



ERIE COUNTY WATER AUTHORITY
INTEROFFICE MEMORANDUM

May 13, 2024

To: Terrence D. McCracken, Secretary to the Authority

From: Adam R. Massaro, Distribution Engineer *ARM*

Subject: Research Pkwy
ECWA File No.: CLTN-736-2402
ECWA Project No.: 202400077

Legal has prepared an agreement for a Main Extension by Special Agreement between the Authority and 4280 Research Parkway LLC, (Owner) and Kulback's Inc., (Contractor), for a main extension along Research Pkwy., in the Town of Clarence. The proposed drawings were reviewed by the Engineering Department and approved by the Executive Engineer for the installation of 80 +/- LF of 8-inch PVC water main, 78 +/- LF of 8-inch PVC private fire protection service, and 10 +/- LF of 2-inch Type "K" copper for domestic service, along Research Pkwy., Town of Clarence.

Attached is a copy of the agreement for the Board to approve and the Chairman to execute.

ARM:jmf
Attachment
cc: L.Kowalski

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

Contract: CLTN-736-2402

Project No.: 202400077

Project Description: Install approx. 80 +/- LF of 8" PVC water main, 78 +/- LF OF 8" PVC private fire service, 10 +/- LF of 2" type "K" copper domestic service and all necessary material for the complete installation of Research Pkwy, Town of Clarence

Item Description:



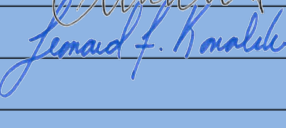


- | | | | |
|---|--|---|---------------------------------------|
| <input checked="" type="checkbox"/> Agreement | <input type="checkbox"/> Professional Service Contract | <input type="checkbox"/> Amendment | <input type="checkbox"/> Change Order |
| <input type="checkbox"/> BCD | <input type="checkbox"/> NYSDOT Agreement | <input type="checkbox"/> Contract Documents | <input type="checkbox"/> Addendum |
| <input type="checkbox"/> Recommendation for Award of Contract | <input type="checkbox"/> Recommendation to Reject Bids | | |
| <input type="checkbox"/> Request for Proposals | | | |
| <input type="checkbox"/> Other _____ | | | |

Action Requested:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Board Authorization to Execute | <input type="checkbox"/> Legal Approval |
| <input type="checkbox"/> Board Authorization to Award | <input checked="" type="checkbox"/> Execution by the Chairman |
| <input type="checkbox"/> Board Authorization to Advertise for Bids | <input type="checkbox"/> Execution by the Secretary to the Authority |
| <input type="checkbox"/> Board Authorization to Solicit Request for Proposals | |
| <input type="checkbox"/> Other _____ | |

Approvals Needed:

APPROVED AS TO CONTENT:

- | | | |
|---|---|-------------------------|
| <input checked="" type="checkbox"/> Sr. Distribution Engineer |  | Date: <u>5/13/2024</u> |
| <input checked="" type="checkbox"/> Chief Operating Officer |  | Date: <u>05/13/2024</u> |
| <input checked="" type="checkbox"/> Executive Engineer |  | Date: <u>5/13/2024</u> |
| <input type="checkbox"/> Director of Administration | _____ | Date: _____ |
| <input type="checkbox"/> Risk Manager | _____ | Date: _____ |
| <input checked="" type="checkbox"/> Chief Financial Officer |  | Date: <u>05/13/2024</u> |
| <input checked="" type="checkbox"/> Legal |  | Date: <u>5/13/2024</u> |

APPROVED FOR BOARD RESOLUTION:

- | | | |
|--|--|------------------------|
| <input checked="" type="checkbox"/> Secretary to the Authority |  | Date: <u>5/13/2024</u> |
|--|--|------------------------|

Remarks: EC 7411

Resolution Date: _____

Item No: _____

**ERIE COUNTY WATER AUTHORITY
MAIN EXTENSION SPECIAL AGREEMENT**

The **ERIE COUNTY WATER AUTHORITY**, a public benefit corporation created and existing under the laws of the State of New York, with its principal office at 295 Main Street, Room 350, Buffalo, New York, 14203, hereinafter called the “Authority”, and **4280 RESEARCH PARKWAY LLC**, 9850 Main Street, Clarence, New York 14031, (hereinafter “Owner Applicant”) and **KULBACK’S INC.**, 2 Wendling Court, Lancaster, New York 14086 [Contractor Address], (hereinafter “Contractor Applicant,” collectively with Owner Applicant as “Applicants”). The Applicants agree as follows:

1. This Agreement is made pursuant to Subdivision 10, Section 1054 of the Public Authorities Law and Title 10.00, “Extensions of Mains” of the Authority’s Tariff.
2. The Applicants desire to install water mains, hydrants and appurtenances as follows:

INSTALL approximately 80 +/- linear feet of 8-inch PVC water main along Research Parkway, Town of Clarence, under an Erie County Water Authority Main Extension Special Agreement.

INSTALL one (1) line valve along Research Parkway, Town of Clarence, under an Erie County Water Authority Special Agreement.

INSTALL approximately 78 +/- linear feet of 8-inch PVC for fire protection service and approximately 10 +/- linear feet of 2-inch copper for domestic services to 4280 Research Parkway, Town of Clarence, under an Erie County Water Authority Main Extension Special Agreement.

Research Parkway

BEGINNING at the end of the existing watermain along Research Parkway, at station -1 +50.4, thence northerly a distance of approximately 80 +/- linear feet within the existing right-of-way of Research Parkway, ending with blow-off at station 0+73.3.

Service Connection at 4280 Research Parkway

BEGINNING at approximate station -0+76.9 along Research Parkway, thence westerly a distance of approximately 78 +/- linear feet crossing Research Parkway, ending with an 8-inch gate service valve at the western right-of-way of Research Parkway.

AS SHOWN and noted on Metzger Engineering’s drawing of Research Parkway, Town of Clarence dated April 15, 2024.

3. The Applicants must be business entities registered with the New York Secretary of State to do business in the State of New York.

4. Prior to beginning installation of the water mains, hydrants and appurtenances, Applicants shall provide the Authority with the following:
 - a. Names of all sub-contractors, if any, who will be installing water mains and appurtenances;
 - b. Shop drawings showing that all materials used in the construction of the water mains and appurtenances meet the Authority's specifications;
 - c. Name of engineer who will do the full-time inspection;
 - d. Five (5) days advance written notice of the starting date of construction;
5. The Applicants shall arrange for water samples and bacterial tests to be taken and tested by an approved laboratory. The results shall be submitted to the Erie County Health Department for approval, and if all tests are satisfactory, the County Health Department shall submit a Certificate of Acceptance to the Authority.
6. Authority personnel shall direct the operation of valves on existing water mains during the required leakage and pressure tests and the disinfection of the water mains and appurtenances. If the mains and appurtenances should fail the pressure or leakage tests, the necessary corrective measures shall be taken, and the tests repeated until satisfactory results are obtained. Upon completion of these tests, the mains shall be shut off and not placed into service until the County Health Department issues a Certificate of Acceptance, all legal and administrative requirements have been satisfied, and the work has been accepted by resolution of the Authority. The Authority will then turn on the mains, which have been accepted by the Authority, and service can begin.
7. Within four (4) weeks of the date the Erie County Health Department Certificate of Acceptance is received, and prior to both acceptance by the Authority and the date water service is begun, Applicants shall have the Contractor Applicant provide the Authority with the following:
 - a. Maintenance bond.
 - (1) A maintenance bond in form satisfactory to the Authority and issued by a carrier satisfactory to the Authority in an amount of one hundred (100%) percent of the actual construction cost of the water mains and appurtenances.
 - (2) Said bond shall cover a period of twenty-four (24) months following the completion of the installation of water mains and appurtenances. During this 24-month period, the Contractor Applicant agrees to maintain and repair the water mains and appurtenances accepted by the resolution of the Authority.
 - (3) The completion date shall be established as the date of the acceptance

of the work by resolution of the Authority.

(4) If the Contractor Applicant defaults on its/his/her obligation, the Authority may seek to recover the cost of maintenance and repair from the carrier/surety of the maintenance bond.

b. Payment bond.

(1) A payment bond in form satisfactory to the Authority and issued by a carrier satisfactory to the Authority in an amount of one hundred (100%) percent of the actual construction cost of the water mains and appurtenances.

(2) The Contractor Applicant will provide said payment bond to insure all labor and materials supplied for the construction and installation of the water mains and appurtenances have been fully paid, ensuring the Authority accepts such water mains and appurtenances without liens or encumbrances.

(3) Said bond shall cover a period of twelve (12) months following completion of the installation of water mains and appurtenances.

(4) The completion date shall be established as the date of acceptance of the work by resolution of the Authority.

c. The Authority may review and verify the actual construction cost of the mains and appurtenances. The actual cost will be used to determine the amount of the maintenance and payment bonds mentioned above, and for all other legal and administrative purposes. The actual cost shall include the furnishing and installing of the pipe, valves, hydrants, paving and other appurtenances required to be completed before the work is accepted by resolution of the Authority.

d. A statement, signed and sealed by the Applicants' engineer, that all work involved in the installation of water mains and appurtenances was completed in accordance with drawings approved by the Authority and in accordance with the Authority's specifications, that all valves, hydrants and appurtenances are in satisfactory operating condition and that the Applicants' engineer provided full time resident inspection of the work.

d. One (1) reproducible and electronic file AutoCad 2000 version on CD Rom or diskette record drawing, to a scale determined by the Authority, showing the constructed location of all mains with at least three readily identifiable ties to all fittings, valves and services. The record drawing shall be marked "As-Built" and bear the seal and license number of the Applicants' engineer. The Applicants' engineer shall certify by seal and signature that he has measured or has supervised the measurement of all dimensions shown on the "As-Built" drawing.

- e. A cost estimate and bill of sale to the Authority for the water mains and appurtenances installed. A completed "Schedule of Inventory" shall be attached to bill of sale on the form provided by the Authority.
8. The Applicants shall notify the Authority when service is desired so that a meter can be installed. Meter installation will be in accordance with the provisions of Section 6.00 of the Authority's Tariff.
9. At the completion of all the work, labor and service as well as installation of all materials and after all the conditions hereinabove set forth are complied with to the satisfaction of the Authority, the Authority agrees to accept said water mains, hydrants, services, and other appurtenances.
10. Title to all water mains, hydrants, services, and appurtenances shall vest in the Authority and the Authority shall provide service to Applicants in the same manner as if the mains were originally installed by the Authority.
11. The Authority reserves the right at any time, without notice to shut off the water in its mains to make repairs, extensions or for other purposes, and it is expressly agreed that the Authority shall not be liable for deficiency or failure in the supply of water, water pressure or for any damage caused thereby or by the bursting or breaking of any main or service pipe or any attachment to the Authority's property, other than through the gross negligence of the Authority. All customers having boilers, hot water heaters, interior piping, etc. upon their premises depending upon the pressure in the Authority's pipes to keep them supplied are cautioned against danger of collapse or bursting and all such damage shall be borne exclusively by the customers.
12. In the interest of public health, the Authority will not permit its mains or services to be connected with any service pipe or piping which is connected with any source of water supply not approved by the Department of Health in the State of New York. In conformance with Part 5 of the New York State Sanitary Code, the Authority has implemented a Cross Connection Control Program and shall not permit its mains or service pipes to be connected in any way to any piping, tank, vat or other apparatus which contains liquids, chemicals, or any other matter which might flow back into the Authority's service pipe or mains and consequently endanger the water supply without the installation of a proper backflow prevention device as specified by the New York State Department of Health, at a location approved by the Authority. In conformance with Part 5 of the New York State Sanitary Code, the Customer shall install a backflow prevention device when required by the Authority.
13. It is mutually understood and agreed:
 - a. The mains laid or to be laid pursuant to this Agreement shall be and remain the property of the Authority, its successors and assigns, and the Authority retains and shall have the right to extend any mains installed by it pursuant

to the terms of the Agreement in or to other lands, streets or avenues, but Applicants shall not by reason thereof be entitled to any repayment.

- b. The water main and/or connection installed are to be used for only fire and domestic purposes and are to have no connection with any source of water supply not approved by the Department of Health of the State of New York, and the Erie County Water Authority.
 - c. Any authorized representative of the Authority shall have free access to the premises of the Applicants at any reasonable time for the purpose of reading the meter or inspecting said construction.
 - d. The Applicants agree to notify the Authority at the time of all tests, so that, if desired, the Authority may have a representative present. Such notification, however, need not be formal and written, but may be given by telephone to the principal office and place of business of the Authority.
 - e. Violation by the Applicants of any of the conditions of this Agreement or of the Authority's rules, and so forth, shall terminate the same and the Authority may disconnect the pipe or shut off the supply of water.
 - f. The Owner Applicant agrees to pay for services rendered under this Agreement the rates and charges under terms set forth in Service Classification No. 1 of the Authority's Tariff. If at any time the Owner Applicant elects to change the terms of this Agreement with respect to size of connection, this Agreement shall be modified accordingly, or a new Agreement shall be executed. The charges set forth in Service Classification No.1 of the Authority are subject to change from time to time as rates may be modified.
 - g. Water through this connection and/or hydrants is to be supplied subject to the rights of public authorities to use water in the street mains through hydrants for fire purposes.
 - h. Only a town, village or legally constituted water district is permitted to resell water supplied by the Authority except as provided in Section 11.05 of the Authority's Tariff.
 - i. Water Service may be disconnected for any of the reasons enumerated in the Authority's Tariff.
 - j. This extension shall be made in accordance with provisions of the Authority's Tariff.
14. This Main Extension Special Agreement constitutes the entire Agreement between the parties and supersedes all prior or other agreements and representations, oral or in writing. Neither this Agreement nor any terms, covenant, provision or condition may be changed, waived, discharged or terminated orally or in any manner other

than an instrument in writing executed and acknowledged by the party against whom the enforcement of the change, waiver, discharge or termination is sought.

- 15. All the terms, covenants, provisions, conditions and agreements hereinabove set forth or provided for shall be binding upon and ensure to the benefit of the parties hereto and their respective heirs, distributees, executors, administrators, successors and assigns.
- 16. The effective date of this Agreement is May 23, 2024.
- 17. The Owner Applicant and Contractor Applicant must sign, execute and return this Agreement to the **Erie County Water Authority, Attn: Legal Department, 295 Main Street, Room 350, Buffalo, New York 14203** within six months of its effective date. If the Legal Department does not receive a fully executed Agreement within this six-month period, the Agreement will be considered null and void.

IN WITNESS WHEREOF, the parties acknowledge the terms and conditions of this Agreement and have duly caused their seals to be hereunto affixed and these presents to be signed by their duly authorized officers.

4280 RESEARCH PARKWAY LLC

PAUL STEPHEN, President

KULBACK'S INC.

THOMAS BARRETT, President

ERIE COUNTY WATER AUTHORITY

JEROME D. SCHAD, Chair

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

On this _____ day of _____, 2024, before me personally came PAUL STEPHEN, to me known, who being by me duly sworn, did depose and say that he resides at _____; that he is President of 4280 RESEARCH PARKWAY LLC, the company described in, and which executed, the foregoing instrument; and acknowledged to me that he executed the same in his capacity as President of the company described in the above instrument, that by his signature he executed the instrument, and that he made such appearance before the undersigned.

Notary Public - State of New York

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

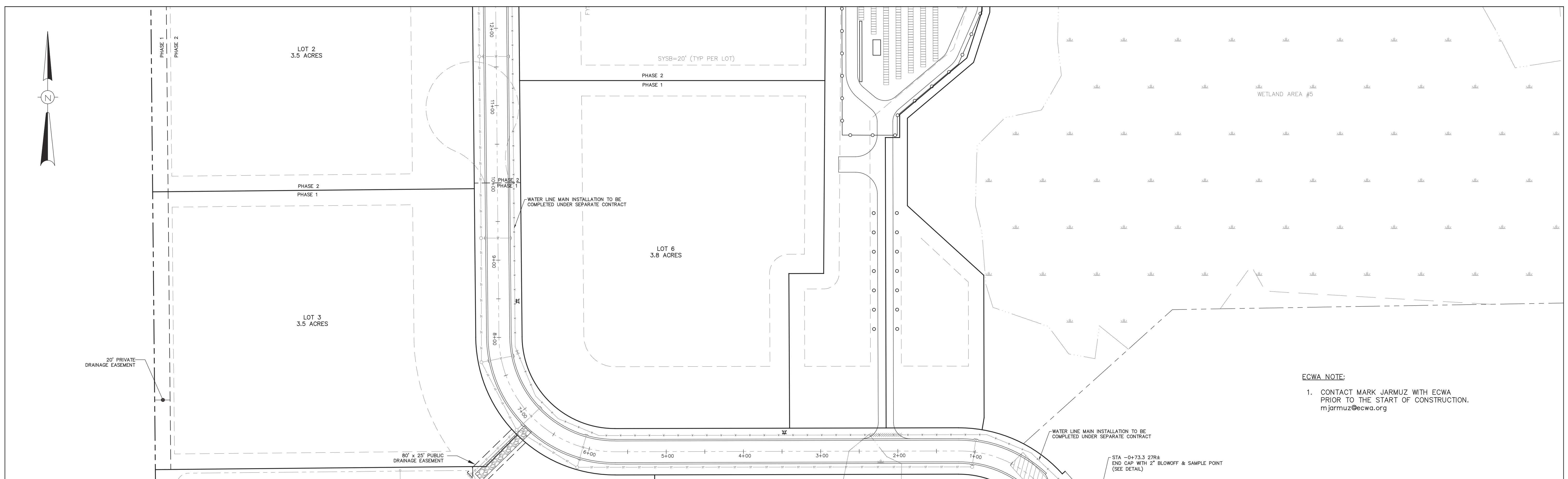
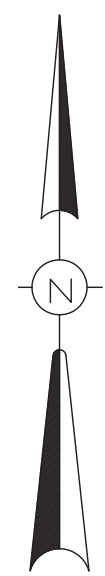
On this _____ day of _____, 2024, before me personally came THOMAS BARRETT, to me known, who being by me duly sworn, did depose and say that he resides at _____; that he is President of KULBACK'S INC. the corporation described in, and which executed, the foregoing instrument; that he knows the seal of 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.

Notary Public - State of New York

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

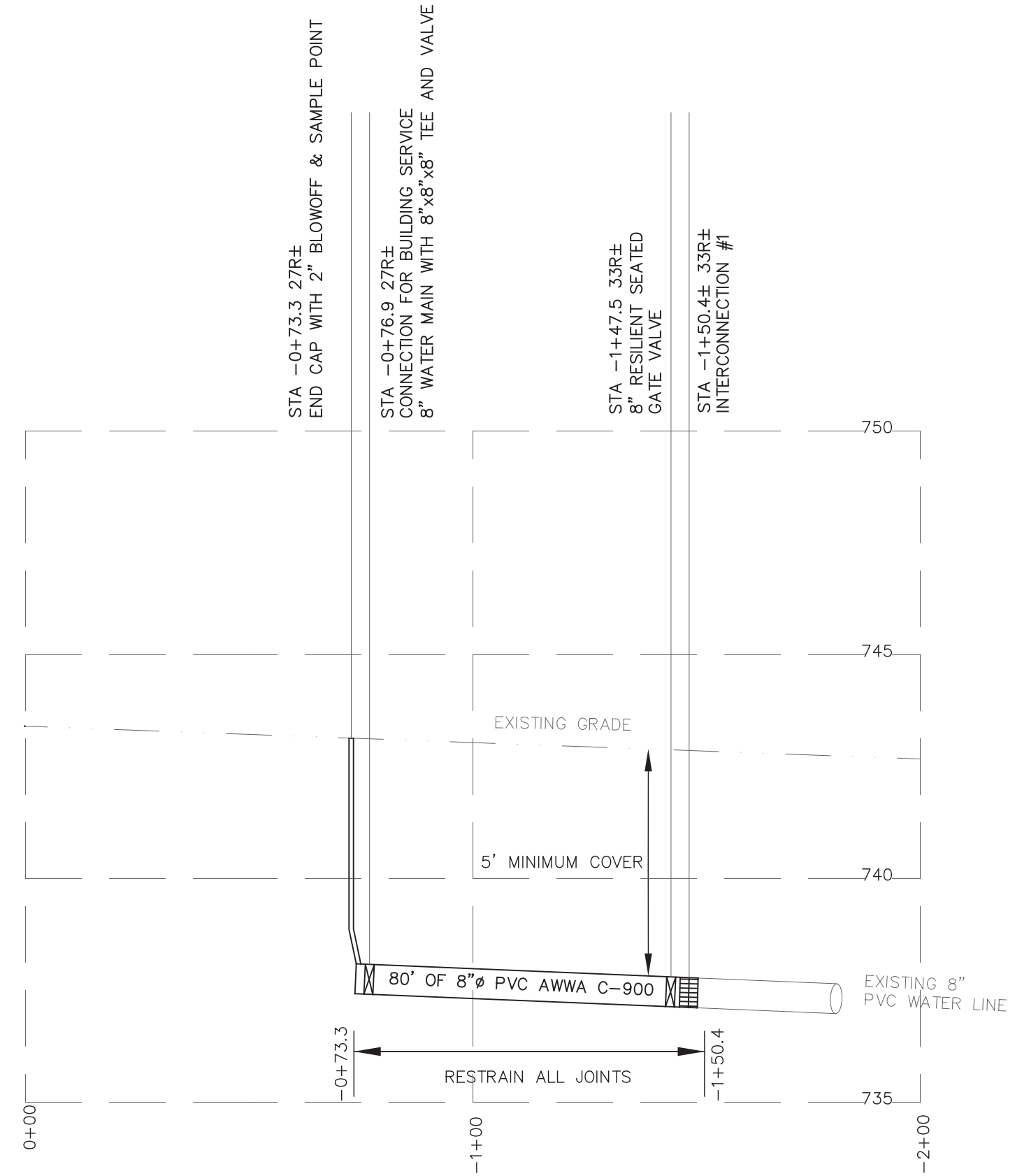
On this ____ day of _____, 2024, before me personally came JEROME D. SCHAD, to me known, who being by me duly sworn did depose and say that he resides in Amherst, New York, that he is the Chairman of the ERIE COUNTY WATER AUTHORITY, the corporation named in the foregoing indenture; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by a duly adopted resolution of the said Authority and that he signed his name thereto by like resolution.

Notary Public - State of New York



ECWA NOTE:
 1. CONTACT MARK JARMUZ WITH ECWA PRIOR TO THE START OF CONSTRUCTION.
 m.jarmuz@ecwa.org

WATERLINE PROFILE
 RESEARCH PARKWAY
 STA 0+00 TO -2+00
 NOT TO SCALE



DIRECT SERVICE WATER DISTRICTS

APPROVED () APPROVED AS CORRECTED (X)
 NOT APPROVED () REVISE AND RESUBMIT ()

CHECKING OF THE DRAWINGS BY THE AUTHORITY ENGINEERS IS ONLY FOR THE PURPOSE OF ASCERTAINING COMPLIANCE WITH THE PHYSICAL ASPECTS OF GOOD WATER WORKS PRACTICES AND WITH CURRENT DISTRIBUTION SYSTEMS PLANNING.

ERIE COUNTY WATER AUTHORITY

BY *Jenard L. Kozlowski* DATE **4/29/2024**

THIS APPROVAL EXPIRES THREE YEARS FROM THE DATE OF APPROVAL

NOTES:
 1) BASED ON BOUNDARY SURVEY AND TOPOGRAPHY SURVEY BY NUSSBAUMER AND CLARKE DATED SEPTEMBER 22, 2023. THIS IS NOT A PROPERTY SURVEY.

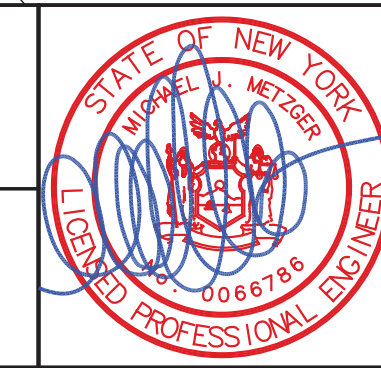
DESIGNED BY:	JCM
DRAWN BY:	JCM
CHECKED BY:	ARH
CAD FILE:	M2121
NOTE:	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW

ECWA COMMENTS	04.19.24	JCM/ARH
REVISIONS	DATE	BY/CHK

MCE METZGER CIVIL ENGINEERING, PLLC

8245 SHERIDAN DR.
 WILLIAMSVILLE, NY 14221
 PH: 716-633-2601
 FAX: 716-633-2704

CIVIL ENGINEERING
 LAND PLANNING
 SITE DESIGN
 MUNICIPAL ENGINEERING



CLARENCE SOLAR INDUSTRIAL PARK
WATER LINE EXTENSION - RESEARCH PARKWAY

TOWN OF CLARENCE, ERIE COUNTY, NEW YORK

WATER LINE PLAN

SCALE: 1" = 60'
 DATE: APRIL 15, 2024
 JOB NO: M-2121
 DRAWING NO:
WP-1
 SHEET 1 OF 3

NOTES

- All elevations refer to USGS NAVD83 datum.
- The CONTRACTOR shall obtain all necessary permits and furnish copies to the ENGINEER prior to commencing work.
- The CONTRACTORS 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.
- The CONTRACTOR shall provide maintenance and protection of traffic in accordance with the Erie County Highway Department standards and the NYSOT Manual of Uniform Traffic Control Devices.
- 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 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 the watermain to avoid conflicts.
- 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.
- Blasting will not be permitted.
- 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.
- 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.
- 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 in writing 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.

- All watermain piping shall be installed with a minimum of 5'-0" of cover.
- 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.
- 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 select granular material.
- The installation of 90 degree bends in the watermain is not allowed, unless approved by the Erie County Water Authority.
- Thrust restraint for watermain piping through 12-inch diameter shall consist of thrust blocks and pipe joint restraint.
- 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.
- 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.
- 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.
- The CONTRACTOR shall place temporary pavement (consisting of hot mix asphalt of cold patch) in all trench excavation in traveled areas including driveways, sidewalks and parking areas.
- The CONTRACTOR shall not restrict school bus access.
- 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.
- The CONTRACTOR shall submit procedures for testing and disinfection of the watermain to the ENGINEER for approval.
- 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.

Erie County Water Authority Design Manual (10-06)

3.16 Pressure and Leakage Testing Procedure

A. All pipelines shall be pressure and leakage tested in accordance with the methods described in ECWA's standard specifications and AWWA standard C600. Refer to AWWA C600 for specific conditions not covered in the ECWA specification.

B. In the event of a conflict between ECWA standard specification and AWWA standard C600, the more stringent of any requirement shall apply. The methods described in the ECWA standard specification applies to all pressure watermain.

C. The Engineer shall consider the following when determining the test pressure:

- Test pressure shall be 170 psi at the low point along the watermain for pipe sizes through 12 inches. Test pressure shall be 150 psi for pipe sizes 16 inches and larger.
- The test pressure shall not exceed valve, pipe or thrust-restraint pressures.
- The test pressure shall not vary by more than (+ -) 5 psi for the duration of the test.

3.17 Disinfection

A. All new or repaired watermain shall be cleaned, chlorinated, flushed and bacteriologically tested in accordance with the methods described in ECWA's Standard Specification. This specification is based on AWWA standard C651, Disinfecting Water Mains. Refer to AWWA C651 for specific conditions not covered. In the event of a conflict between the ECWA Standard Specification and AWWA standard C651, the more stringent of any requirement shall apply. Existing mains shall be protected at all times from cross connections with watermains being chlorinated. Cross connection protection shall be achieved by use of a reduced pressure zone backflow preventer (RPZ).

B. Large diameter transmission mains may require the installation of temporary components to adequately provide for proper disinfection and disposal. These requirements shall be included on the design drawings.

C. Hydrants shall not be used as a source for taking samples for bacteriological testing.

- GENERAL NOTES:
- WHILE SEVERAL DRIVEWAY CULVERT PIPES ARE SHOWN HERE WITH PROPOSED INVERTS, ONLY THOSE APPROVED BY THE ENGINEER IN THE FIELD SHALL BE REPLACED
 - LAWN RESTORATION. UPON INSTALLATION OF THE WATERLINE:
A) REPLACE AND COMPACT REMOVED SOILS TO AN ELEVATION 6" BELOW EXISTING GRADE.
B) INSTALL 6" OF TOPSOIL, SEED AND COVER WITH SMALL GRAIN STRAW MULCH OR HYDROSEED.
C) WATER DAILY AS NECESSARY UNTIL GRASS IS ESTABLISHED.
 - EXISTING DRIVEWAY RESTORATION SHALL BE PER DETAIL THIS SHEET
 - EROSION CONTROL NOTE: FABRIC SOCK SHALL BE INSTALLED AT THE DISTANCES SPECIFIED ON THE DETAIL ON SHEET D-1 AND UPSTREAM OF ALL CULVERT PIPES AND DITCH CROSSINGS
 - ADD FITTINGS AS NEEDED TO PROVIDE MINIMUM PIPE COVER WITHOUT EXCESSIVE DEPTH.
 - INSTALL NEW DRIVEWAY AND HYDRANT CROSSING CULVERTS SO INVERTS ARE 0.1' BELOW PROPOSED BOTTOM OF DITCH GRADE TO IMPROVE THE FLOW IN THE DITCH. INVERTS SHOWN SHALL BE ADJUSTED IN THE FIELD AS NECESSARY.
 - CONTRACTOR TO SECURE RIGHT OF WAY WORK PERMITS FROM THE NYSOT AND ERIE COUNTY HIGHWAY DEPARTMENT PRIOR TO THE START OF ANY WORK IN THE RIGHT OF WAY.
 - NOTE REMOVED.
 - CONTRACTOR SHALL PROVIDE A WORK ZONE TRAFFIC CONTROL PLAN TO THE NYSOT AND ERIE COUNTY HIGHWAY DEPARTMENT. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL MEASURES DURING CONSTRUCTION IDENTIFIED IN THE PLAN. ALL WORK ZONE TRAFFIC CONTROL SHALL CONFORM TO THE 2009 MUTCD, THE CURRENT NYS SUPPLEMENT, NYSOT STANDARD SHEETS AND NYSOT WORK ZONE TRAFFIC CONTROL MANUAL DATED JANUARY 2012.
 - CONTRACTOR TO REPLACE ALL EXISTING SITE FEATURES THAT ARE DISTURBED DURING CONSTRUCTION (MAILBOXES, FLOWERBOXES, FENCING, FLAGPOLES, ETC.) TO THEIR PRECONSTRUCTION CONDITION EXCEPT THAT MAILBOXES MUST BE TO REINSTALLED TO MEET USPS STANDARDS. ALL TREES ARE TO BE AVOIDED AND PRESERVED TO THE GREATEST EXTENT POSSIBLE.
 - NO STOCKPILING, STORAGE OF ANY MATERIALS, OR PARKING OF EQUIPMENT IS ALLOWED IN THE STATE ROW.
 - THE DITCHES IN THE STATE DOT ROW MUST BE RESTORED TO THEIR ORIGINAL SIDE SLOPE AND FLOW LINE FOR POSITIVE DRAINAGE.

DIRECT SERVICE WATER DISTRICTS

APPROVED () APPROVED AS CORRECTED (X)
NOT APPROVED () REVISE AND RESUBMIT ()

CHECKING OF THE DRAWINGS BY THE AUTHORITY ENGINEERS IS ONLY FOR THE PURPOSE OF ASCERTAINING COMPLIANCE WITH THE PHYSICAL ASPECTS OF GOOD WATER WORKS PRACTICES AND WITH CURRENT DISTRIBUTION SYSTEMS PLANNING.

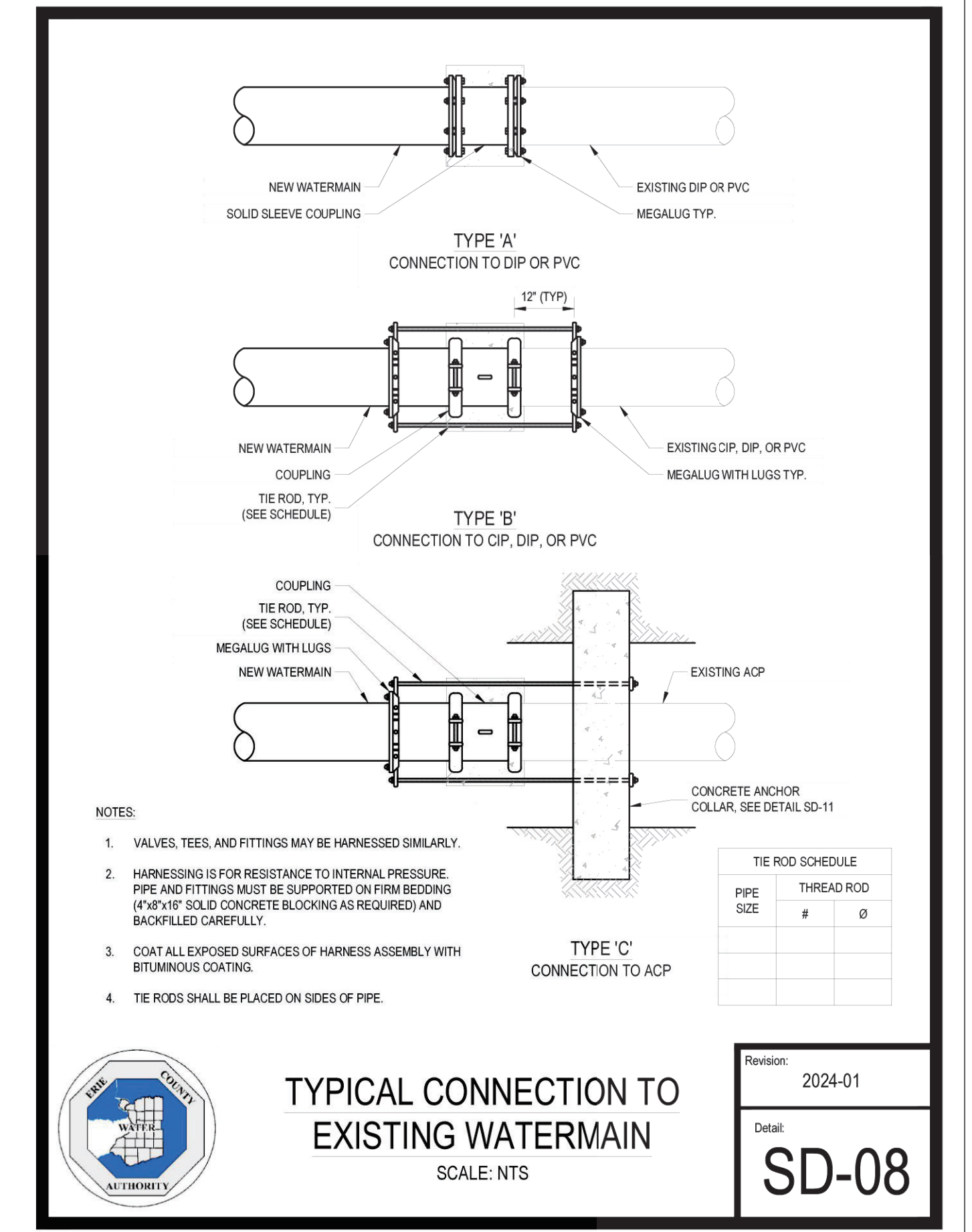
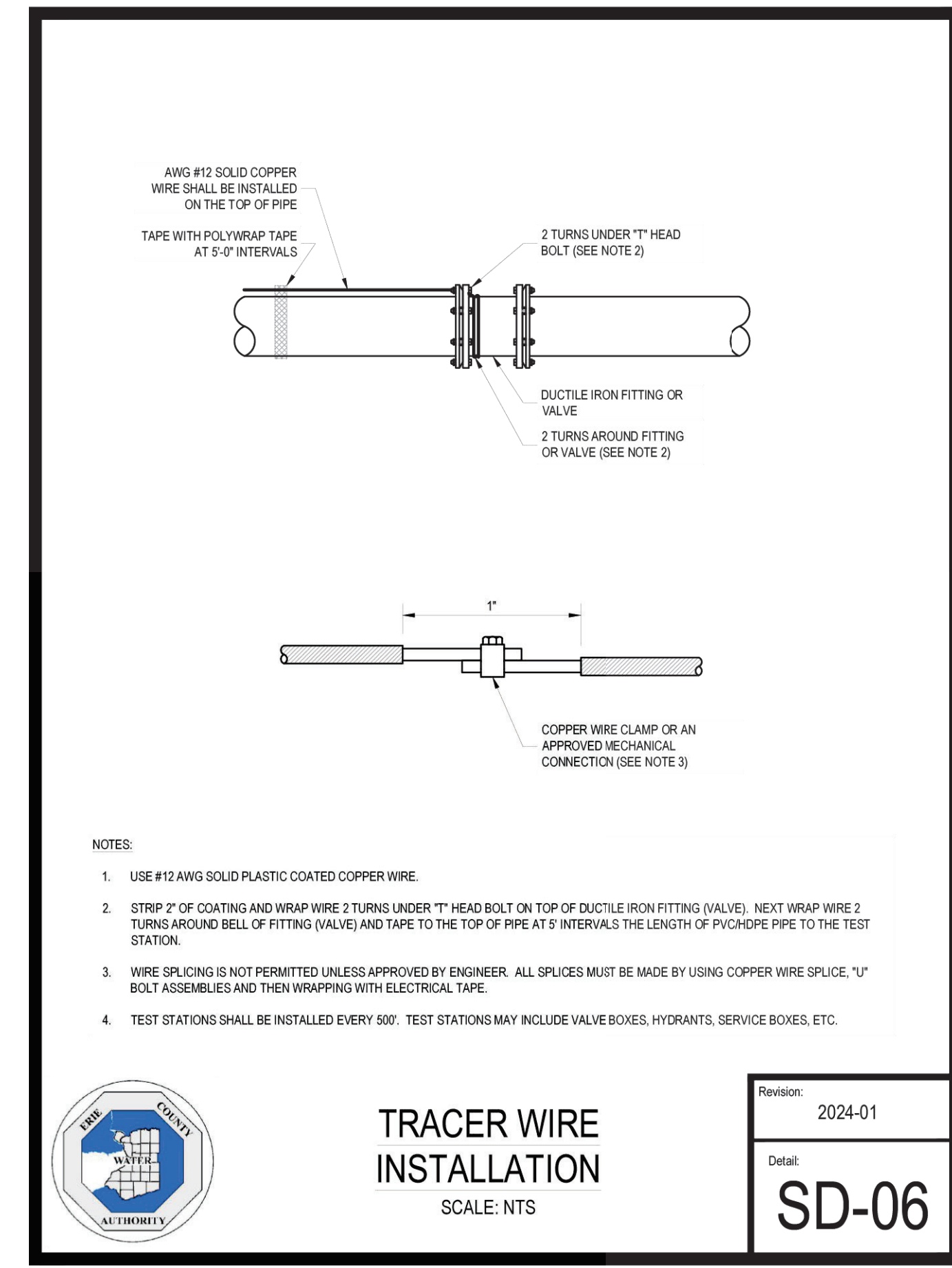
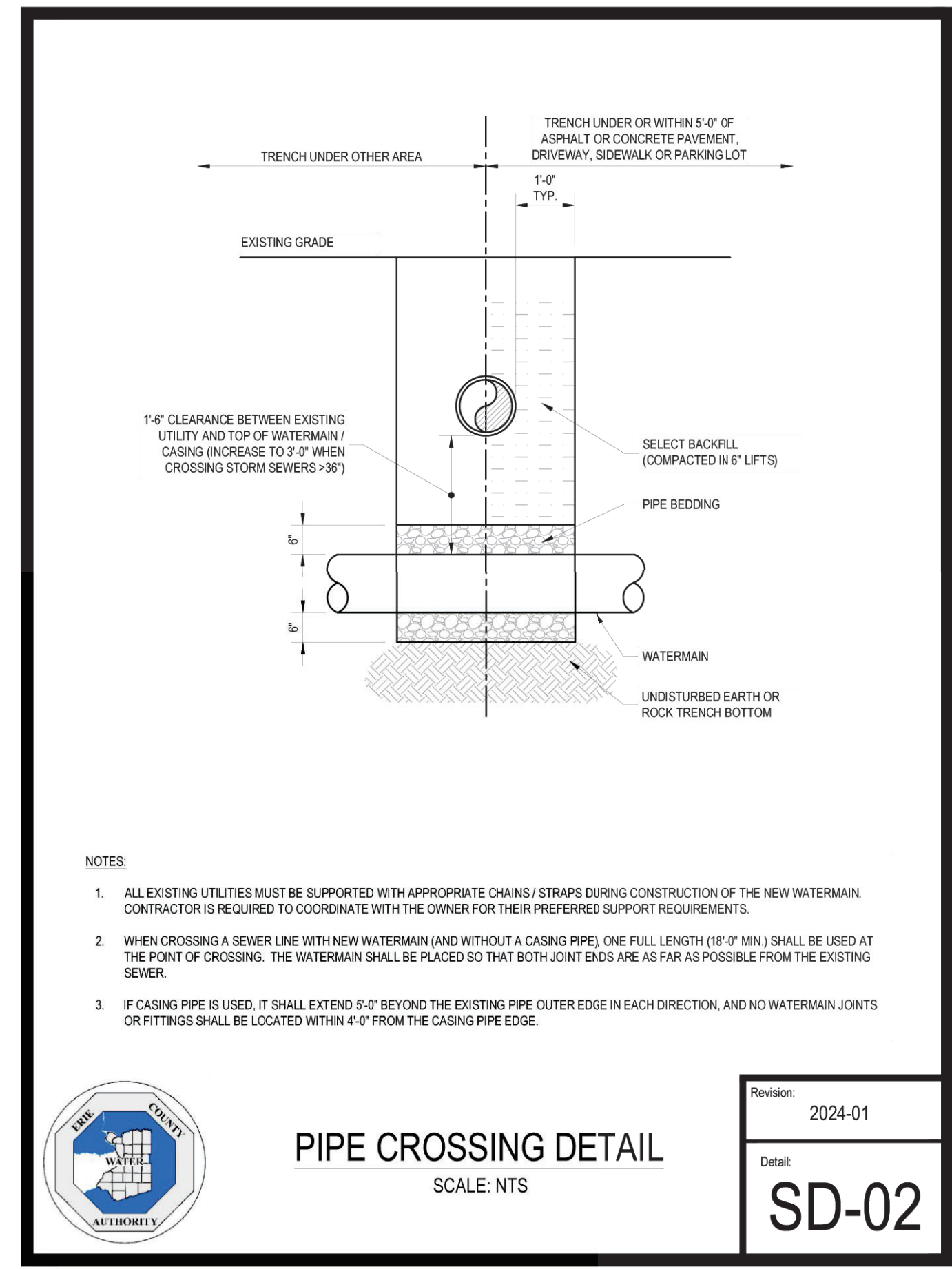
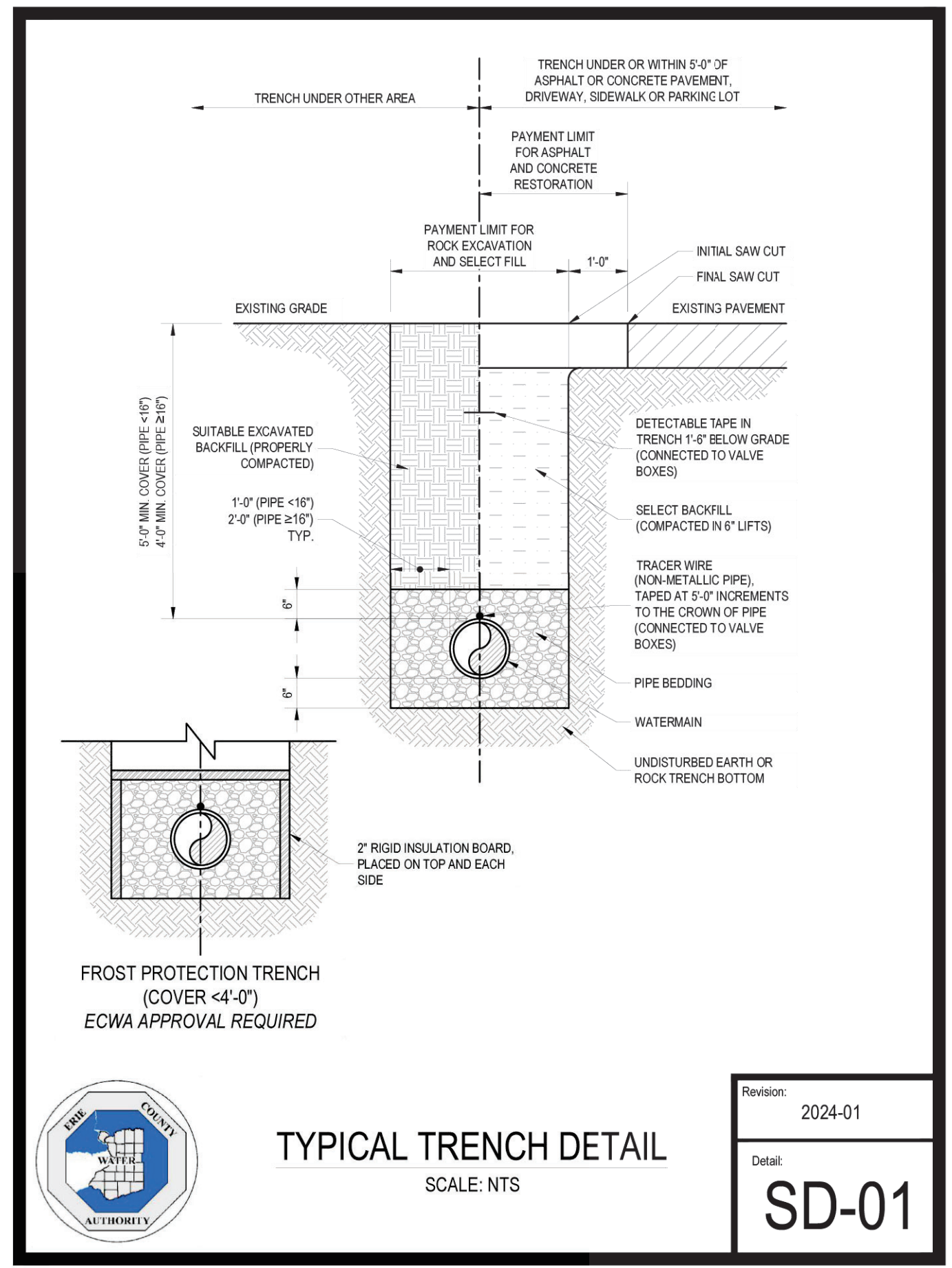
ERIE COUNTY WATER AUTHORITY

BY Jeanette K. Kowalski DATE 4/29/2024

THIS APPROVAL EXPIRES THREE YEARS FROM THE DATE OF APPROVAL

ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL GENERAL NOTES	DWG. NO.	DATE	REVISED
			3/05	11/21

ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL GENERAL NOTES	DWG. NO.	DATE	REVISED
			3/05	10/21



DESIGNED BY:	JCM
DRAWN BY:	JCM
CHECKED BY:	ARH
CAD FILE:	M2121
NOTE:	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW

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SITE DESIGN
MUNICIPAL ENGINEERING

**CLARENCE SOLAR INDUSTRIAL PARK
WATER LINE EXTENSION - RESEARCH PARKWAY**

TOWN OF CLARENCE, ERIE COUNTY, NEW YORK

WATER LINE DETAILS

SCALE: AS SHOWN
DATE: APRIL 15, 2024
JOB NO: M-2121
DRAWING NO: DT-1
SHEET 2 OF 3

TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH	TEE SIZE (RUN x BRANCH)	LR RUN	LR BRANCH
8"x8"	5'	40"	12"x12"	5'	30"
8"x8"	5'	70"	12"x12"	5'	110"
10"x8"	5'	30"	16"x8"	5'	20"
10"x8"	5'	60"	16"x8"	5'	36"
10"x10"	5'	50"	16"x10"	5'	65"
12"x8"	5'	20"	16"x12"	5'	30"
12"x8"	5'	56"	16"x12"	5'	146"

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

PIPE SIZE	90° BEND	45° BEND	22.5° BEND	11.25° BEND
6"	36"	15"	10"	5"
8"	40"	20"	10"	5"
10"	56"	25"	15"	10"
12"	60"	30"	15"	10"
16"	80"	36"	20"	10"

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

REDUCER SIZE	LR	REDUCER SIZE	LR
8"x4"	40"	12"x8"	75"
8"x4"	70"	12"x10"	40"
8"x6"	45"	16"x8"	150"
10"x8"	75"	16"x8"	130"
10"x8"	40"	16"x10"	105"
12"x8"	100"	16"x12"	75"

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

REDUCER SIZE	LR
4"	55"
6"	75"
8"	100"
10"	115"
12"	140"
16"	175"

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

RESTRAINED JOINT SCHEDULE
SCALE: NTS

Revision: 2024-01
Detail: **SD-09**

PIPE SIZE	90° BEND, TEE, OR DEAD END			45° BEND		
	A	B	C	A	B	C
6"	1.5'	1.0'	0.5'	0.75'	1.0'	0.5'
8"	1.5'	1.0'	0.75'	1.5'	1.0'	0.5'
10"	1.5'	1.5'	1.0'	1.5'	1.5'	0.75'
12"	2.0'	2.0'	1.0'	1.75'	1.75'	0.75'

PIPE SIZE	22.5° BEND			11.25° BEND		
	A	B	C	A	B	C
6"	0.5'	1.0'	0.5'	0.5'	1.0'	0.5'
8"	0.75'	1.0'	0.5'	0.5'	1.0'	0.5'
10"	1.0'	1.5'	0.75'	1.0'	1.0'	0.75'
12"	1.25'	1.75'	0.75'	1.25'	1.25'	0.75'

PIPE SIZE	VERTICAL BEND UP			VERTICAL BEND DOWN		
	D	H	W	D	H	W
6"	2.0'	5.0'	3.0'	3.5'	3.5'	3.0'
8"	2.0'	6.0'	4.0'	4.5'	4.5'	4.0'
10"	2.0'	6.25'	4.5'	4.75'	4.75'	4.5'
12"	2.0'	6.5'	5.0'	5.0'	5.0'	5.0'

*LENGTHS SHOWN ARE MINIMUM REQUIREMENTS

THRUST BLOCKS
SCALE: NTS

Revision: 2024-01
Detail: **SD-10**

VALVE BOX COVER SHALL BE LABELED "WATER"

FINISHED GRADE

TRACER WIRE RUN UP OUTSIDE OF BOX, AS REQUIRED

THREE PIECE CAST IRON VALVE BOX

APPROVED BACKFILL MATERIAL

GATE VALVE

MEGALUG TYP.

APPROVED BEDDING MATERIAL

UNDISTURBED EARTH

WATERMAIN

SOLID CONCRETE BLOCK (4"x8"x16") WITH HARDWOOD SHIMS

UNDISTURBED EARTH

NOTES:

- VALVE SHALL NOT SUPPORT VALVE BOX.
- GATE VALVE SHALL BE INSTALLED LEVEL AND VERTICALLY PLUMB.
- VALVE BOX SHALL BE PLUMB TO GRADE, WITH OPERATING NUT CENTERED IN BOX.

GATE VALVE SETTING
SCALE: NTS

Revision: 2024-01
Detail: **SD-12**

MINIMIZE DISTANCE

FINISHED GRADE

ROADWAY BOX

2" CURB STOP SUPPORTED BY A SOLID CONCRETE BLOCK (4"x8"x8")

HARNESSED END CAP WITH 2" CORPORATION STOP

APPROVED BEDDING MATERIAL

UNDISTURBED EARTH

2" TYPE K COPPER TUBING

1" WEEP HOLE DRILLED THROUGH ONE WALL OF THE COPPER PIPE

MIN. 5 CUBIC FEET OF NO. 1 STONE AROUND WEEP HOLE

FLARED FITTING WITH BRASS PLUG (2" BELOW GRADE)

TOP SECTION OF CAST IRON CURB BOX WITH COVER

APPROVED BACKFILL MATERIAL

MINIMIZE DISTANCE

FINISHED GRADE

ROADWAY BOX

APPROVED BEDDING MATERIAL

SERVICE SADDLE AND 2" CORPORATION STOP WITH 90° BEND

2" TYPE K COPPER TUBING

1" WEEP HOLE DRILLED THROUGH ONE WALL OF THE COPPER PIPE

MIN. 5 CUBIC FEET OF NO. 1 STONE AROUND WEEP HOLE

2" CURB STOP SUPPORTED BY A SOLID CONCRETE BLOCK (4"x8"x8")

NOTE: CONTRACTOR TO VERIFY COPPER TUBING DRAINS AFTER USE

BLOW-OFF
SCALE: NTS

Revision: 2024-01
Detail: **SD-24**

4" BACKFLOW PREVENTER WITH CONTROL VALVES ON EITHER SIDE.

EXISTING FIRE HYDRANT CONNECTED TO EXISTING WATERMAIN

4" PIPING / HOSE TO CONNECT HYDRANTS

EXISTING WATERMAIN (IN SERVICE)

CONNECT EXISTING HYDRANT TO PROPOSED HYDRANT

NEW FIRE HYDRANT CONNECTED TO PROPOSED WATERMAIN

FLUSH WATERMAIN EACH DIRECTION BY OPENING AND CLOSING WATERMAIN VALVES

NEW WATERMAIN (NOT IN SERVICE)

INSTALL TEMPORARY PIPING WITH BACKFLOW PREVENTER FROM EXISTING WATERMAIN TO NEW WATERMAIN

4" BACKFLOW PREVENTER WITH CONTROL VALVES ON EITHER SIDE.

PRESSURE TESTING (70 PSI) & CHLORINATION POINT

EXISTING WATERMAIN (IN SERVICE)

NEW WATERMAIN (NOT IN SERVICE)

SERVICE TAP, TAPPING SLEEVE AND VALVE, OR INTERCONNECTION

NOTES:

- THE PURPOSE OF THIS DETAIL IS TO DEPICT ACCEPTABLE METHODS OF CONNECTING EXISTING WATERMAINS TO PROPOSED WATERMAINS FOR FILLING, SCOURING, TESTING AND CHLORINATION.
- FIRE HOSE, TEMPORARY PIPING, AND BACKFLOW PREVENTERS SHALL NOT ENCRoACH INTO ROADWAYS, DRIVEWAYS, OR SIDEWALK AREAS WITHOUT PROVIDING PROPER MAINTENANCE AND PROTECTION OF TRAFFIC MEASURES.

SOURCE WATER CONNECTIONS AND PRESSURE TESTING / CHLORINATION POINT
SCALE: NTS

Revision: 2024-01
Detail: **SD-29**

CURB STOP

5'-0" MIN.

ROW

FUTURE CURB BOX

FUTURE CONNECTION TO EXISTING SERVICE WITH CURB STOP SUPPORTED BY A SOLID CONCRETE BLOCK (4"x8"x8")

1" OR 2" TYPE K COPPER TUBING

CORPORATION STOP

NEW WATERMAIN

NOTES:

- AFTER COMPLETION OF TESTING, THE SAMPLE POINT SHALL BE UTILIZED FOR A SERVICE CONNECTION. IF UNABLE TO UTILIZE FOR A SERVICE REPLACE THE CORPORATION STOP IN PIPE WITH A THREADED BRASS PLUG.

TEMPORARY BLOW-OFF / SAMPLING POINT
SCALE: NTS

Revision: 2024-01
Detail: **SD-30**

DIRECT SERVICE WATER DISTRICTS

APPROVED () APPROVED AS CORRECTED (X)
NOT APPROVED () REVISE AND RESUBMIT ()

CHECKING OF THE DRAWINGS BY THE AUTHORITY ENGINEERS IS ONLY FOR THE PURPOSE OF ASCERTAINING COMPLIANCE WITH THE PHYSICAL ASPECTS OF GOOD WATER WORKS PRACTICES AND WITH CURRENT DISTRIBUTION SYSTEMS PLANNING.

ERIE COUNTY WATER AUTHORITY

BY: *Imad F. Khatib* DATE: 4/29/2024

THIS APPROVAL EXPIRES THREE YEARS FROM THE DATE OF APPROVAL

THRUST BLOCK (SEE DETAILS)

PROPOSED WATER MAIN

8"x8" TEE

GATE VALVE (SEE DETAILS)

SERVICE CONNECTION DETAIL
NTS

INTERCONNECTION DETAIL
NTS

STA -1+47.5+0.4 SAMPLING POINT

EXISTING & PROPOSED GRADE

5" MINIMUM COVER (TYP) ADJUST AS NEEDED DURING INSTALLATION

8" GATE VALVE AT STA -1+47.5 PER PLAN/PROFILE

EXISTING 8" PVC WATER MAIN

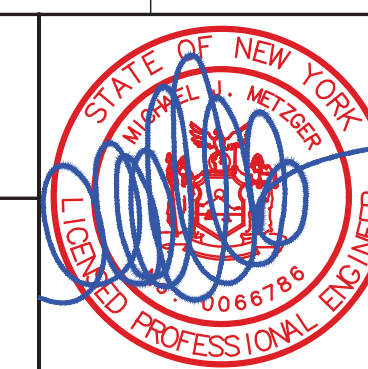
REFER TO DETAIL SDB FOR CONFIGURATION OF INTERCONNECTION

DESIGNED BY:	JCM
DRAWN BY:	JCM
CHECKED BY:	ARH
CAD FILE:	M2121
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ECWA COMMENTS	04.19.24	JCM/ARH
REVISIONS	DATE	BY/CHK

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CLARENCE SOLAR INDUSTRIAL PARK WATER LINE EXTENSION - RESEARCH PARKWAY
TOWN OF CLARENCE, ERIE COUNTY, NEW YORK

WATER LINE DETAILS & PROFILE

SCALE: AS SHOWN
DATE: APRIL 15, 2024
JOB NO: M-2121
DRAWING NO: DT-2
SHEET 3 OF 3