSURANCE FUND IS NOT LIABLE IN THE EVENT OF FAILURE TO GIVE SUCH NOTIFICATIONS.

THE POLICY INCLUDES A WAIVER OF SUBROGATION ENDORSEMENT UNDER WHICH NYSIF AGREES TO WAIVE ITS RIGHT OF SUBROGATION TO BRING AN ACTION AGAINST THE CERTIFICATE HOLDER TO RECOVER AMOUNTS WE PAID IN WORKERS' COMPENSATION AND/OR MEDICAL BENEFITS TO OR ON BEHALF OF AN EMPLOYEE OF OUR INSURED IN THE EVENT THAT, PRIOR TO THE DATE OF THE ACCIDENT, THE CERTIFICATE HOLDER HAS ENTERED INTO A WRITTEN CONTRACT WITH OUR INSURED THAT REQUIRES THAT SUCH RIGHT OF SUBROGATION BE WAIVED.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND



DIRECTOR, INSURANCE FUND UNDERWRITING

VALIDATION NUMBER: 745858217