




# ERIE COUNTY WATER AUTHORITY

## INTEROFFICE MEMORANDUM

November 7, 2024

To: Terrence D. McCracken, Secretary to the Authority

From: Michael J. Quinn, PE, Senior Distribution Engineer 

Subject: Board Authorization for Miscellaneous System Improvements  
Water Distribution System Replacements and Improvements (PN 202300009)

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Please be advised that Authority has recently completed a number of water distribution system improvement projects within the Direct Service areas of the Erie County Water Authority Service Area under the above referenced contract.

These projects involve the installation and/or replacement of pipes, valves and hydrants of the Authority as well as the abandonment of the existing assets and removal of them from our inventory that have been developed and designed by the Engineering Department. The new assets in some cases replace existing Authority assets. The action to replace and retire assets requires Board consideration.

Attached find the Construction Authorization forms and design documents for the following projects:

- PN 202300036 – Harlem Rd, between Northern Pkwy and Genesee St – main repair and emergency hydrant replacement (CHTN).
- PN 202300035 – Ridge Rd and Orchard Park Rd – main replacement (WSTN).

These documents identify all the pertinent data including the cost of the new assets for each project.

Also attached please find the associated authorization form. Please advise if you require additional information.

MJQ:jmf  
Attachments  
cc: ECWA-928-2301

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

**Contract:** \_\_\_\_\_ **Project No.:** 202300009  
**Project Description:** Water Distribution System – Replacements and Improvements

**Item Description:**

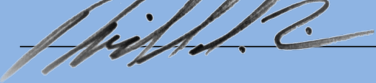

- |   |  |  |                                       |
|---|--|--|---------------------------------------|
| <input type="checkbox"/> Agreement                            | <input type="checkbox"/> Professional Service Contract | <input type="checkbox"/> Amendment                     | <input type="checkbox"/> Change Order |
| <input type="checkbox"/> BCD                                  | <input type="checkbox"/> NYSDOT Agreement              | <input checked="" 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 checked="" type="checkbox"/> Other EC's                |  |  |                                       |

**Action Requested:**

- |   |  |
|---|--|
| <input type="checkbox"/> Board Authorization to Execute                       | <input type="checkbox"/> Legal Approval                              |
| <input type="checkbox"/> Board Authorization to Award                         | <input 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: 11/7/2024 |
| <input type="checkbox"/> Chief Operating Officer              | _____   | Date: _____     |
| <input checked="" type="checkbox"/> Executive Engineer        |  | Date: 11/8/2024 |
| <input type="checkbox"/> Director of Administration           | _____   | Date: _____     |
| <input type="checkbox"/> Risk Manager                         | _____   | Date: _____     |
| <input type="checkbox"/> Chief Financial Officer              | _____   | Date: _____     |
| <input type="checkbox"/> Legal                                | _____   | Date: _____     |

**APPROVED FOR BOARD RESOLUTION:**

- |  |  |                  |
|--|--|------------------|
| <input checked="" type="checkbox"/> Secretary to the Authority |  | Date: 11/12/2024 |
|--|--|------------------|

**Remarks:** \_\_\_\_\_

**Resolution Date:** \_\_\_\_\_

**Item No:** \_\_\_\_\_

**ERIE COUNTY WATER AUTHORITY  
CONSTRUCTION AUTHORIZATION**

Project No. 202300036  
Budget No. \_\_\_\_\_

Authorization No.: EC 7317  
Date: 2/21/19  
Inputted By/Date: \_\_\_\_\_

February 2023 Estimate Starting Date  
February 2024 Estimate Complete Date  
X yes \_\_\_\_\_ no Retirement Involved  
X \_\_\_\_\_ Public Street  
\_\_\_\_\_ Private Right of Way  
\_\_\_\_\_ On Authority's Prop  
\_\_\_\_\_ Tax Districts \_\_\_\_\_  
Name of Grantor of Easement \_\_\_\_\_  
\_\_\_\_\_ Date of Easement \_\_\_\_\_

**CLASS OF MAIN INSTALLATION:**

X System Betterment  
\_\_\_\_\_ Bldr/Cont/Dev. Agree.  
\_\_\_\_\_ Owner Occupant Cont.  
\_\_\_\_\_ Special Revenue Cont.

**ESTIMATE COST**

(1) Total Est. Cost \$ 34,893.65  
(2) \_\_\_\_\_ Meters and \$ \_\_\_\_\_  
Service @ \_\_\_\_\_  
(3) Removal Cost Less Salvage \$ \_\_\_\_\_  
(4) Gross Investment \$ 34,893.65

**DEDUCT**

(5) Const. Advance \$ \_\_\_\_\_  
(6) Service Conn. \$ \_\_\_\_\_  
(7) Refunds \$ \_\_\_\_\_  
(8) Net Auth. Invest. \$ 34,893.65

**BUDGETARY DATA**

(9) Tot. Budget Expnd. \$ \_\_\_\_\_  
(10) This Authorization \$ \_\_\_\_\_  
(11) Pre Approved \$ \_\_\_\_\_  
(12) Tot. Apvl. To Date \$ \_\_\_\_\_  
(13) Bal. Budget Expnd. \$ \_\_\_\_\_

**APPROVALS**

Preparation Adam Massaro  
Sr. Dist. Engr. 11/7/2024  
Exec. Engr. 11/7/2024  
Admn. Director \_\_\_\_\_  
Legal Dept. \_\_\_\_\_  
Acct. Dept. \_\_\_\_\_

**TITLE OF PROJECT:** Main Repair/Hydrant  
Replacement on Harlem Rd. between Northern  
Pkwy. and Genesee St.

**DETAILED DESCRIPTION AND PURPOSE:**

Main repair and emergency replacement of 2 existing  
Hydrants on Harlem Rd., between Northern Pkwy.  
And Genesee St. in the Town of Cheektowaga.

**ESTIMATED EARNINGS & RETURNS**

**ESTIMATED INCREASE IN REVENUES**

(14) Customers @ \$ \_\_\_\_\_  
\$ \_\_\_\_\_  
(15) Hydrants @ \$ \_\_\_\_\_  
\$ \_\_\_\_\_

**EST. SAVINGS IN OPERATING EXPENSES**

(16) \$ \_\_\_\_\_  
(17) Gross Increase in Earnings \$ \_\_\_\_\_

**REVENUE DEDUCTIONS**

(18) Operating Exp. \_\_\_\_\_ % \$ \_\_\_\_\_  
(19) Depreciation \$ \_\_\_\_\_  
(20) Total Deductions \$ \_\_\_\_\_  
(21) Net Income Loss \$ \_\_\_\_\_  
(22) % Return on Investment \_\_\_\_\_  
(21) divided by 8) \_\_\_\_\_ %

**RESOLUTION APPROVING**

Adopted \_\_\_\_\_  
Item No. \_\_\_\_\_

PROJECT NUMBER: 202300036

EC/OWIP NUMBER: 107200-007317

PROJECT DISCRIPTION: Harlem Road @ Northern Pkwy (Relocate Hydrant J09-F11)

<i>BID ITEM #</i>	<i>EST. QUANTITY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>MEASURE D QUANTITY</i>	<i>AMOUNT</i>
1A1	3500	LF @	\$80.00	57.50	\$4,600.00
1B1	300	LF @	\$90.00	12.00	\$1,080.00
3A2	5	Ea @	\$3,000.00	1.00	\$3,000.00
3C2	1	Ea @	\$5,300.00	1.00	\$5,300.00
4A1	5	Ea @	\$1,450.00	1.00	\$1,450.00
4B1	5	Ea @	\$750.00	1.00	\$750.00
5A1	100	Ea @	\$250.00	2.00	\$500.00
5A2	20	Ea @	\$300.00	5.00	\$1,500.00
6A1	3000	LF @	\$1.00	65.00	\$65.00
8A1	1800	CY @	\$55.00	69.67	\$3,831.85
13B1	600	SY @	\$130.00	41.00	\$5,330.00
13C2	400	SY @	\$150.00	14.22	\$2,133.00
14A3	50	Hrs @	\$450.00	8.00	\$3,600.00
14B1	1	ALW	\$150,000.00	\$514.05	\$514.05
14B2	1	ALW	\$50,000.00	\$1,239.75	\$1,239.75
<b>TOTAL:</b>					<b>\$34,893.65</b>





# ERIE COUNTY WATER AUTHORITY

## REQUISITION ON STORES

Project No.: 202300036 Date: 04/04/23 Requisition No.: \_\_\_\_\_

Issue To: Kandey Co., Inc

For Use In: Harlem Road Hydrant Relocation and Replacement

Location: 2801 Harlem Road, Town of Cheektowaga

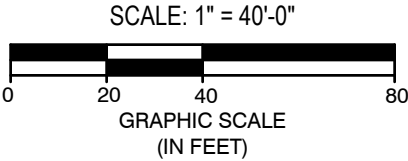
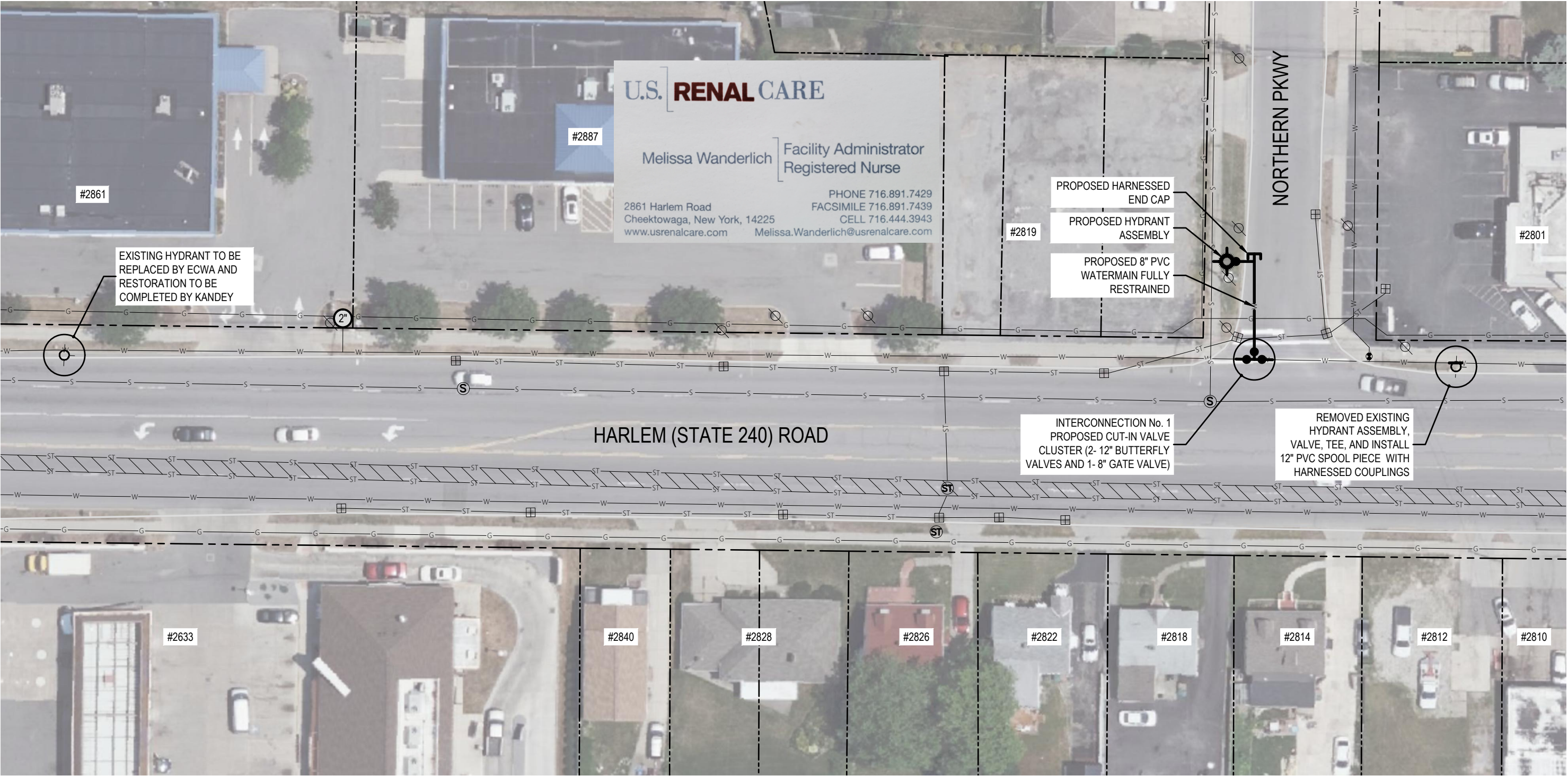
OWIP: \_\_\_\_\_ EC NO.: 107200-007317 Svc. No.: \_\_\_\_\_

Quantity	Description	Part #	On Site	Used	Ret.
20	12" DIP				
60	8" PVC or DIP				
20	6" DIP				
2	8" 45° DI Bends MJ w/ Accessories				
1	12"x12"x8" Tee MJ w/ Accessories				
1	8"x8"x6" Tee MJ w/ Accessories				
1	8" Solid End Cap MJ w/ Accessories				
2	12" Butterfly Valve				
1	8" Gate Valve				
1	6" Gate Valve				
4	Complete Valve Box				
1	8" Joint Restraints – Complete both sides				
4	12" HYMAX				
12	12" DI Mega Lugs				
2	12" PVC Mega Lugs				
8	8" PVC Mega Lugs (If DI is supplied switch to DI Mega Lugs)				
4	6" DI Mega Lugs				
1	5.5' Hydrant Assembly				
16	Ductile Lugs				
60	3/4" All Thread				
16	3/4" Nuts				

Kandey Co., Inc. \_\_\_\_\_

Inspector \_\_\_\_\_

IMPORTANT NOTE: CONTACT U.S. RENAL CARE TO SCHEDULE SHUT DOWN DAY AND TIME



ALL UTILITIES ARE BASED ON BEST GIVEN INFORMATION AND ARE APPROXIMATE ONLY. SOME UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES DURING EXCAVATION BY CONTACTING UFPO PRIOR TO PERFORMING ANY EARTHWORK.

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

HARLEM ROAD  
HYDRANT RELOCATION AND  
REPLACEMENT  
ECWA PN202300036

TOWN OF CHEEKTOWAGA  
ERIE COUNTY - NEW YORK

Name:  
HARLEM ROAD - PLAN

Date:  
MARCH 2023

Scale:  
AS SHOWN

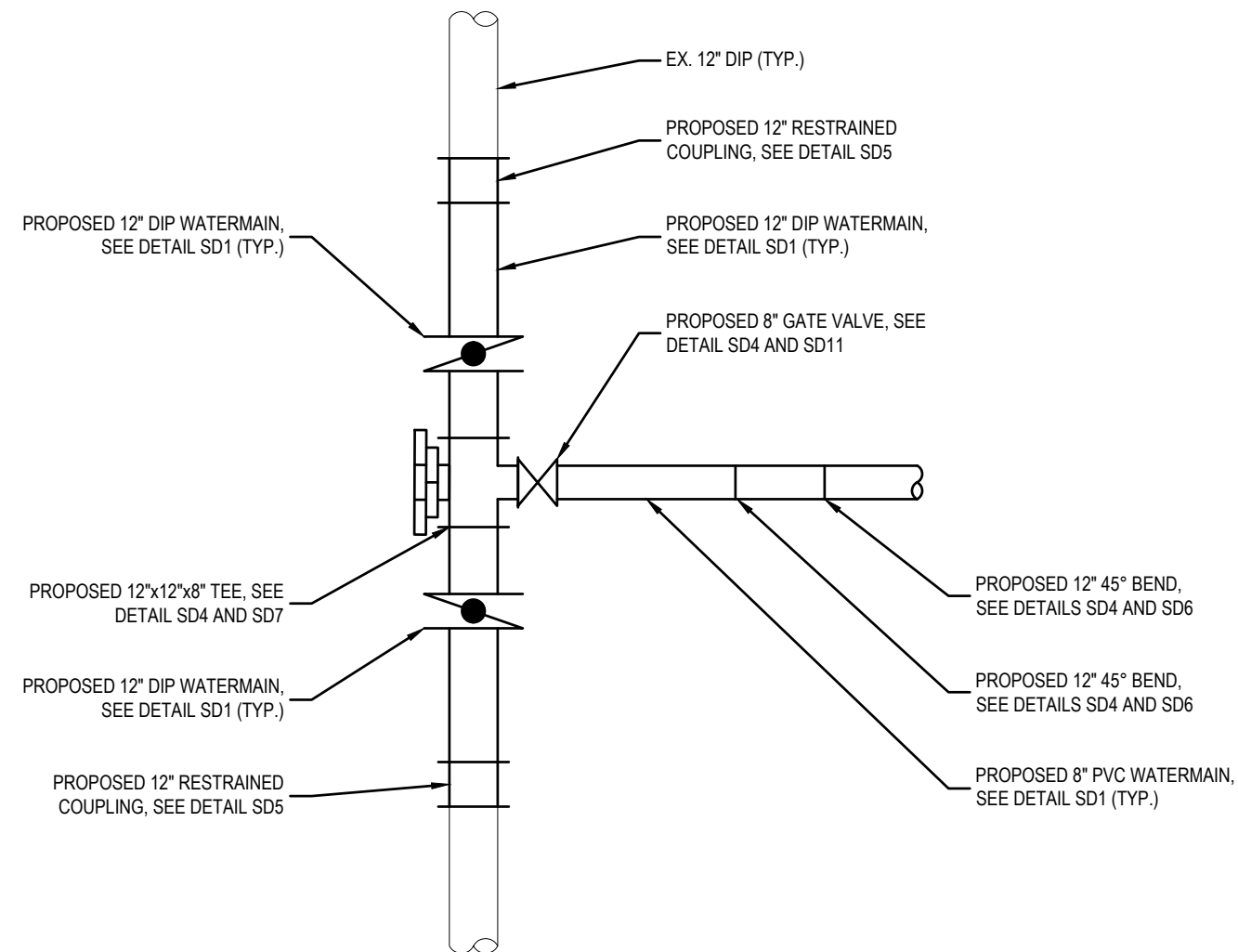
Drawn/Revised By:  
WWW

Sheet

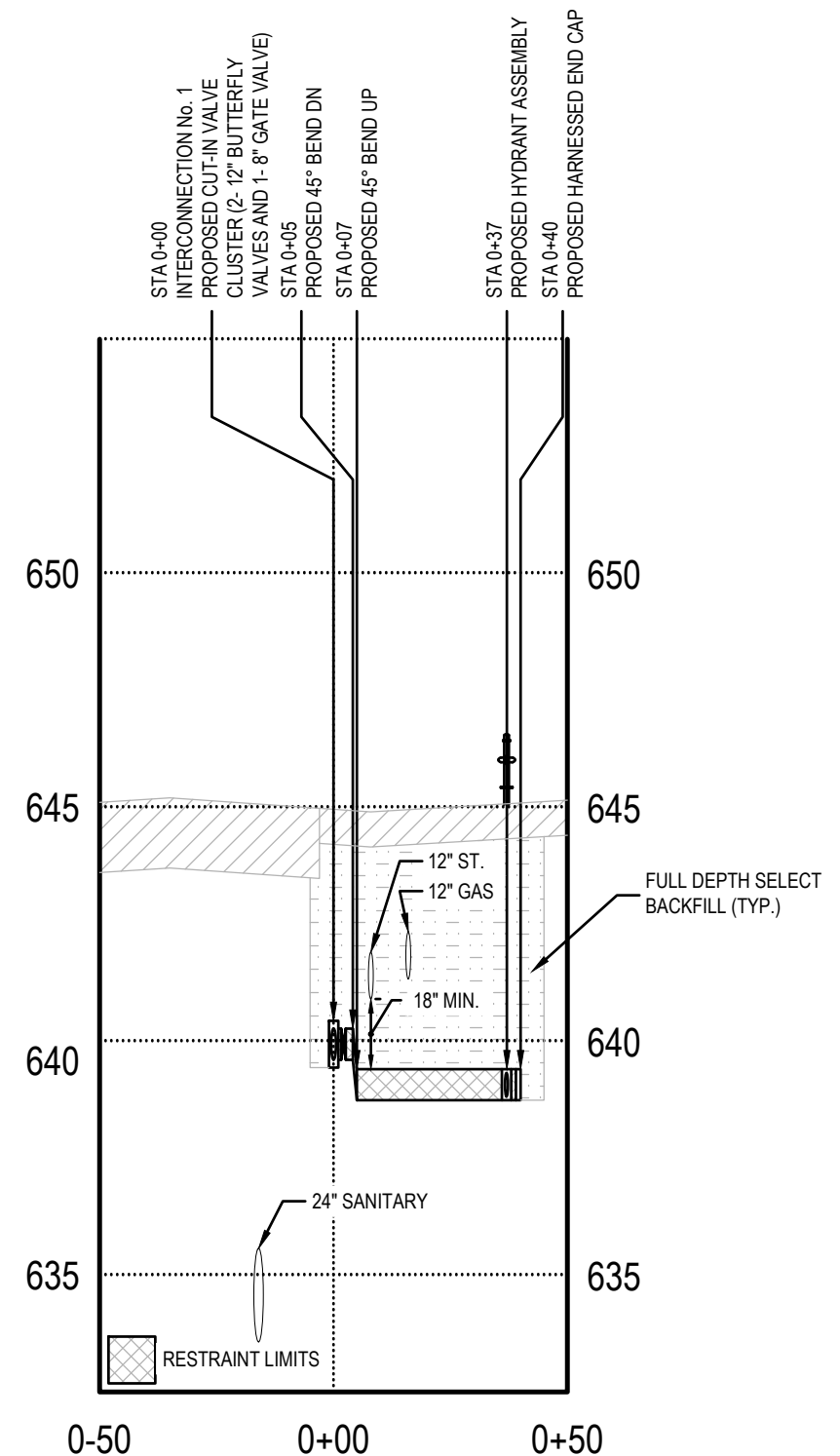
W-1

Page: 1 of 2

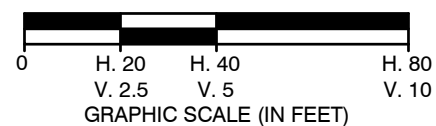
File Name:  
202300036 - HARLEM HYDRANT  
DESIGN



**INTERCONNECTION NO. 1**  
NTS



SCALE: HORZ. 1" = 40'-0"; VERT. 1" = 5'-0"



ALL UTILITIES ARE BASED ON BEST GIVEN INFORMATION AND ARE APPROXIMATE ONLY. SOME UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES DURING EXCAVATION BY CONTACTING UFPO PRIOR TO PERFORMING ANY EARTHWORK.

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

**HARLEM ROAD  
HYDRANT RELOCATION AND  
REPLACEMENT  
ECWA PN202300036**

TOWN OF CHEEKTOWAGA  
ERIE COUNTY - NEW YORK

Name:  
**HARLEM ROAD - PROFILE  
AND INTERCONNECTION**

Date:  
**MARCH 2023**

Scale:  
**AS SHOWN**

Drawn/Revised By:  
**WWW**

Sheet

**W-2**

Page: 2 of 2

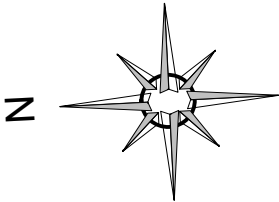
File Name:  
202300036 - HARLEM HYDRANT  
DESIGN





**Date:** 4/3/2023 **Author:** US Traffic Control **Project:** ECWA PN202300036 Harlem Rd. Hydrant Relocation  
**Comments:**  
Kandey Co Removing and Installing Fire Hydrants on Harlem Rd. at Northern Pkwy and ECWA Replacing a Fire Hydrant on Harlem Rd. in Town of Cheektowaga  
  
Northbound Harlem Right Lane Closure per Standard Sheet 619-414  
Northern Pkwy Closed with posted detour: Harlem to George Urban to W. Grand  
Eastside Sidewalk Closure/Detour per Standard Sheet 619-520

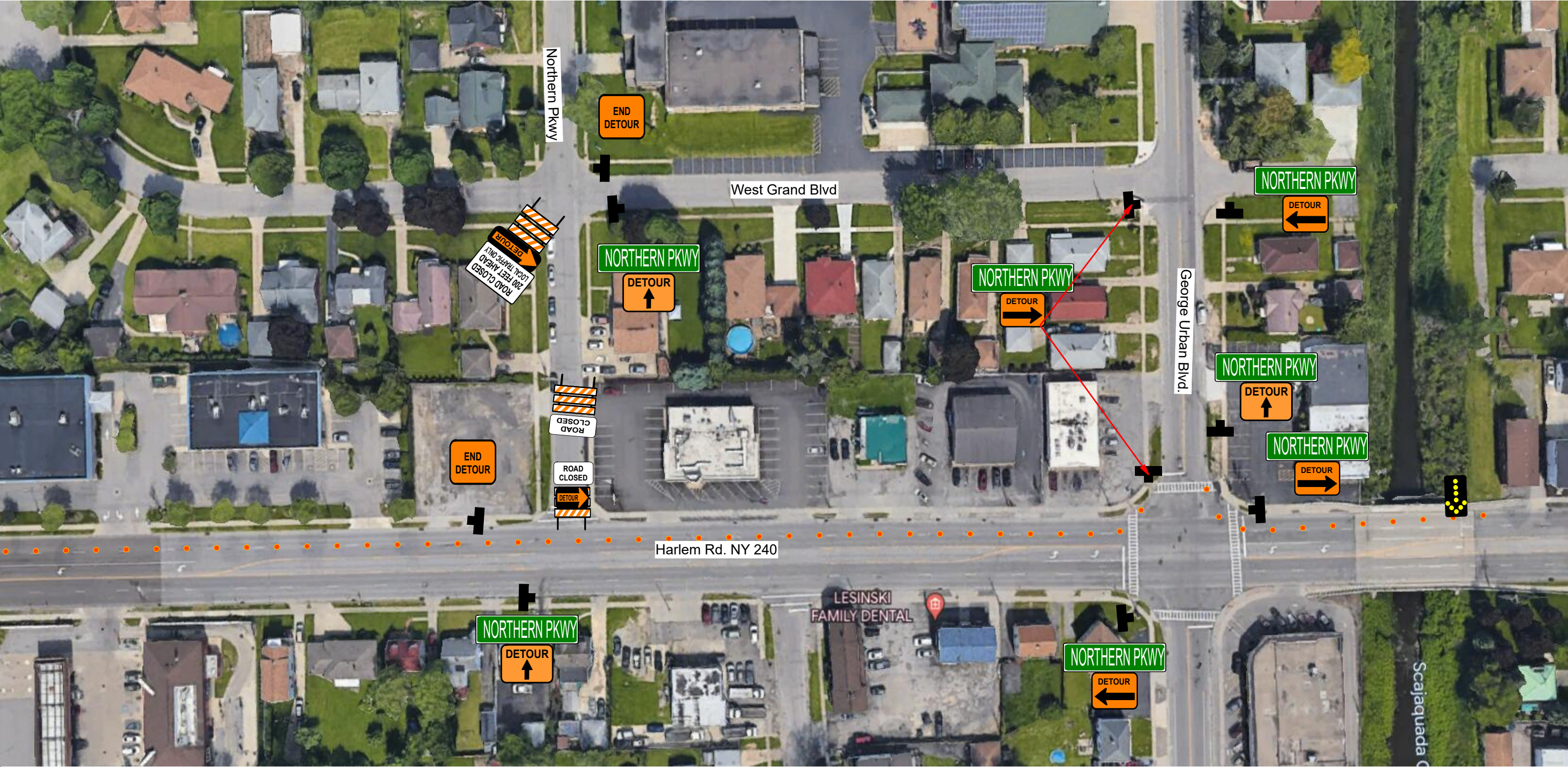
**\* All driveways will be delineated.**  
**NOTE:** Place "Road Work Ahead" signs on side roads 100-200ft in advance of intersection.  
**Delineation device spacing = 30'**  
**Drawing not to scale.**














**Date:** 4/3/2023 **Author:** US Traffic Control **Project:** ECWA PN202300036 Harlem Rd. Hydrant Relocation

**Comments:**  
Kandey Co Removing and Installing Fire Hydrants on Harlem Rd. at Northern Pkwy and ECWA Replacing a Fire Hydrant on Harlem Rd. in Town of Cheektowaga

Northbound Harlem Right Lane Closure per Standard Sheet 619-414  
Northern Pkwy Closed with posted detour: Harlem to George Urban to W. Grand  
Eastside Sidewalk Closure/Detour per Standard Sheet 619-520

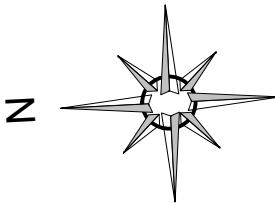
Sheet 3 of 3

**\* All driveways will be delineated.**

**NOTE: Place "Road Work Ahead" signs on side roads 100-200ft in advance of intersection.**

**Delineation device spacing = 30'**

**Drawing not to scale.**





**ERIE COUNTY WATER AUTHORITY  
CONSTRUCTION AUTHORIZATION**

Project No. 202300035  
Budget No. \_\_\_\_\_

Authorization No.: EC 7334  
Date: 8/23/23  
Inputted By/Date: \_\_\_\_\_

June 2023 Estimate Starting Date  
June 2024 Estimate Complete Date  
X yes \_\_\_\_\_ no Retirement Involved  
X Public Street  
Private Right of Way  
On Authority's Prop  
Tax Districts \_\_\_\_\_  
Name of Grantor of Easement \_\_\_\_\_  
Date of Easement \_\_\_\_\_

**CLASS OF MAIN INSTALLATION:**

X System Betterment  
Bldr/Cont/Dev. Agree.  
Owner Occupant Cont.  
Special Revenue Cont.

**ESTIMATE COST**

(1) Total Est. Cost \$ 192,200.00  
(2) \_\_\_\_\_ Meters and \$ \_\_\_\_\_  
Service @ \_\_\_\_\_  
(3) Removal Cost Less Salvage \$ \_\_\_\_\_  
(4) Gross Investment \$ 192,200.00

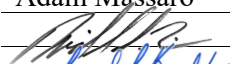
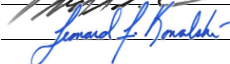
**DEDUCT**

(5) Const. Advance \$ \_\_\_\_\_  
(6) Service Conn. \$ \_\_\_\_\_  
(7) Refunds \$ \_\_\_\_\_  
(8) Net Auth. Invest. \$ 192,200.00

**BUDGETARY DATA**

(9) Tot. Budget Expnd. \$ \_\_\_\_\_  
(10) This Authorization \$ \_\_\_\_\_  
(11) Pre Approved \$ \_\_\_\_\_  
(12) Tot. Apvl. To Date \$ \_\_\_\_\_  
(13) Bal. Budget Expnd. \$ \_\_\_\_\_

**APPROVALS**

Preparation Adam Massaro  
Sr. Dist. Engr.  11/7/2024  
Exec. Engr.  11/7/2024  
Admn. Director \_\_\_\_\_  
Legal Dept. \_\_\_\_\_  
Acct. Dept. \_\_\_\_\_

**TITLE OF PROJECT:** Main Replacement

**DETAILED DESCRIPTION AND PURPOSE:**

Replacement of 220 LF of 12" & 20 LF of  
8"watermain at the intersection of Ridge Rd. and  
Orchard Park Rd in the Town of West Seneca.

**ESTIMATED EARNINGS & RETURNS**

**ESTIMATED INCREASE IN REVENUES**

(14) Customers @ \$ \_\_\_\_\_  
\$ \_\_\_\_\_  
(15) Hydrants @ \$ \_\_\_\_\_  
\$ \_\_\_\_\_

**EST. SAVINGS IN OPERATING EXPENSES**

(16) \$ \_\_\_\_\_  
(17) Gross Increase in Earnings \$ \_\_\_\_\_

**REVENUE DEDUCTIONS**

(18) Operating Exp. \_\_\_\_\_ % \$ \_\_\_\_\_  
(19) Depreciation \$ \_\_\_\_\_  
(20) Total Deductions \$ \_\_\_\_\_  
(21) Net Income Loss \$ \_\_\_\_\_  
(22) % Return on Investment \_\_\_\_\_  
(21) divided by 8) \_\_\_\_\_ %

**RESOLUTION APPROVING**

Adopted \_\_\_\_\_  
Item No. \_\_\_\_\_

# Cost Estimate

PROJECT NO.: **202300035**

Prepared By: **W.WHEELER**

Date: **8/22/2023**

Inputted By: **C.BATES**

Date: **8/22/2023**

TITLE: **INSTALL 240' MAIN REPLACEMENT (ALIGNMENT B)  
RIDGE RD & ORCHARD PARK RD., TOWN OF WEST SENECA**

Type of Connection: **M.J.**

## MATERIAL LIST

Materials					
Qty.	U/M	Item No.	Description	Cost per Unit	Total Cost per Item
220	LF	12492	12" PVC PIPE W/ WRAP	\$47.00	\$10,340.00
20	LF	12490	8" PVC PIPE W/ WRAP	\$19.00	\$380.00
240	LF		POLY WRAP	\$0.40	\$96.00
2	EA	14353	12" 45° DI BENDS MJ W/ ACCESSORIES	\$230.00	\$460.00
1	EA	14333	8" 45° DI BENDS MJ W/ ACCESSORIES	\$80.00	\$80.00
1	EA	5126	12"X8" DI REDUCER W/ ACCESSORIES	\$140.00	\$140.00
2	EA	15081	8" SOLID SLEEVE W/ ACCESSORIES	\$122.00	\$244.00
1	EA	11124	12"X6" DI ANCHOR TEE MJ W/	\$368.00	\$368.00
1	EA	9081	8" SOLID END CAP MJ W/ ACCESSORIES	\$55.00	\$55.00
11	EA	13122	12" JOINT RESTRAINTS- BOTH SIDES	\$178.00	\$1,958.00
1	EA	13123	8" JOINT RESTRAINTS - BOTH SIDES	\$76.00	\$76.00
5	EA	13186	12" PVC MEGA LUGS	\$100.00	\$500.00
6	EA	13184	8" PVC MEGA LUGS	\$51.00	\$306.00
2	EA	13182	8" DI MEGA LUGS	\$73.00	\$146.00
8	EA	36030	DUCTILE LUGS	\$5.00	\$40.00
40	EA	36007	3/4" ALL THREAD	\$2.00	\$80.00
8	EA		3/4" NUTS	\$0.25	\$2.00
TOTAL MATERIAL COST (MAT)					\$15,271.00

## INSTALLATION per ECWA LARGE SERVICE CONTRACT

Installation					
Qty.	U/M	Item No.	Description	Cost per Unit	Total Cost per Item
20	LF	1A1	8" WATERMAIN 6' OF COVER OR LESS	\$85.00	\$1,700.00
220	LF	1B1	12" WATERMAIN 6' OF COVER OR LESS	\$100.00	\$22,000.00
1	EA	3A1	8" INTERCONNECTION	\$2,675.00	\$2,675.00
20	LF	12A3	8" TESTING/DISENFECTION UNDER 200'	\$11.00	\$220.00
220	LF	12B5	12" TESTING/ DISENFECTION OVER 200'	\$11.00	\$2,420.00
2	EA	2D1	VALVE ABANDONMENT	\$1,500.00	\$3,000.00
5	EA	5A2	12" DUCTILE IRON FITTINGS	\$325.00	\$1,625.00
4	EA	5A1	8" DUCTILE IRON FITTINGS	\$270.00	\$1,080.00
240	EA	6A1	POLY WRAP	\$2.00	\$480.00
8	EA		CREW TIME	\$550.00	\$4,400.00
1	EA		TRAFFIC CONTROL	\$30,000.00	\$30,000.00
Restoration					
Qty.	U/M	Item No.	Description	Cost per Unit	Total Cost per Item
650	SY	13B8	COLD MILL & ASPHALT TOP 1.5"	\$60.00	\$39,000.00
225	CY	8A1	SELECT FILL	\$60.00	\$13,500.00
35	LF	13F1	LAWN	\$33.00	\$1,155.00
20	SY	13C1	CONCRETE SIDEWALK	\$160.00	\$3,200.00
50	SY	13B3	CONCRETE BASE	\$200.00	\$10,000.00
32	SY	13D1	ASPHALT DRIVEWAY	\$110.00	\$3,520.00
TOTAL LABOR COST (LAB)					\$139,975.00

STORES ALLOCATION COST (SAL) = 15.0% OF MATERIAL COST (MAT) **\$2,290.65**

SUBTOTAL "A" = MAT+LAB+SAL **\$157,536.65**

OVERHEAD COST (OVHD) = 10.9% OF SUBTOTAL "A" **\$17,171.49**

SUBTOTAL "B" = OVHD + SUBTOTAL "A" **\$174,708.14**

CONTINGENCIES (CONT) = 10.0% OF SUBTOTAL "B" **\$17,470.81**

**\*TOTAL ESTIMATED COST = CONT + SUBTOTAL "B" (ROUNDED) **\$192,200.00****

(\*ESTIMATED COST EFFECTIVE IF INSTALLED BY JANUARY 31, 2025)

\\ecwa1p\projects\LM\p202300035\10 Design\West Seneca





# ERIE COUNTY WATER AUTHORITY

## REQUISITION ON STORES

Project No.: 202300035 Date: 06-30-23 Requisition No.: \_\_\_\_\_

Issue To: Kandey Co., Inc.

For Use In: Main Replacement (Alignment A)

Location: Ridge and Orchard Park Road

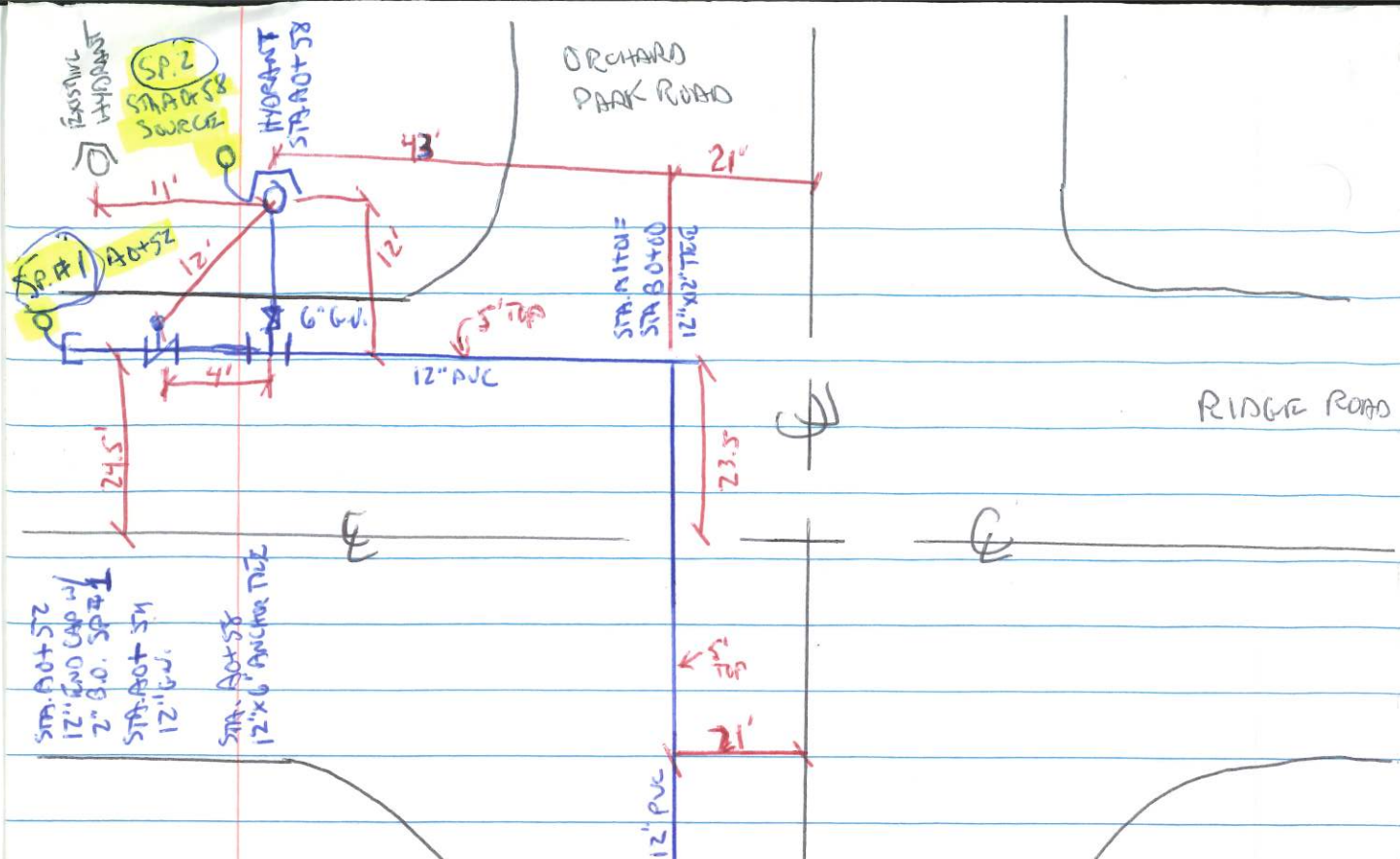
OWIP: \_\_\_\_\_ EC NO.: 107200-007334 Svc. No.: \_\_\_\_\_

Quantity	Description	Part #	On Site	Used	Ret.
160 ft	12" PVC Pipe				
40 ft	6" DI Pipe				
40 ft	Poly Wrap				
2	12" 45° DI Bends MJ w/ Accessories				
2	12" 22.5° DI Bends MJ w/ Accessories				
2	12" Solid Sleeve w/ Accessories				
1	12"x12" DI Tee MJ w/ Accessories				
2	12" Solid End Cap MJ w/ Accessories				
1	6" Solid End Cap MJ w/ Accessories				
1	12" Butterfly Valve				
1	6" Gate Valve				
2	Complete Valve Box				
9	12" Joint Restraints – Complete both sides				
13	12" PVC Mega Lugs				
4	12" DI Mega Lugs				
4	12" CI Mega Lugs				
1	6" CI Mega Lugs				
8	Ductile Lugs				
40	3/4" All Thread				
8	3/4" Nuts				
1	1" Compression x Compression Corp				
1	1" Compression Curb Stop				
60	1" Copper				
1	12"x1" Saddle				
1	Service Boxes - Complete				

Kandey Co., Inc \_\_\_\_\_

Inspector \_\_\_\_\_





A SOURCE -  $4.5 \times 4.5 \times 3 = 22.5 \text{ cy}$

HYD -  $4 \times 10 \times 5 = 70.5 \text{ cy}$

AT TIE -  $5 \times 4.5 \times 5 = 4 \text{ cy}$

B LINE -  $3 \times 4.5 \times 214 = 107 \text{ cy}$

INTER #1 -  $118.5 \text{ cy}$

INTER #2 -  $155.4 \text{ cy}$

INTER #3 -  $155.4 \text{ cy}$

PO  
8-1

### FLUSHING

- REQUIRED 1545 GALLONS

@ 500 GPM =  $3.09 \text{ MINUTES} \times 3 = 9.27 \text{ MINUTES}$

- ACTUAL - 4,635 GALLONS @ 500 GPM

= 9.16 MINUTES. FLUSHED FOR 10 MINUTES

STA B 2+10  
12" BUTTERFLY VALVE  
STA B 2+14  
12" END CAP  
2" B.O. SP #3

202300075

202300075  
RIDGE ROAD 3 ORCHARD  
PARK ROAD

WATER SYSTEM IMPROVEMENTS

WEST SENECA

10/7/23

#697  
GAS STATION

PO  
8-1

12'

21'

STA BZ+36.5  
8" 45° BEND

5" TOP

8" DIP

2.5" TOP

WENDY'S  
PARKING LOT

8" GAS

CURB

ADJUSTED

BTD

8" GAS

OUT BANK

CURB

12" PVC

5' TOP

8" PVC

STA BZ+20.5  
8" SOLID SURVEY

STA. BZ+10  
12" BIV

STA. BZ+15  
12" RFA

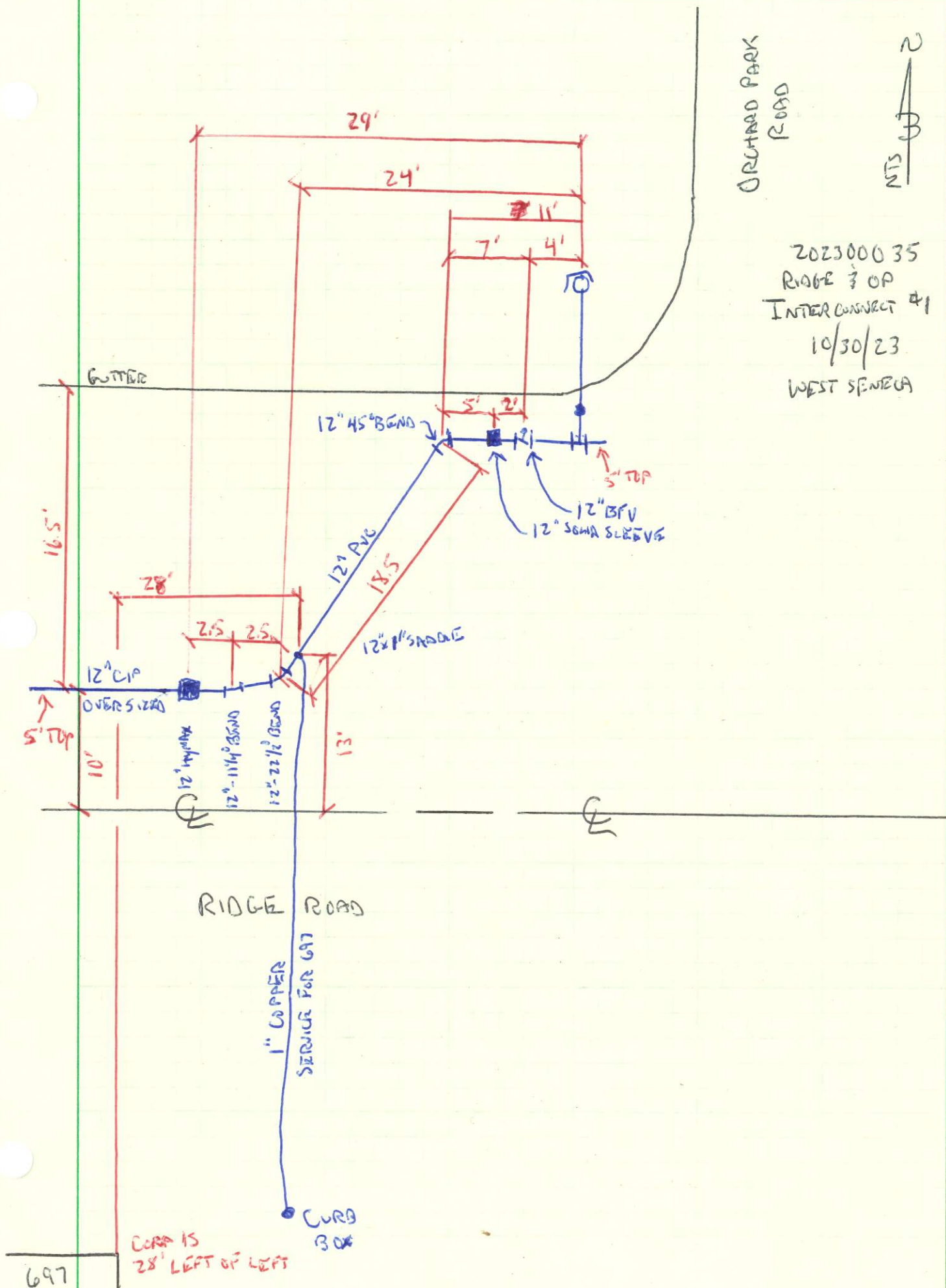
STA BZ+17  
8" 45° BEND

202306035  
RIDGE ROAD 3  
ORCHARD PARK  
ROAD  
INTERCONNECT 3  
10/13/2023

ORCHARD PARK ROAD





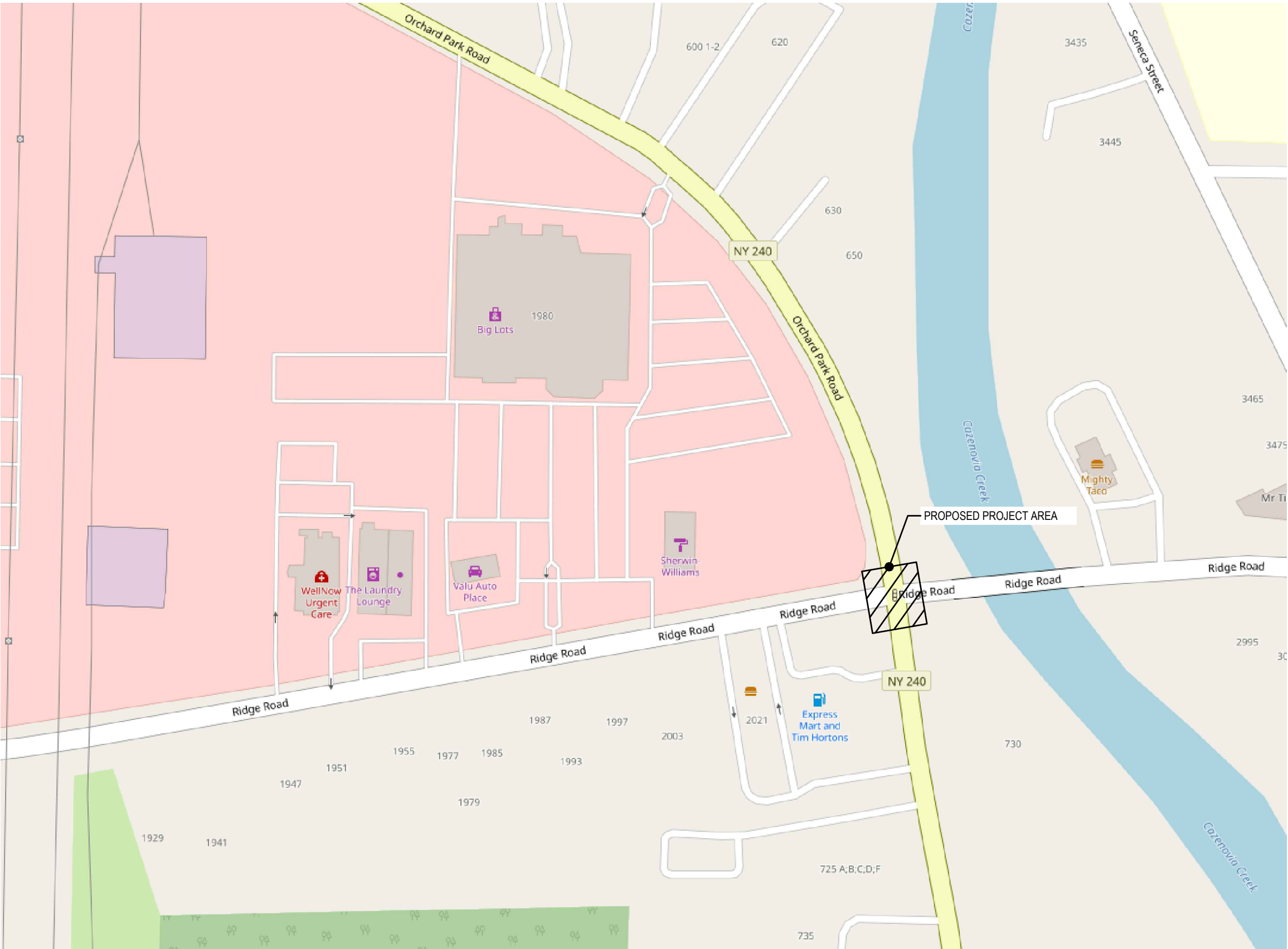


DRUMMOND PARK  
ROAD

202300035  
RIDGE 3 OF  
INTERCONNECT 41  
10/30/23  
WEST SENEGAL

$$\frac{2}{3} \sin$$





General Notes

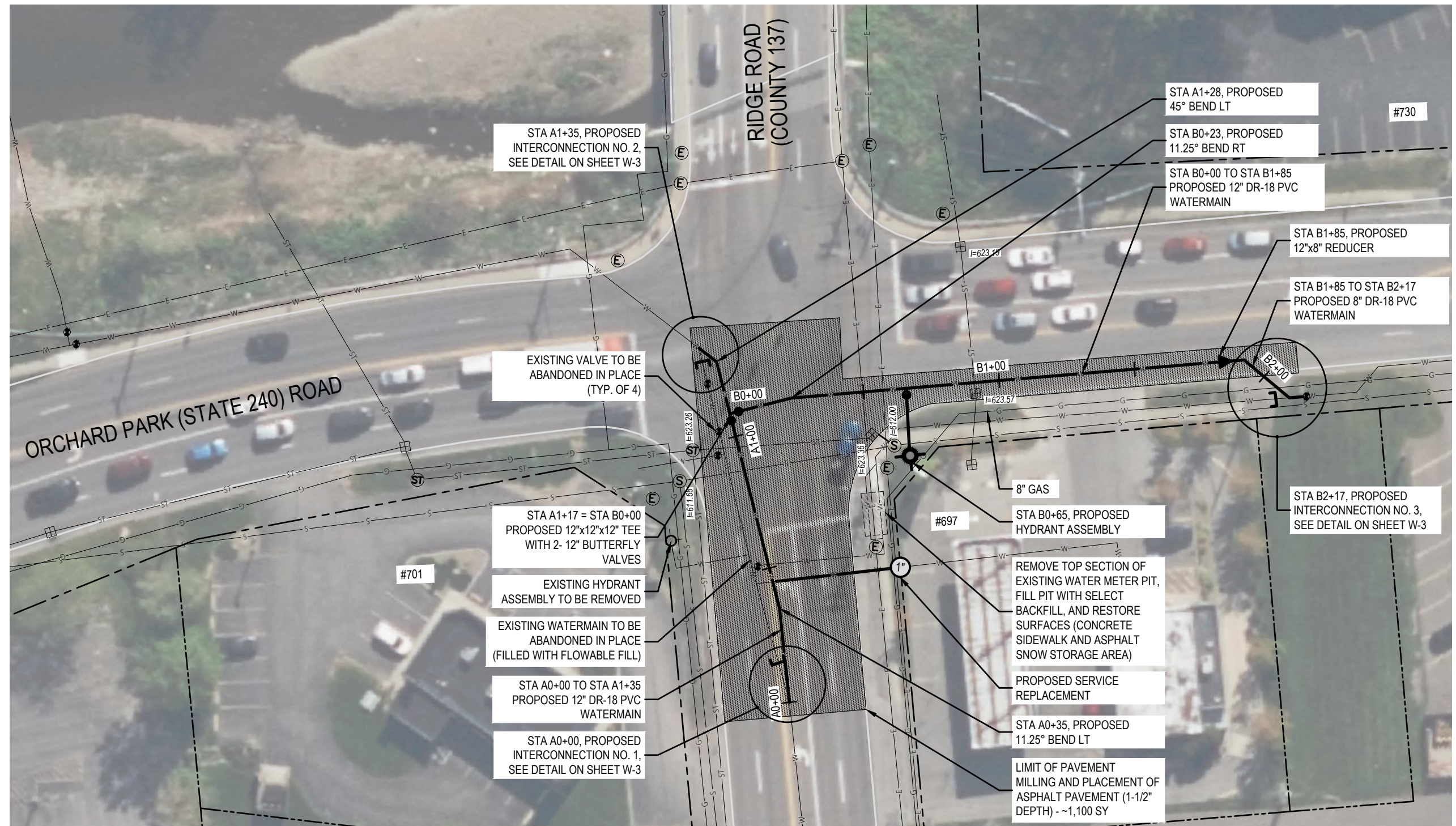
- 1.) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ERIE COUNTY WATER AUTHORITY STANDARD DETAILS AND SPECIFICATIONS
- 2.) PVC WATERMAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C605.
- 3.) WATERMAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651, HOWEVER THE TABLET METHOD IS NOT ALLOWED
- 4.) SEE STANDARD DETAIL GENERAL NOTES SECTION ON MISCELLANEOUS DETAILS
- 5.) CONTRACTOR TO PROVIDE MAINTENANCE AND PROTECTION OF TRAFFIC THROUGHOUT CONSTRUCTION
- 6.) SERVICE LOCATIONS ARE APPROXIMATIONS ONLY AND SHOULD BE FIELD CHECKED PRIOR TO CONSTRUCTION
- 7.) CONTRACTOR WILL BE REQUIRED TO COMPLETE TEST PITS AS DIRECTED BY THE ENGINEER.

Legend

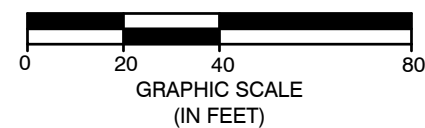
- = SANITARY MH
- = TRAFFIC MH
- = STORM MH
- = CATCH BASIN
- = UTILITY POLE
- = FIRE HYDRANT
- = WATER VALVE (PROPOSED)
- = WATER VALVE (EXISTING)
- = EXISTING WATERLINE
- = NEW WATERLINE
- = SANITARY SEWER
- = STORM SEWER
- = GAS MAIN
- = ELECTRIC
- = TELEPHONE

Name: LOCATION MAP AND LEGEND	Sheet
Date: JUNE 2023	G-1
Scale: NTS	Page: 1 of 18
Drawn/Revised By: WWW	File Name: 202300035 - ORCHARD PARK DESIGN





SCALE: 1" = 40'-0"



ALL UTILITIES ARE BASED ON BEST GIVEN INFORMATION AND ARE APPROXIMATE ONLY. SOME UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES DURING EXCAVATION BY CONTACTING UFPO PRIOR TO PERFORMING ANY EARTHWORK.

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:

PLAN 'A' AND 'B'

Date:

JUNE 2023

Scale:

AS SHOWN

Drawn/Revised By:

WWW

Sheet

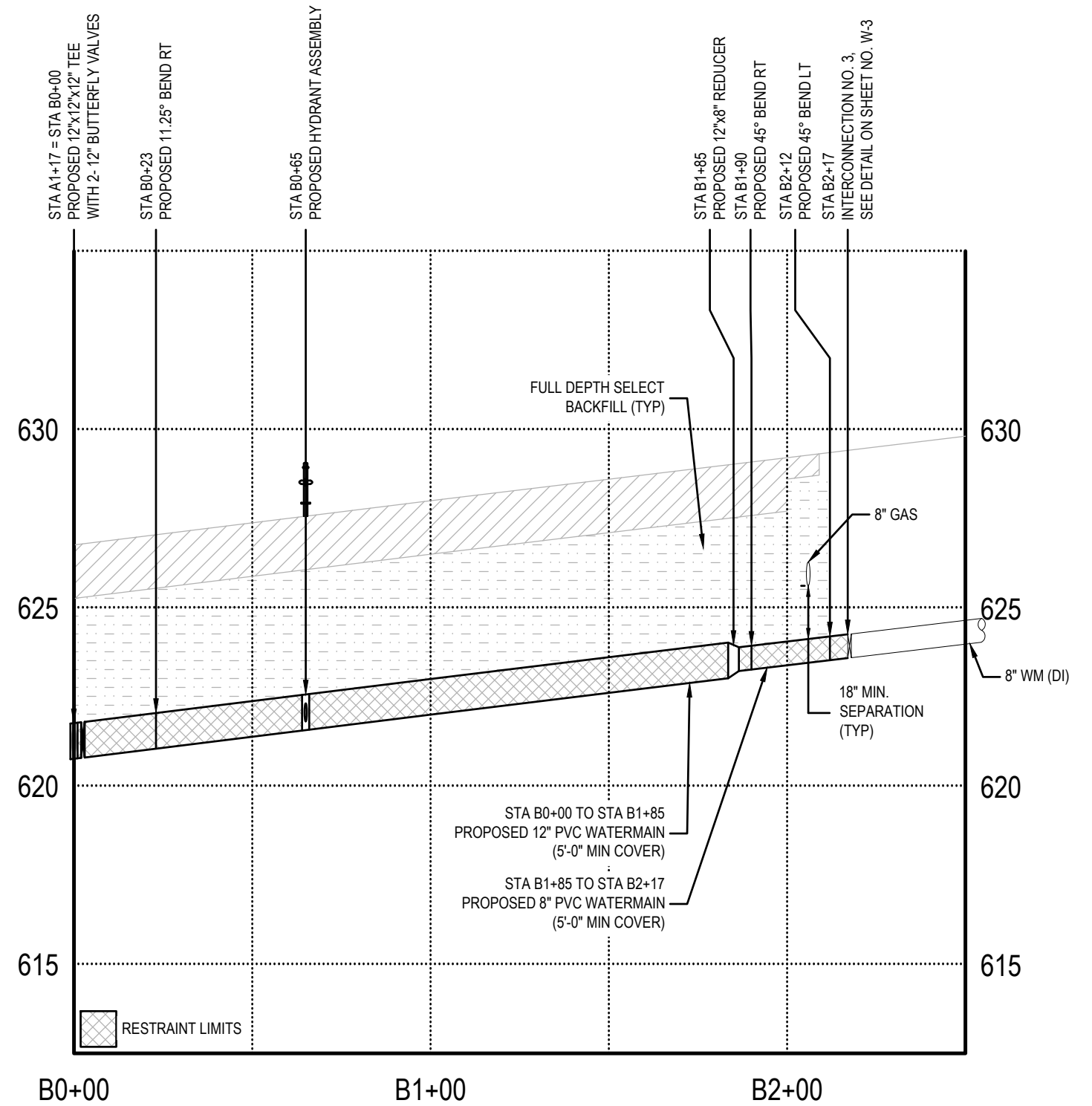
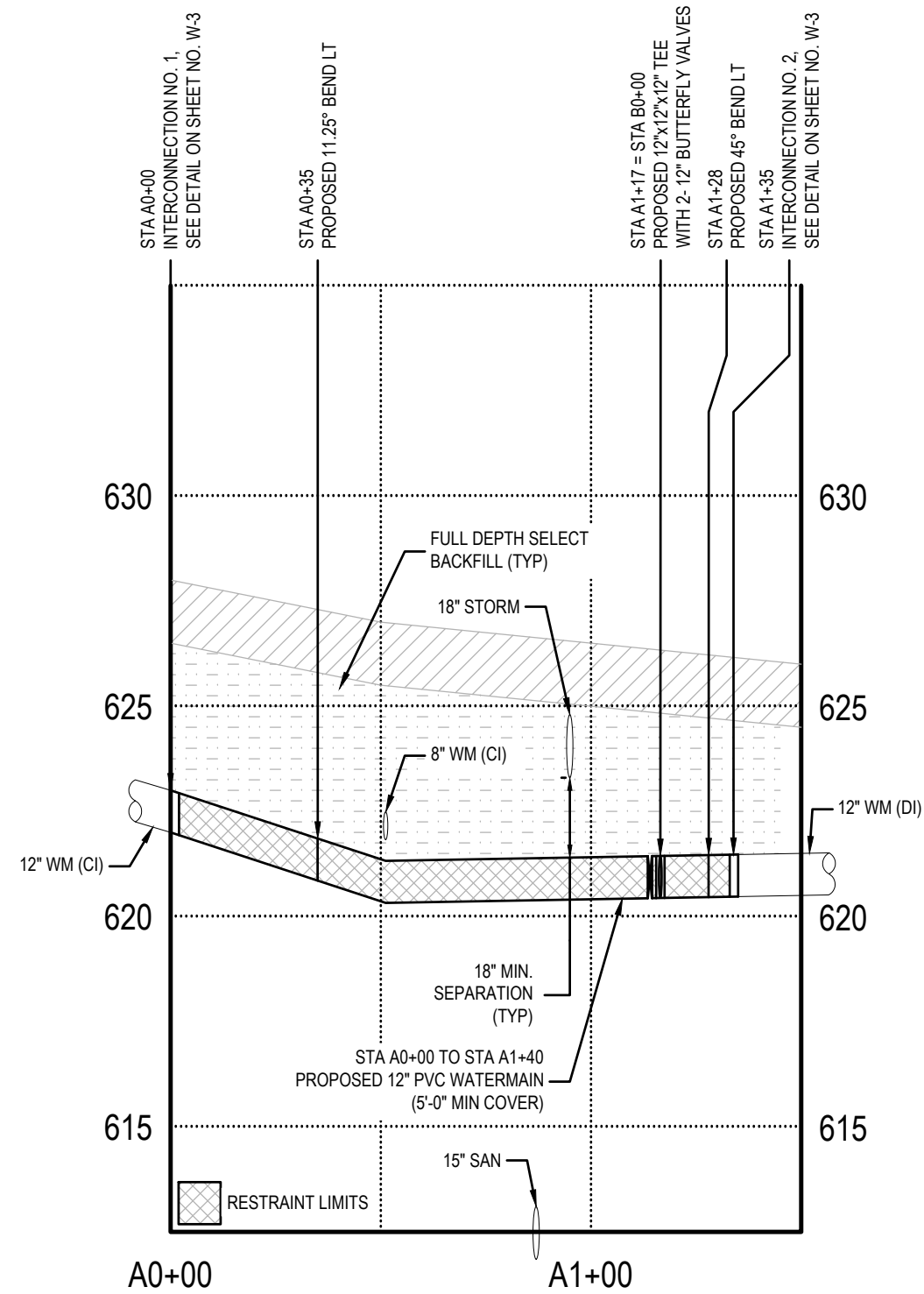
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Page: 2 of 18

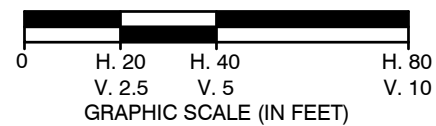
File Name:

202300035 - ORCHARD PARK DESIGN





SCALE: HORZ. 1" = 40'-0"; VERT. 1" = 5'-0"



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ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
PROFILE 'A' AND 'B'

Date:  
JUNE 2023

Scale:  
AS SHOWN

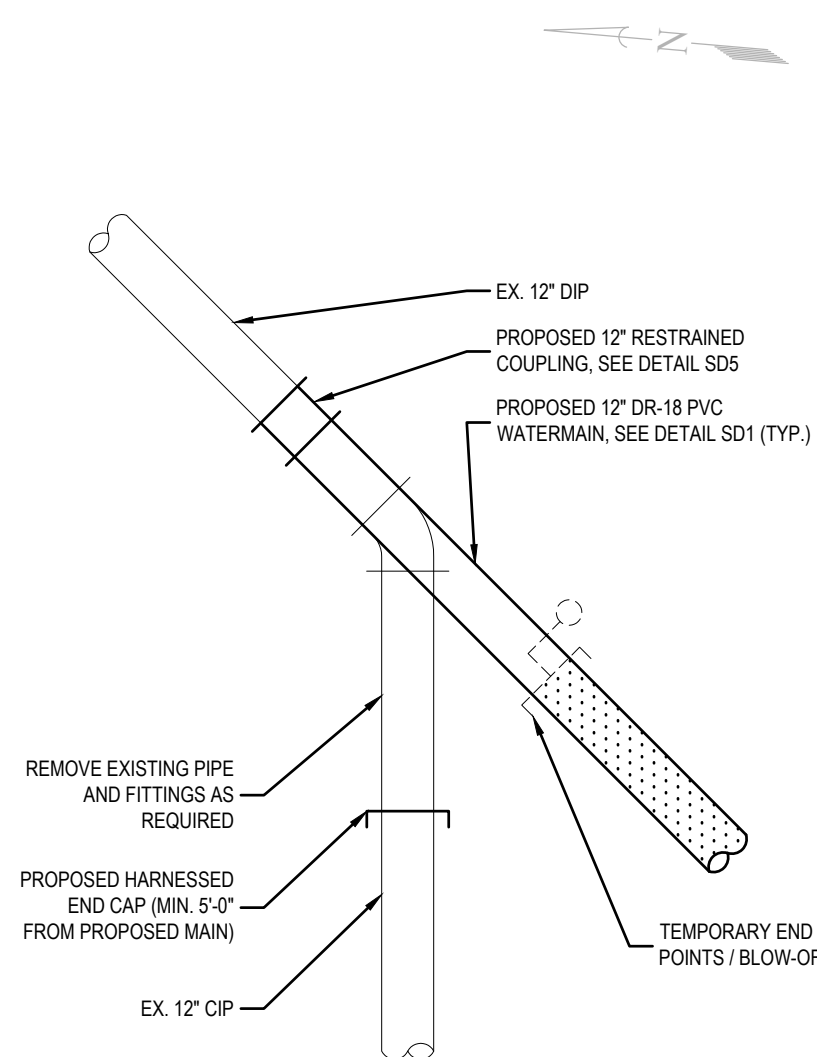
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WWW

Sheet

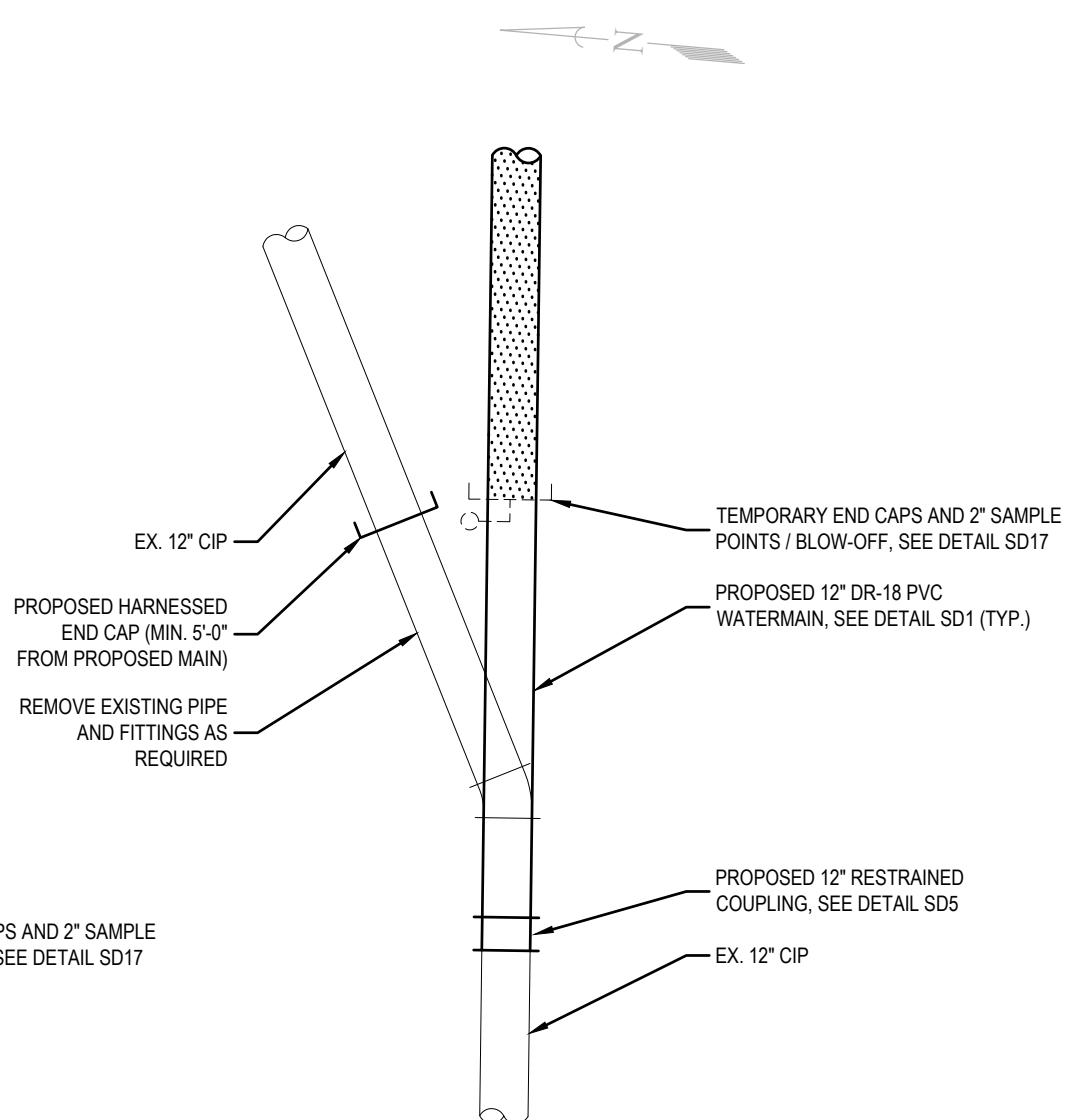
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Page: 3 of 18

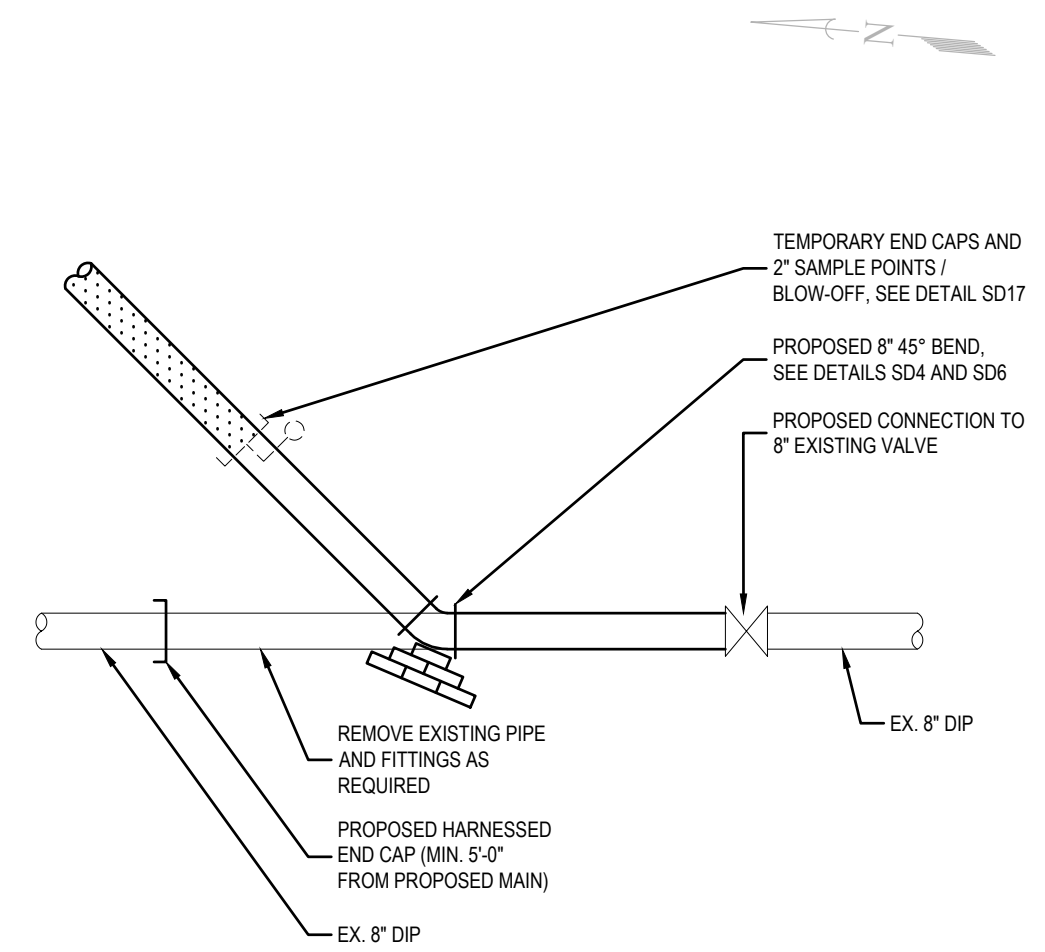
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202300035 - ORCHARD PARK DESIGN



INTERCONNECTION NO. 1

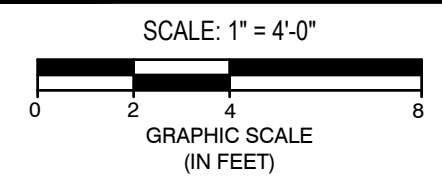


INTERCONNECTION NO. 2



INTERCONNECTION NO. 3

PRESSURE TEST AND DISINFECTION LIMITS



ALL UTILITIES ARE BASED ON BEST GIVEN INFORMATION AND ARE APPROXIMATE ONLY. SOME UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES DURING EXCAVATION BY CONTACTING UFPO PRIOR TO PERFORMING ANY EARTHWORK.

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
INTERCONNECTIONS

Date:  
JUNE 2023

Scale:  
AS SHOWN

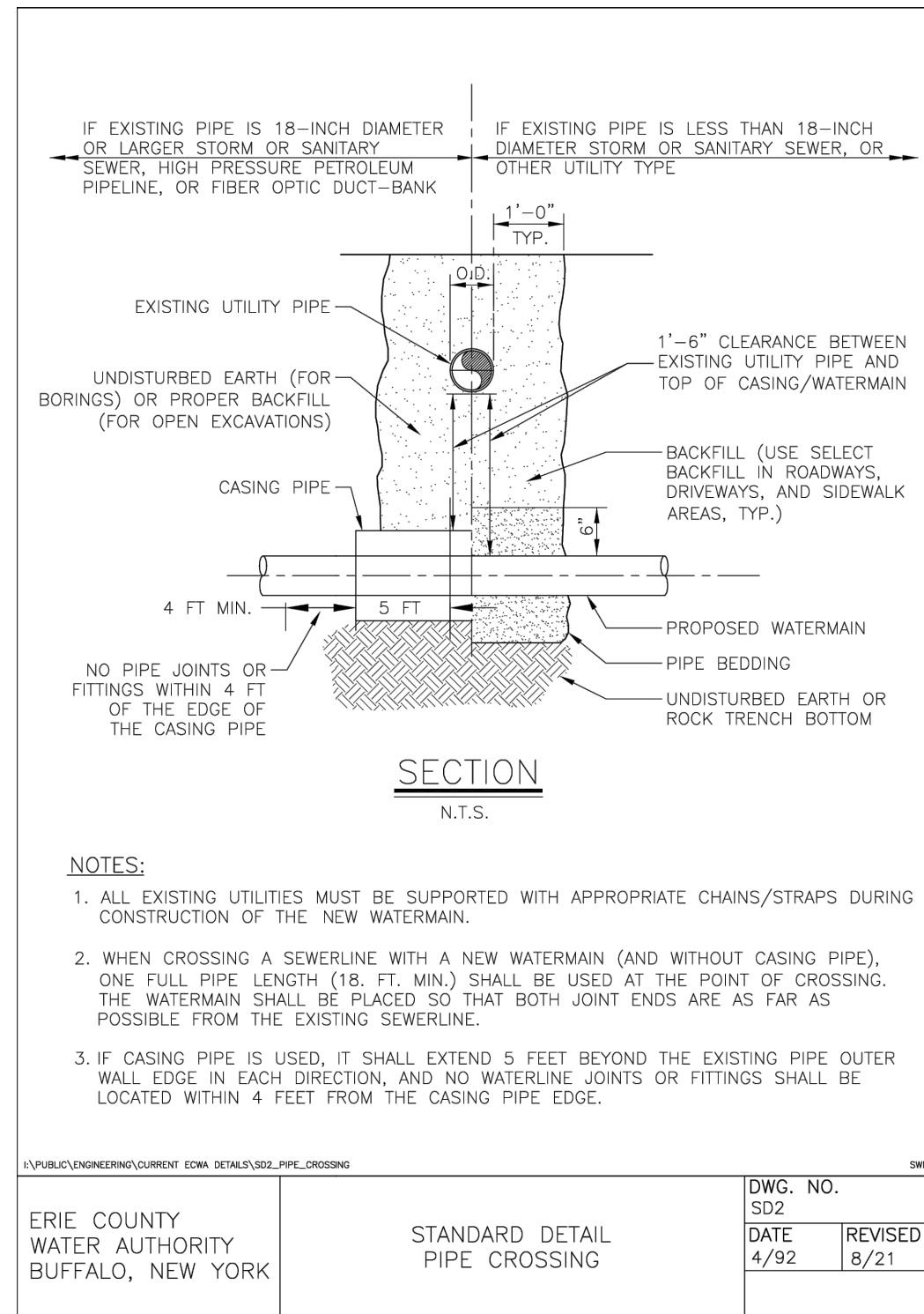
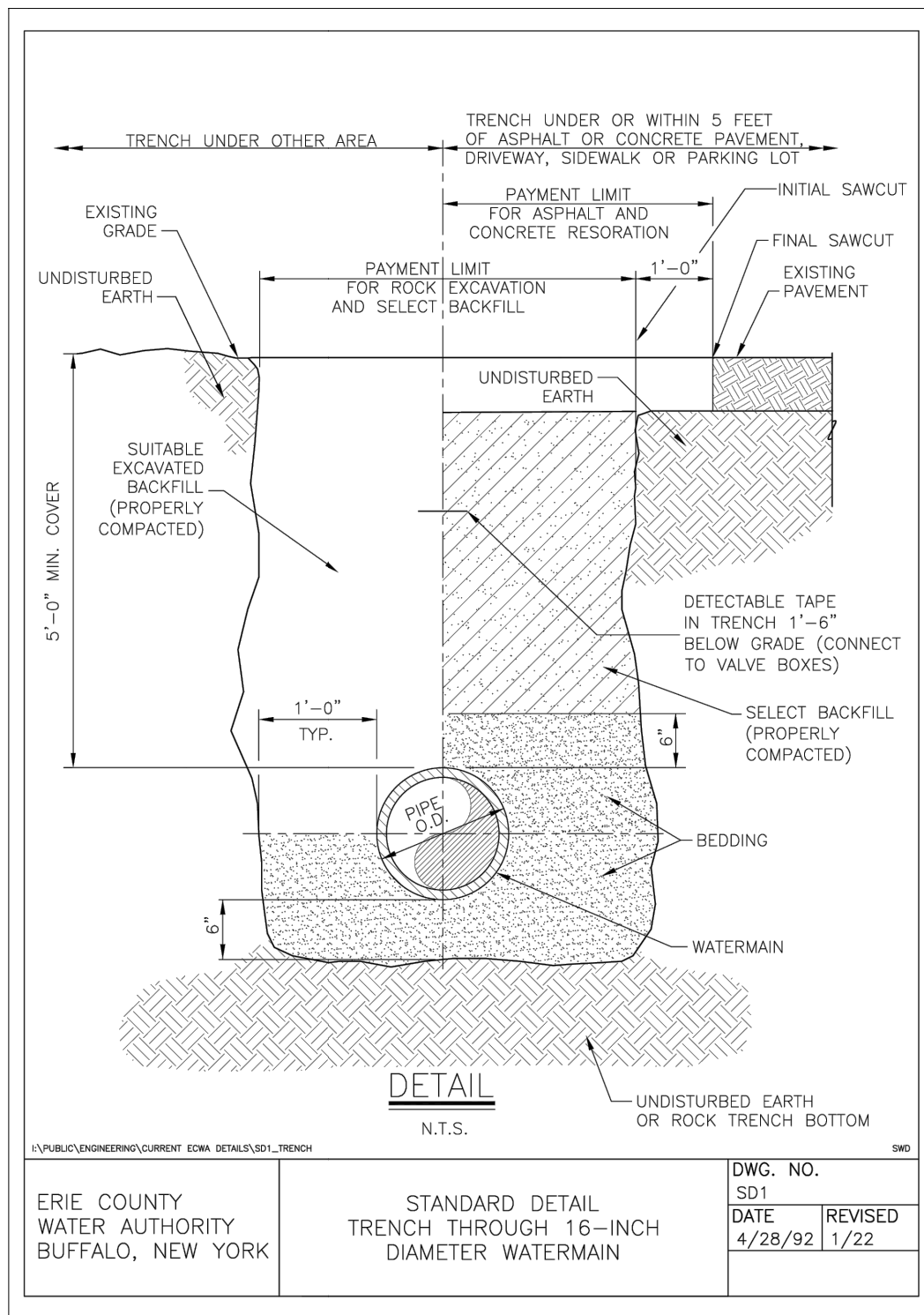
Drawn/Revised By:  
WWW

Sheet

**W-3**

Page: 4 of 18

File Name:  
202300035 - ORCHARD PARK DESIGN



Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
MISCELLANEOUS  
DETAILS

Date:  
JUNE 2023

Scale:  
AS SHOWN

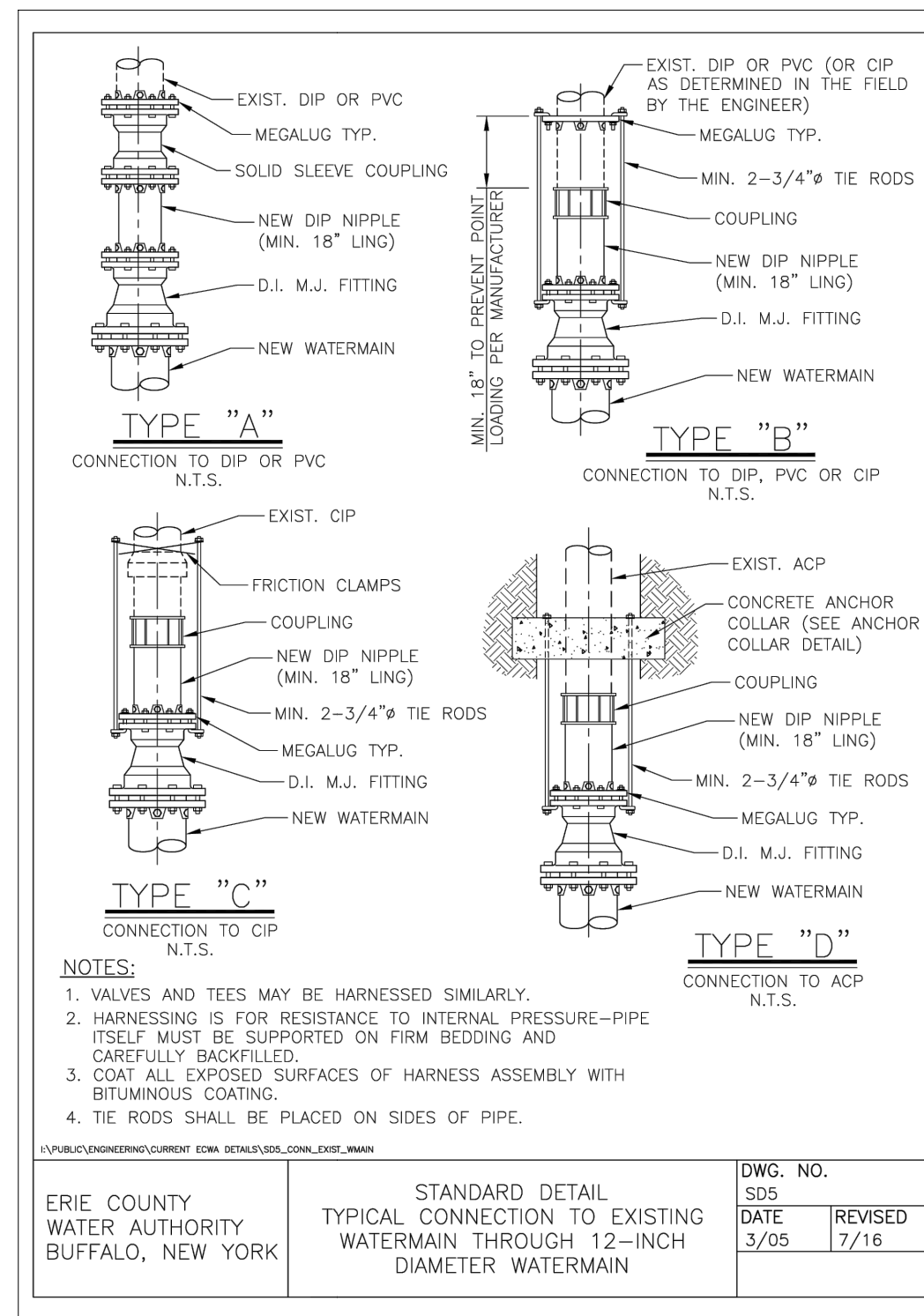
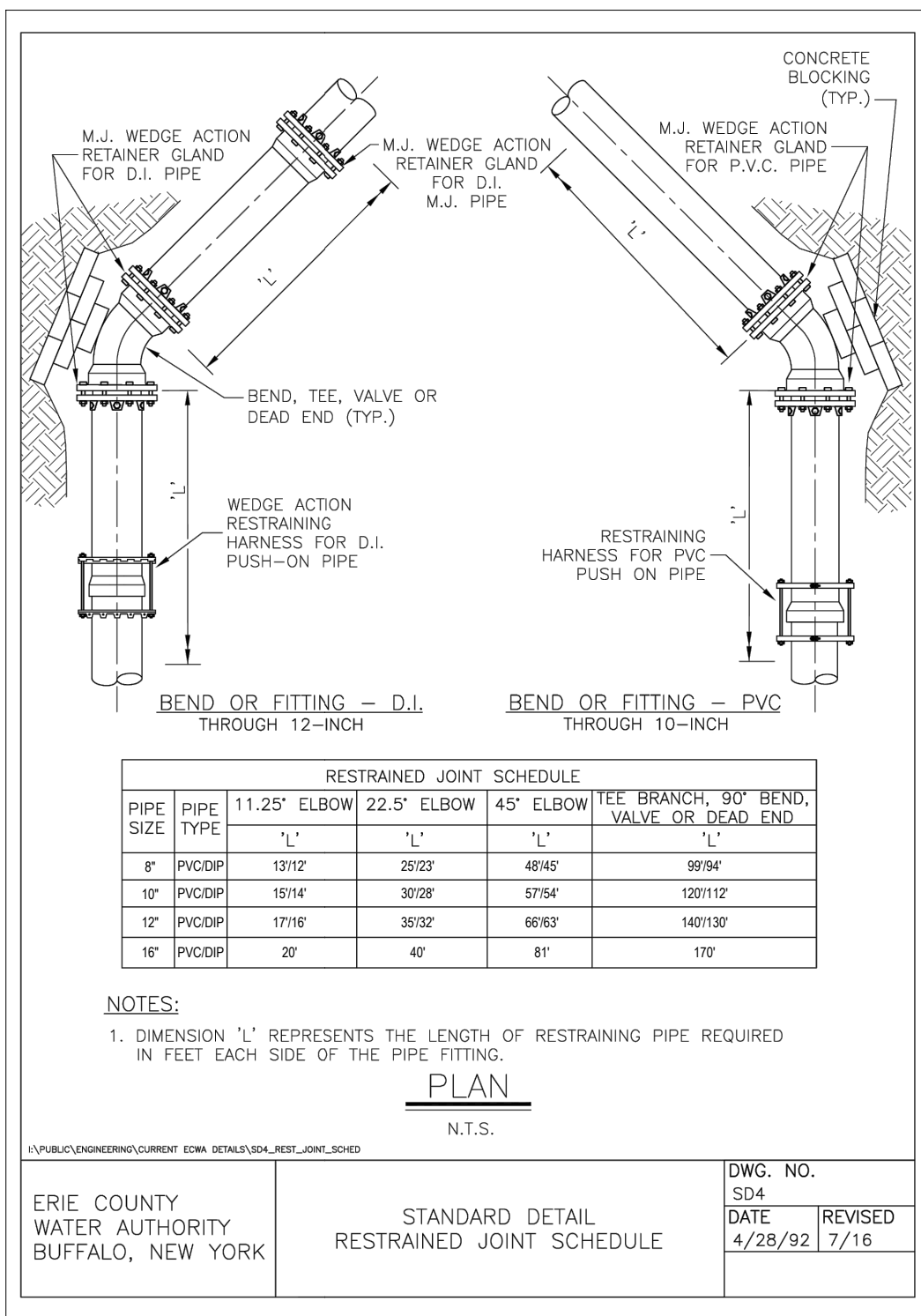
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WWW

Sheet

W-4

Page: 5 of 18

File Name:  
202300035 - ORCHARD PARK DESIGN



Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
MISCELLANEOUS  
DETAILS

Date:  
JUNE 2023

Scale:  
AS SHOWN

Drawn/Revised By:  
WWW

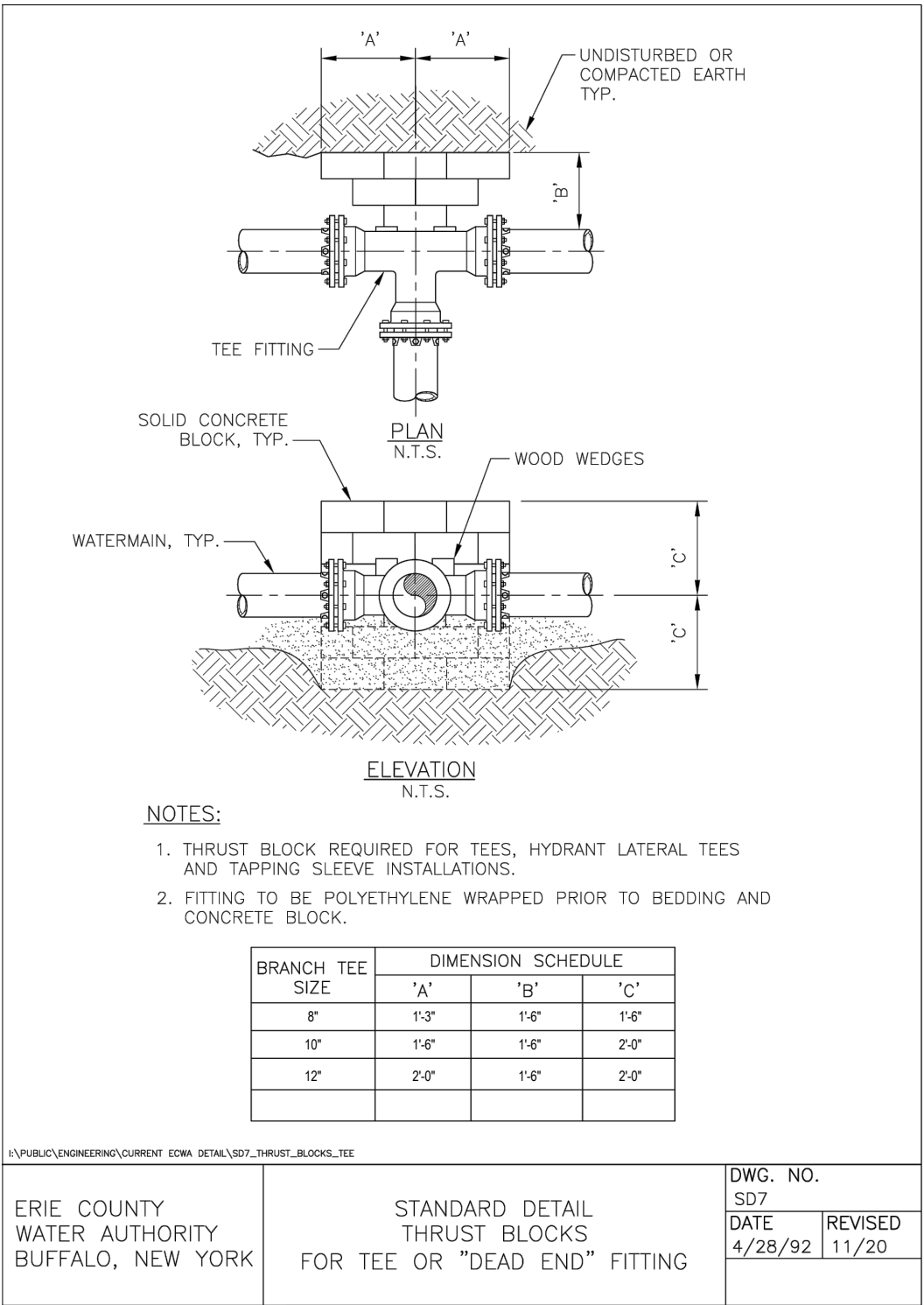
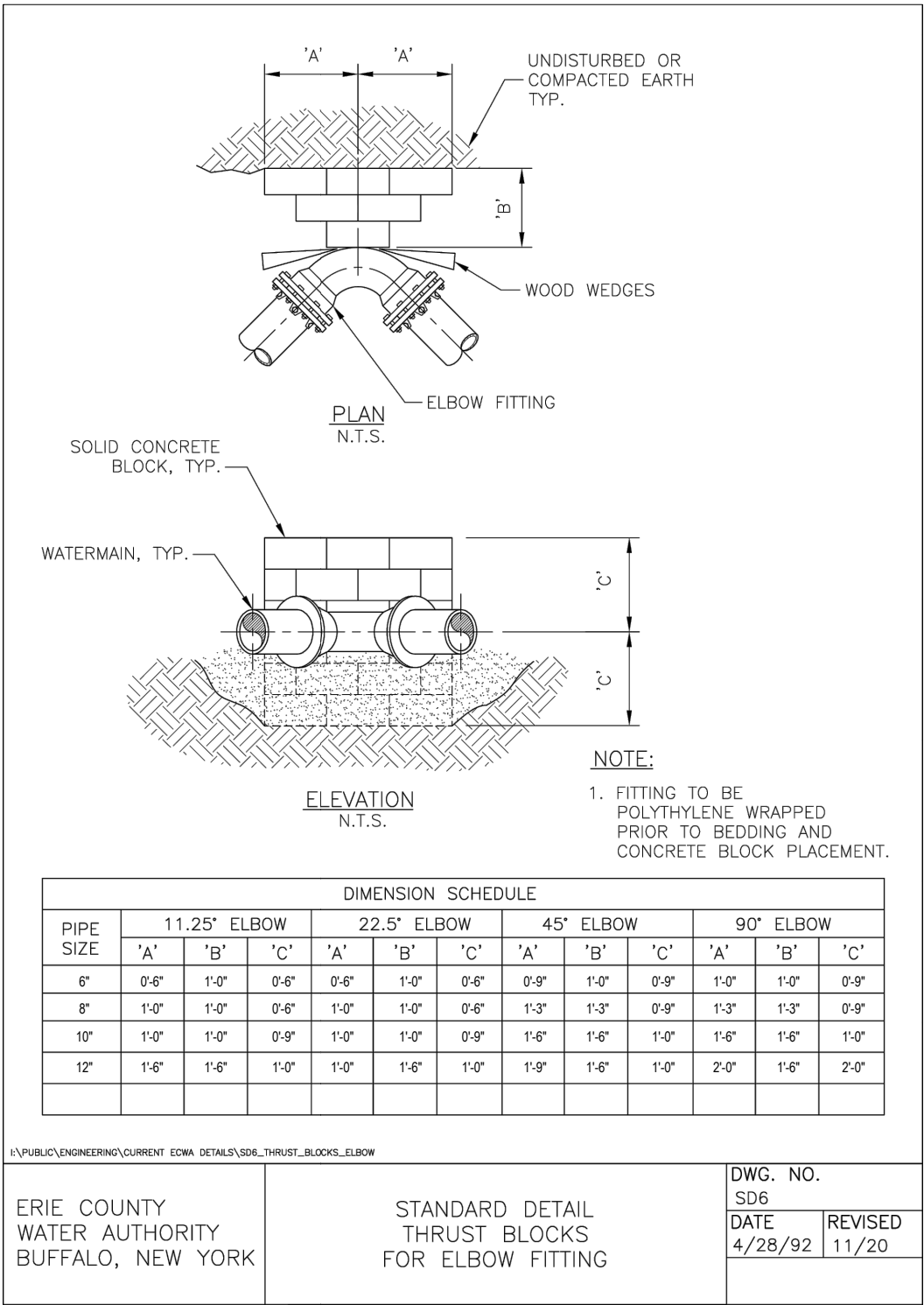
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File Name:  
202300035 - ORCHARD PARK DESIGN





Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
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TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
MISCELLANEOUS  
DETAILS

Date:  
JUNE 2023

Scale:  
AS SHOWN

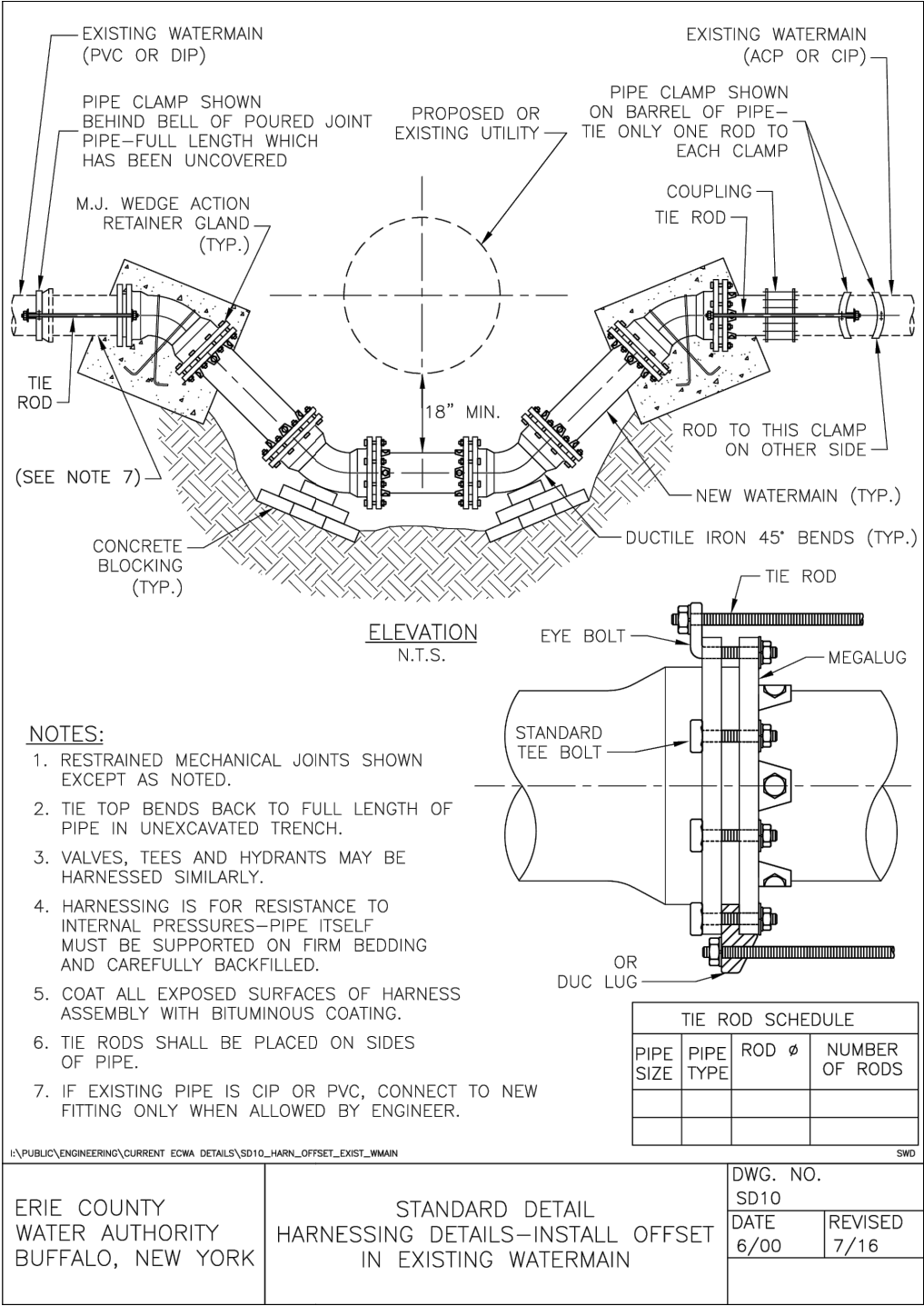
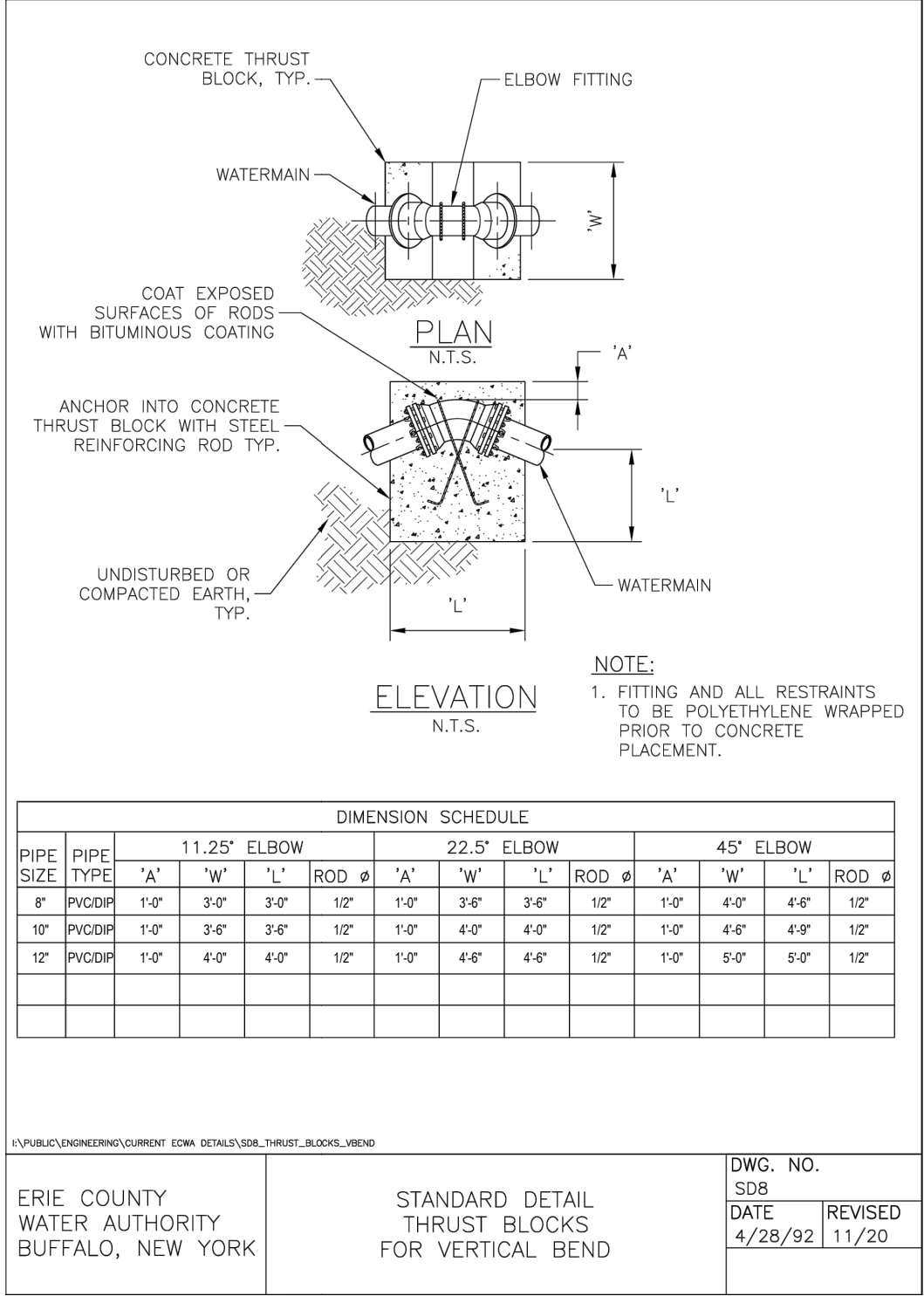
Drawn/Revised By:  
WWW

Sheet

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Page: 7 of 18

File Name:  
202300035 - ORCHARD PARK DESIGN



Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:

MISCELLANEOUS  
DETAILS

Date:

JUNE 2023

Scale:

AS SHOWN

Drawn/Revised By:

WWW

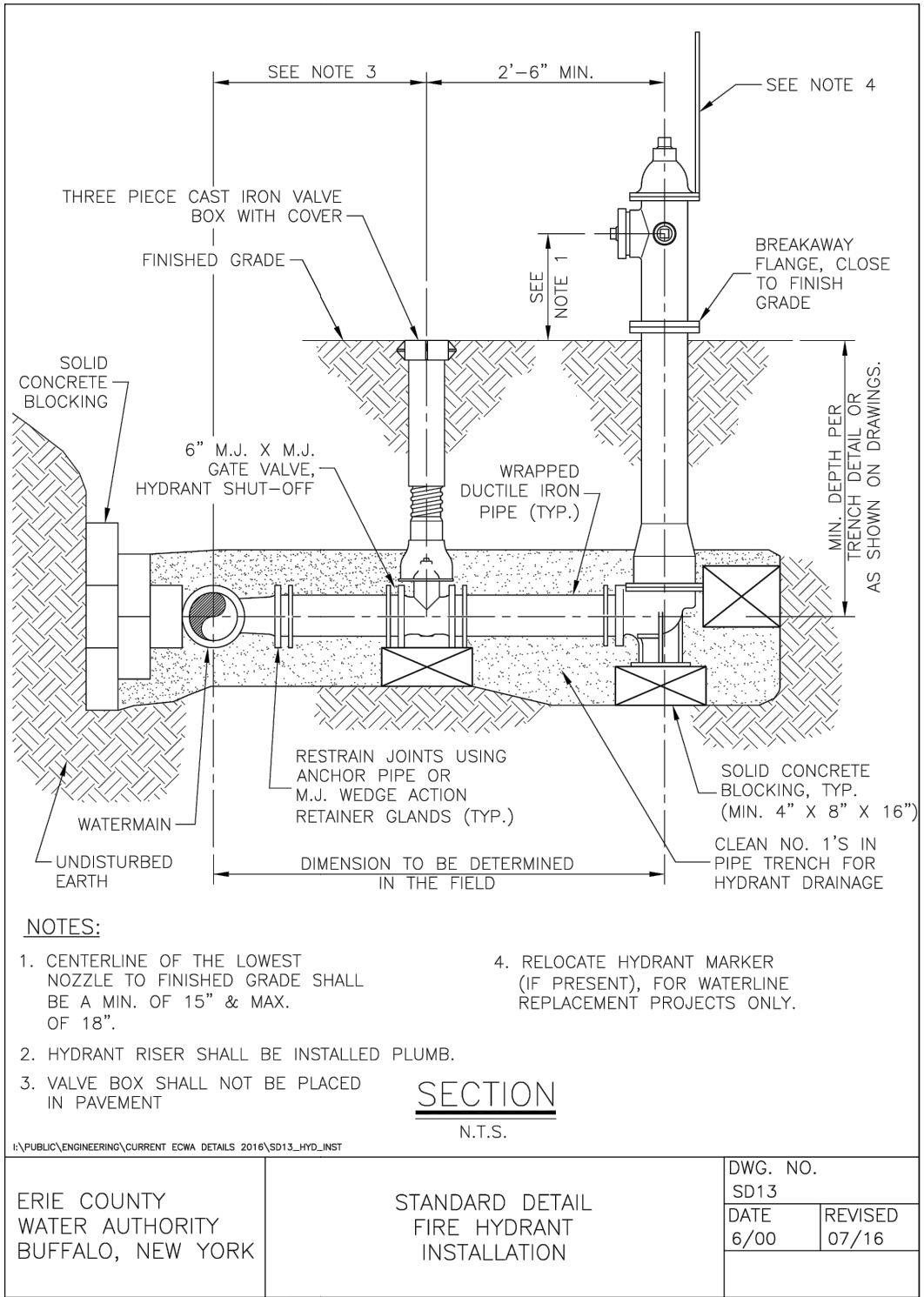
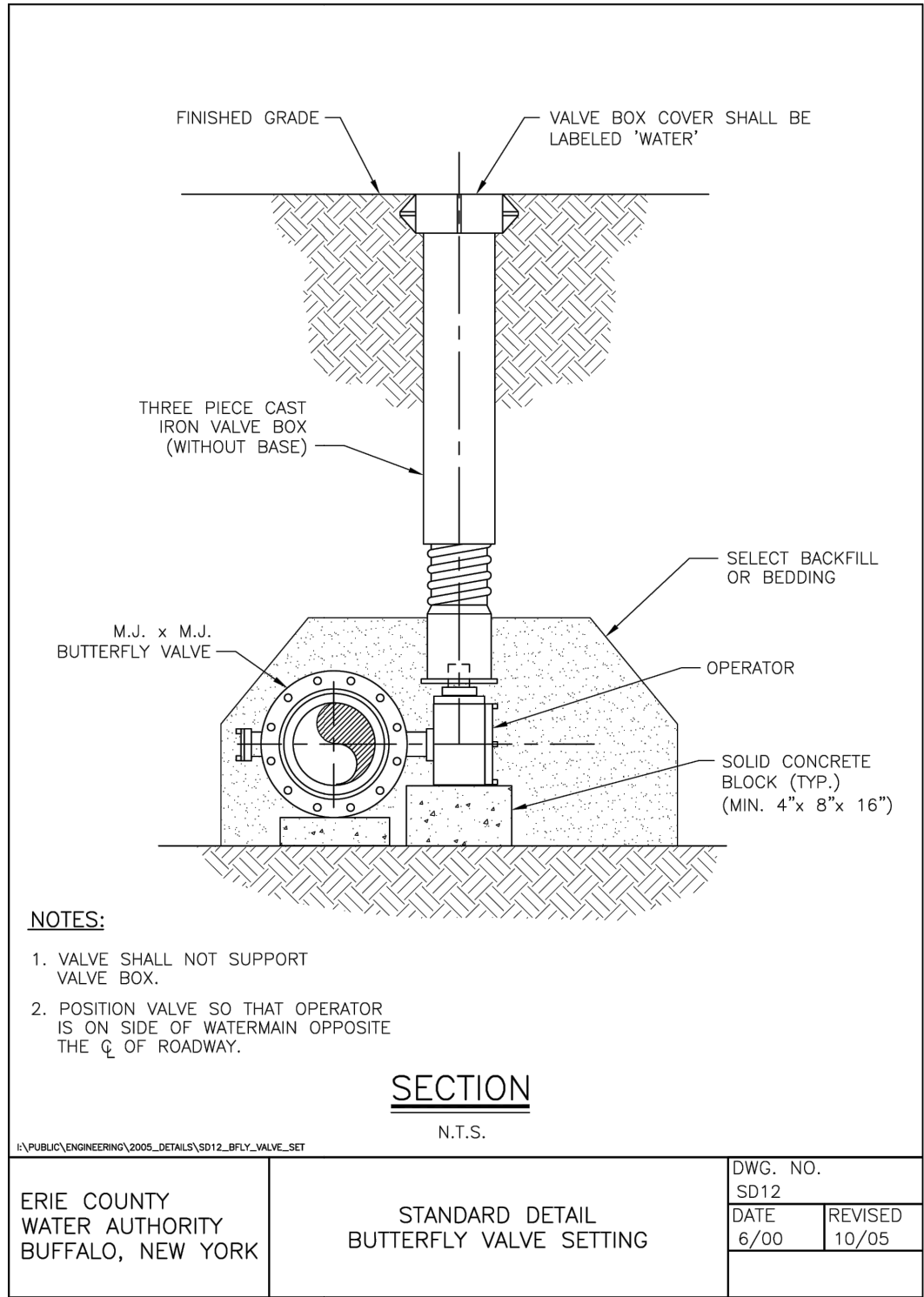
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Page: 8 of 18

File Name:

202300035 - ORCHARD PARK DESIGN



Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name: MISCELLANEOUS  
DETAILS

Date: JUNE 2023

Scale: AS SHOWN

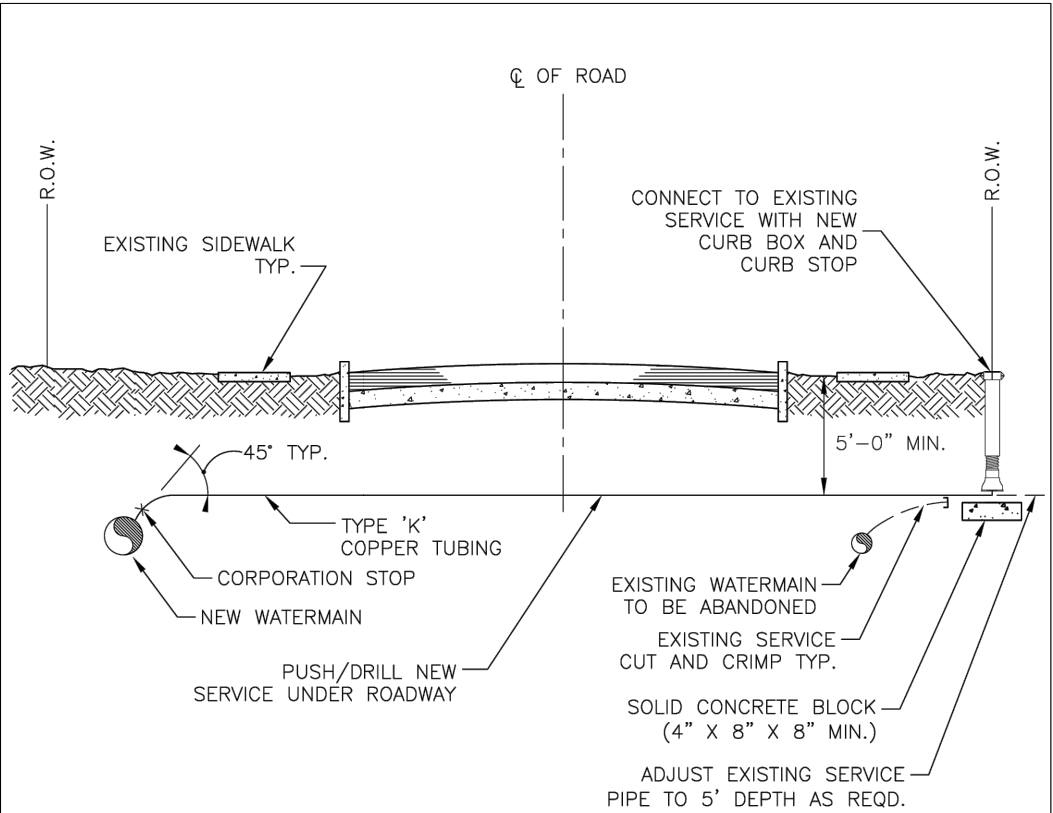
Drawn/Revised By: WWW

Sheet

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Page: 8 of 18

File Name: 202300035 - ORCHARD PARK DESIGN



NOTES:

- EXISTING SERVICES SHALL BE CRIMPED AND ABANDONED IN PLACE.
- SERVICE SADDLES SHALL BE USED UNDER THE FOLLOWING CONDITIONS:
  - WHEN SERVICES ARE PLACED ON 4" OR SMALLER PIPES.
  - WHEN SERVICES LARGER THAN 1" ARE PLACED ON A 6" PIPE.
  - WHEN SERVICES LARGER THAN 1 1/2" ARE PLACED ON AN 8" PIPE.
  - WHEN SERVICES LARGER THAN 1 1/2" ARE PLACED ON DUCTILE IRON PIPE.
  - WHEN TAPPING ALL PLASTIC (PVC) PIPE.
  - WHEN TAPPING ALL ASBESTOS-CEMENT PIPE.
- CURB BOXES SHALL NOT BE PLACED IN SIDEWALKS, DRIVEWAYS, OR CURB RAMPS.
- USE POLYETHYLENE FOR 3/4" AND 1" SERVICES GREATER THAN 100 FEET IN LENGTH, AND FOR 1-1/2" AND 2" SERVICES GREATER THAN 60 FEET IN LENGTH. ALL POLYETHYLENE SERVICES SHALL INCLUDE A TRACER WIRE FOR DETECTION BY ECWA FORCES.
- UNIONS ON COPPER TUBING ARE NOT ALLOWED UNLESS APPROVED BY ECWA PRIOR TO INSTALLATION.

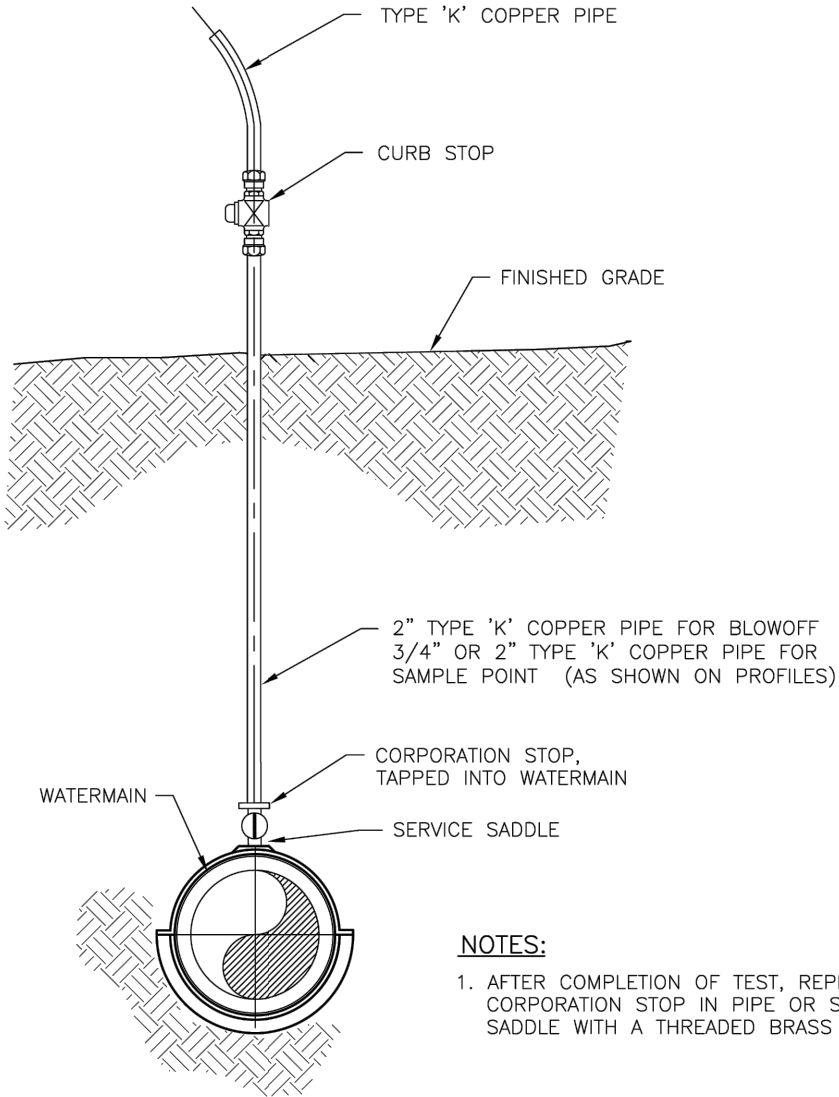
I:\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD16\_SERVICE\_REPLACE

SWD

ERIE COUNTY  
WATER AUTHORITY  
BUFFALO, NEW YORK

STANDARD DETAIL  
SERVICE REPLACEMENT/INSTALLATION

DWG. NO. SD16	
DATE 4/92	REVISED 10/20



NOTES:

- AFTER COMPLETION OF TEST, REPLACE CORPORATION STOP IN PIPE OR SERVICE SADDLE WITH A THREADED BRASS PLUG.

ELEVATION

N.T.S.

I:\PUBLIC\ENGINEERING\2005\_DETAILS\SD17\_TEMP\_BO\_SAMP\_PT

ERIE COUNTY  
WATER AUTHORITY  
BUFFALO, NEW YORK

STANDARD DETAIL  
TEMPORARY  
BLOW-OFF/SAMPLING POINT

DWG. NO. SD17	
DATE 4/28/92	REVISED 10/05

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
MISCELLANEOUS  
DETAILS

Date:  
JUNE 2023

Scale:  
AS SHOWN

Drawn/Revised By:  
WWW

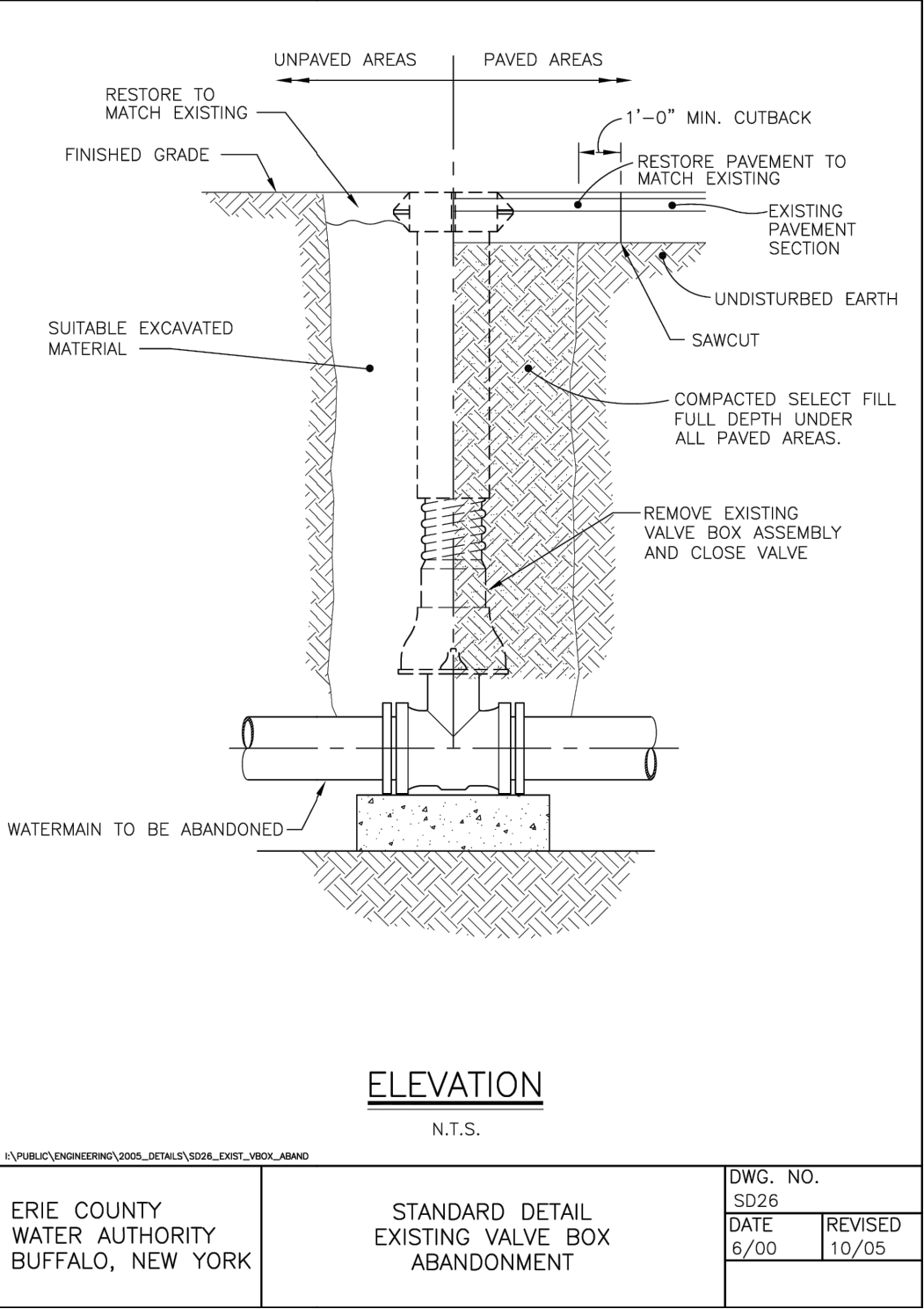
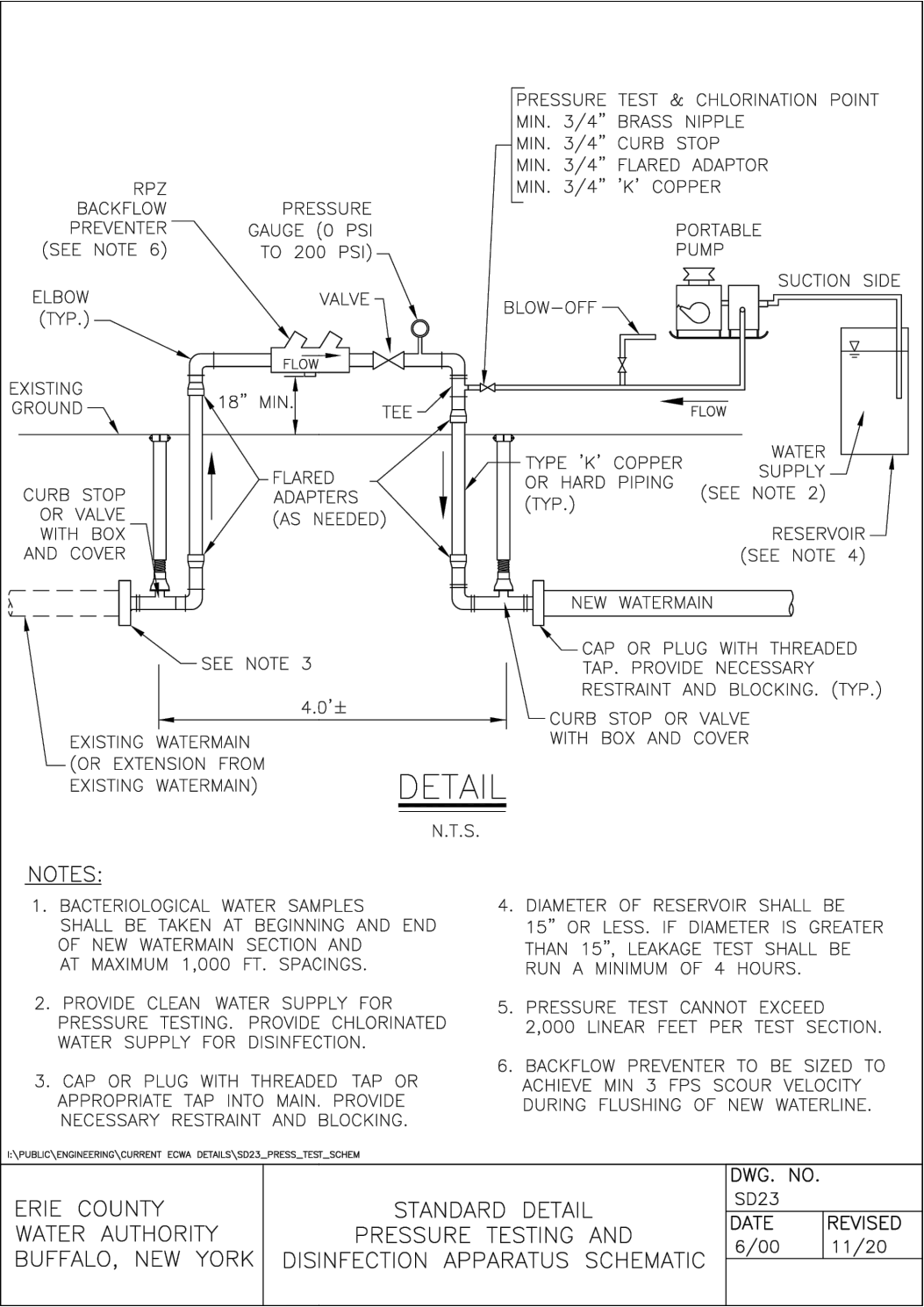
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Page: 10 of 18

File Name:  
202300035 - ORCHARD PARK DESIGN





Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:

MISCELLANEOUS  
DETAILS

Date:

JUNE 2023

Scale:

AS SHOWN

Drawn/Revised By:

WWW

Sheet

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Page: 10 of 18

File Name:

202300035 - ORCHARD PARK DESIGN

NOTES

1.

All elevations refer to USGS NAVD88 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 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.

\\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD29\_GENERAL\_NOTES

ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL GENERAL NOTES	SD29	
		DATE	REVISED
		3/05	11/21

11.

All watermain piping shall be installed with a minimum of 5'-0" 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 watermain piping through 12-inch diameter shall consist of thrust blocks and pipe joint restraint.
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 place temporary pavement (consisting of hot mix asphalt or cold patch) in 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.

\\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD30\_GENERAL\_NOTES

ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL GENERAL NOTES	DWG. NO. SD30	
		DATE	REVISED
		3/05	10/21

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:

MISCELLANEOUS  
DETAILS

Date:

JUNE 2023

Scale:

AS SHOWN

Drawn/Revised By:

WWW

Sheet

W-11

Page: 12 of 18

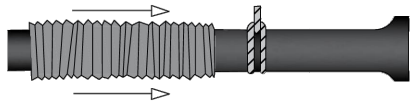
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202300035 - ORCHARD PARK DESIGN

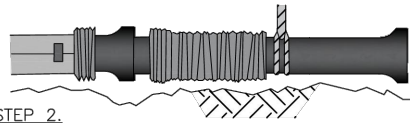
PIPE DIAMETER (in)	PIPE MATERIAL		WORKING PRESSURE (psi)	TEST PRESSURE (psi)
	Type (DIP, PVC, etc.)	Rating (Class/DR)		
8"	PVC	DR-18	100	175
12"	PVC	DR-18	100	175

I:\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD31\_PRESS\_TEST\_SCHED

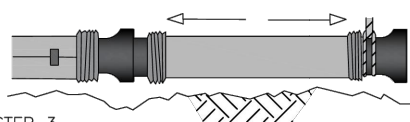
ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	PRESSURE TESTING SCHEDULE	DWG. NO. SD31	
		DATE 10/05	REVISED 11/20



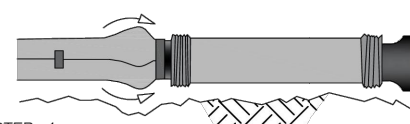
STEP 1.  
CUT A SECTION OF POLYETHYLENE TUBE  
APPROXIMATELY 2 FEET LONGER THAN THE PIPE  
SECTION. REMOVE ALL LUMPS OF CLAY, MUD,  
CINDERS, OR OTHER MATERIALS THAT MIGHT HAVE  
ACCUMULATED ON THE PIPE SURFACE DURING  
STORAGE. SLIP THE POLYETHYLENE TUBE  
ACCORDION-FASHION ON THE END OF THE PIPE.  
PULL BACK THE OVERHANGING END OF THE TUBE  
UNTIL IT CLEARS THE PIPE END.



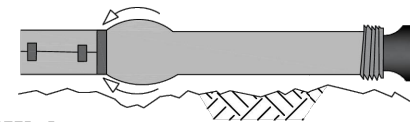
STEP 2.  
DIG A SHALLOW BELL HOLE IN THE TRENCH BOTTOM  
AT THE JOINT LOCATION TO FACILITATE INSTALLATION  
OF THE POLYETHYLENE TUBE. LOWER THE PIPE INTO  
THE TRENCH AND MAKE UP THE PIPE JOINT WITH  
THE PROCEEDING SECTION OF PIPE.



STEP 3.  
MOVE THE CABLE TO THE BELL END OF THE PIPE  
AND LIFT THE PIPE SLIGHTLY TO PROVIDE ENOUGH  
CLEARANCE TO EASILY SLIDE THE TUBE. SPREAD  
THE TUBE OVER THE ENTIRE BARREL OF THE PIPE.  
NOTE: MAKE SURE THAT NO DIRT OR OTHER  
BEDDING MATERIAL BECOMES TRAPPED BETWEEN  
THE WRAP AND THE PIPE.



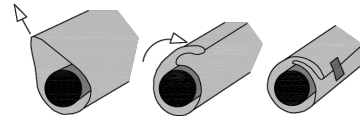
STEP 4.  
MAKE THE OVERLAP OF POLYETHYLENE TUBE BY  
PULLING BACK THE BUNCHED POLYETHYLENE FROM  
THE PRECEDING LENGTH OF PIPE AND SECURING  
IT IN PLACE. NOTE: THE POLYETHYLENE MAY BE  
SECURED IN PLACE BY USING TAPE OR PLASTIC  
TIE STRAPS.



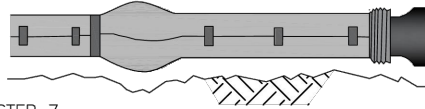
STEP 5.  
OVERLAP THE SECURED TUBE END WITH THE END  
OF THE NEW PIPE SECTION, FOR A MINIMUM OF  
12 INCHES. SECURE THE NEW TUBE END IN  
PLACE. PIPE JOINT SHOULD HAVE TWO LAYERS OF  
POLYWRAP, EACH SECURED IN PLACE.

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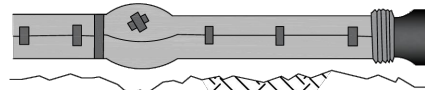
ERIE COUNTY WATER AUTHORITY BUFFALO, NEW YORK	STANDARD DETAIL POLYETHYLENE ENCASEMENT OF DUCTILE IRON PIPE	DWG. NO. SD32	
		DATE 06/16	REVISED 02/19



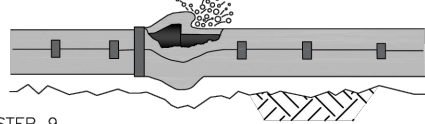
STEP 6.  
TAKE UP THE SLACK IN THE TUBE ALONG THE  
BARREL OF THE PIPE TO MAKE A SNUG, BUT  
NOT TIGHT, FIT. FOLD EXCESS POLYETHYLENE  
BACK OVER THE TOP OF THE PIPE.



STEP 7.  
SECURE THE FOLD AT SEVERAL LOCATIONS  
ALONG THE PIPE BARREL (APPROXIMATELY EVERY  
3 FEET, MAXIMUM OF 5 FEET).



STEP 8.  
REPAIR ALL THE SMALL RIPS, TEARS, OR OTHER  
TUBE DAMAGE WITH ADHESIVE TAPE. IF THE  
POLYETHYLENE IS BADLY DAMAGED, REPAIR THE  
DAMAGED AREA WITH A SHEET OF POLYETHYLENE  
AND SEAL THE EDGES OF THE REPAIR WITH  
ADHESIVE TAPE.



STEP 9.  
CAREFULLY BACKFILL THE TRENCH ACCORDING TO  
THE PROCEDURES IN AWWA C600 STANDARD. TO  
PREVENT DAMAGE DURING BACKFILLING ALLOW  
ADEQUATE SLACK IN THE TUBE AT THE JOINT.  
BACKFILL SHOULD BE FREE OF CINDERS, ROCKS,  
BOULDERS, NAILS, STICKS, OR OTHER MATERIALS  
THAT MIGHT DAMAGE THE POLYETHYLENE. AVOID  
DAMAGING THE POLYETHYLENE WHEN USING  
TAMPING DEVICES.

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.

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:

MISCELLANEOUS  
DETAILS

Date:

JUNE 2023

Scale:

AS SHOWN

Drawn/Revised By:

WWW

Sheet

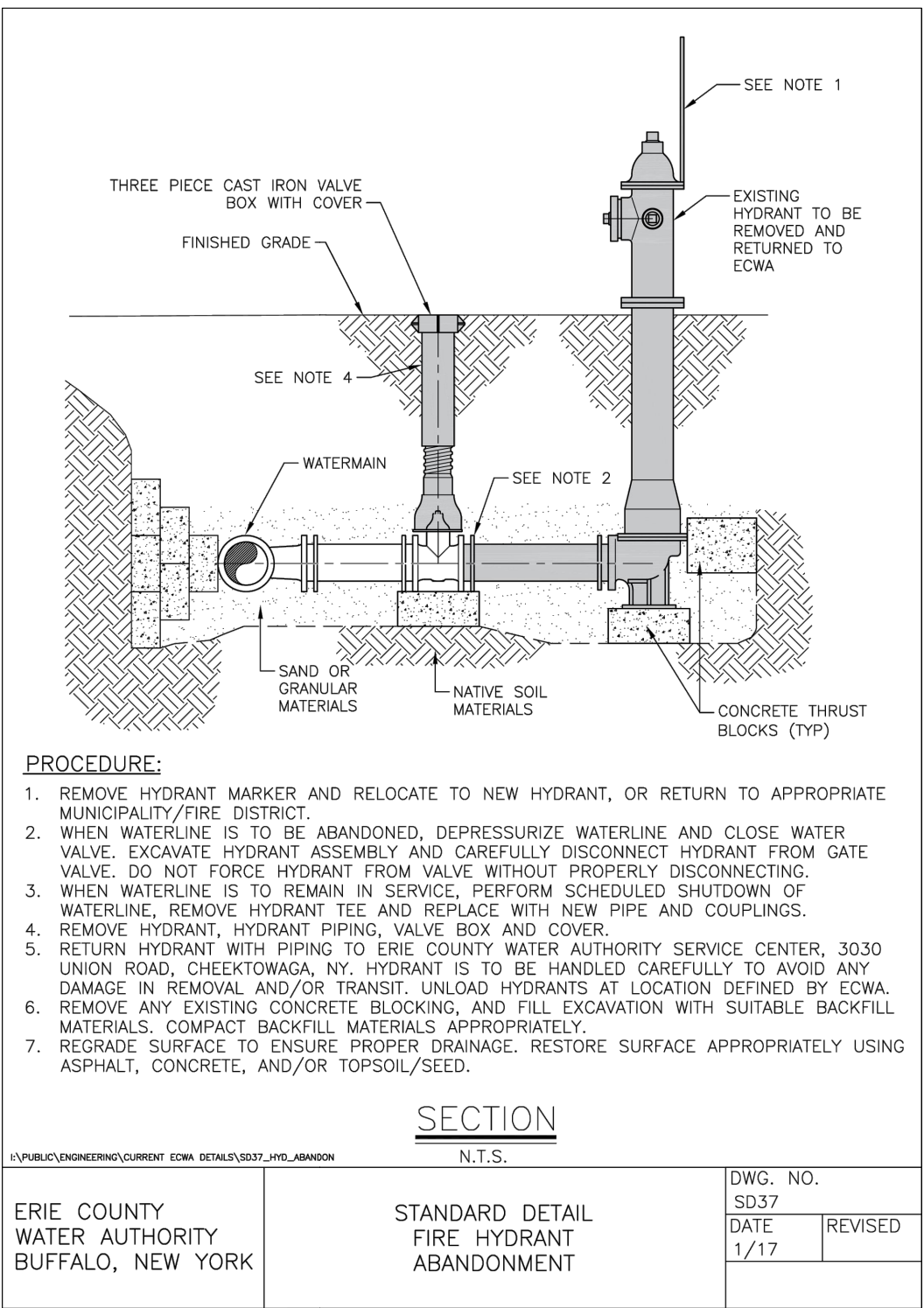
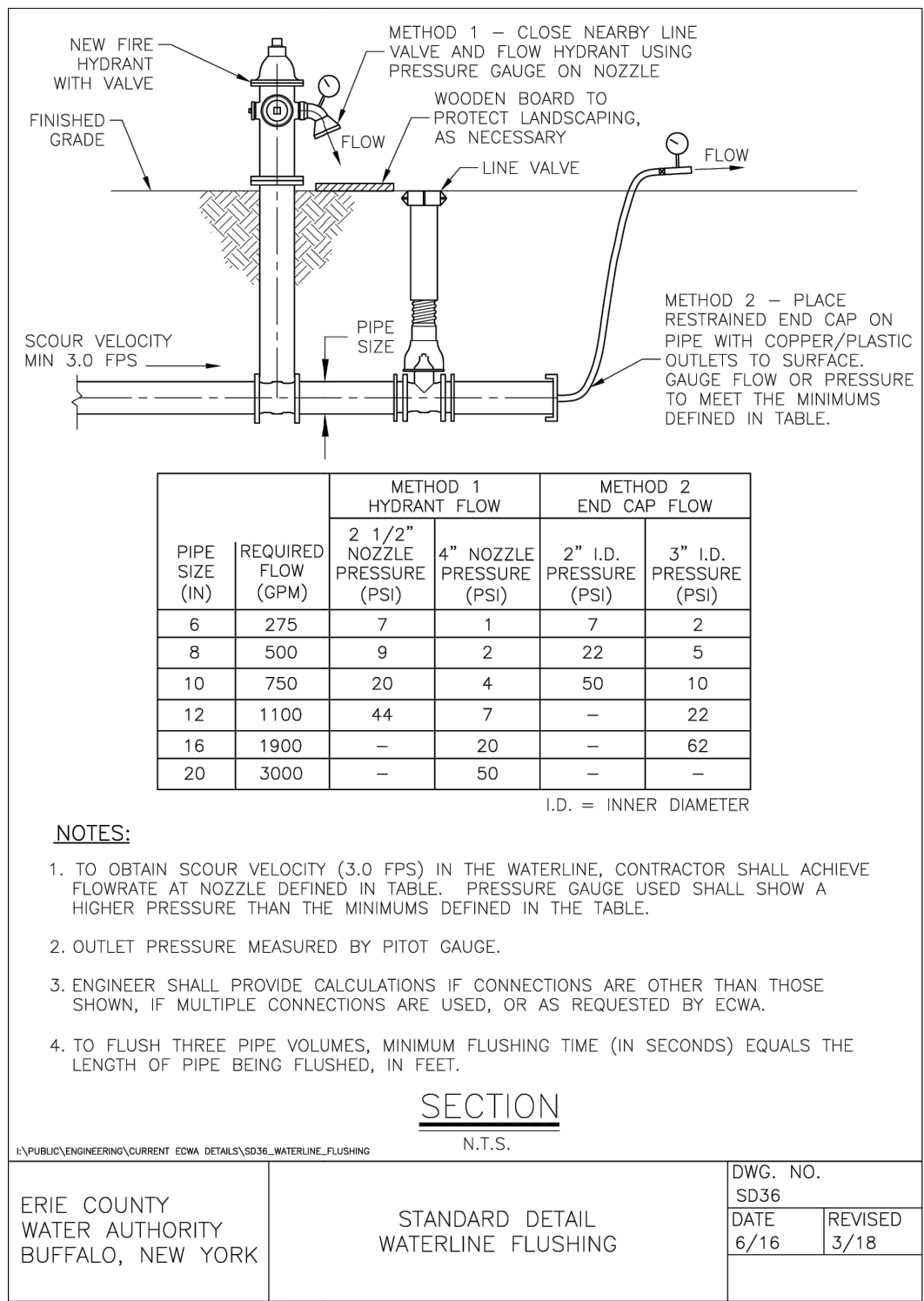
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File Name:

202300035 - ORCHARD PARK DESIGN





Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name: MISCELLANEOUS  
DETAILS

Date: JUNE 2023

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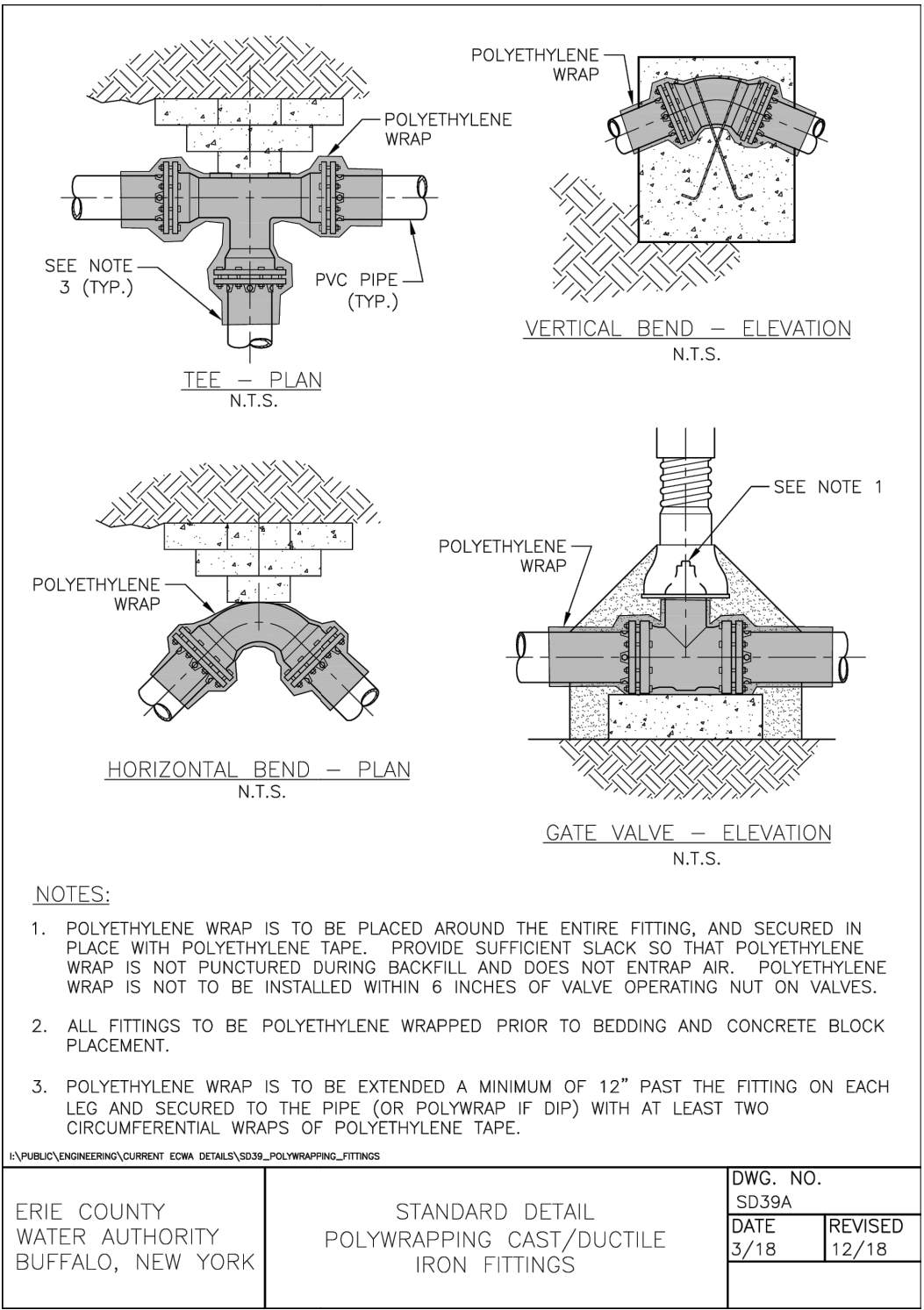
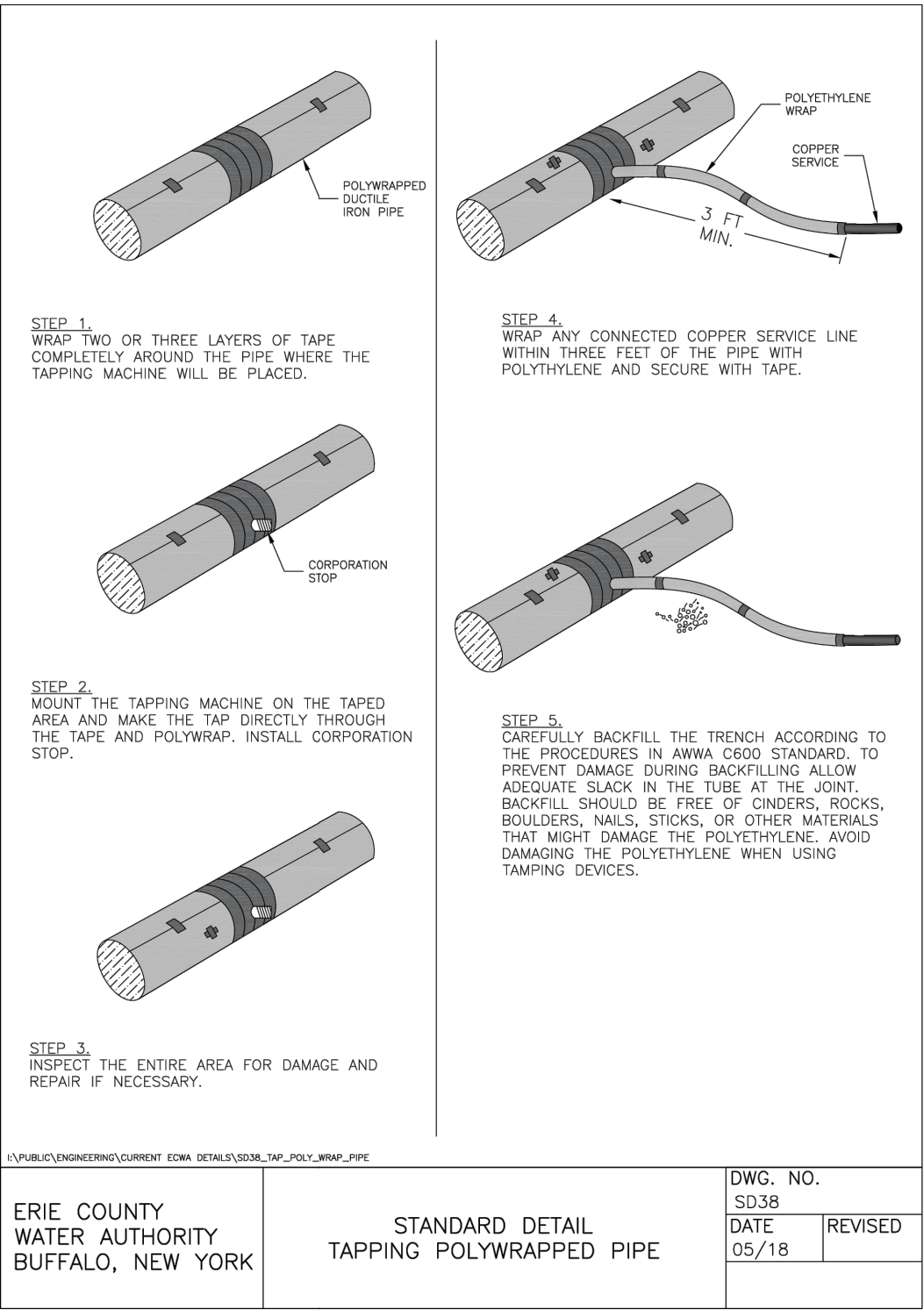
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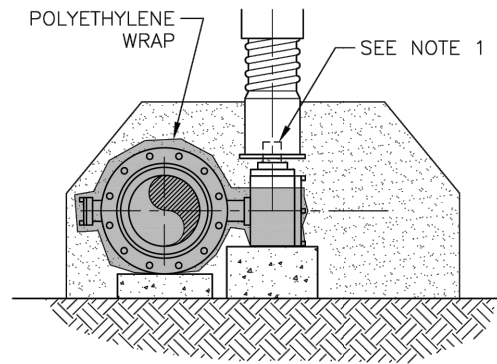
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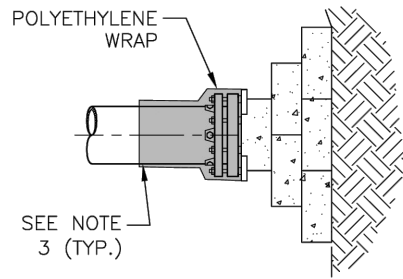
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202300035 - ORCHARD PARK DESIGN

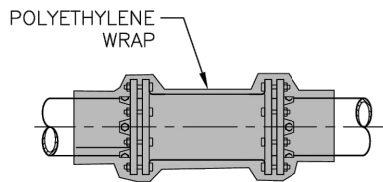




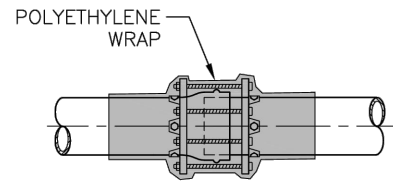
BUTTERFLY VALVE — ELEVATION  
N.T.S.



END CAP / PLUG  
N.T.S.



SOLID SLEEVE OR  
RESTRAINED COUPLING  
N.T.S.



EXTERNAL JOINT RESTRAINT  
N.T.S.

**NOTES:**

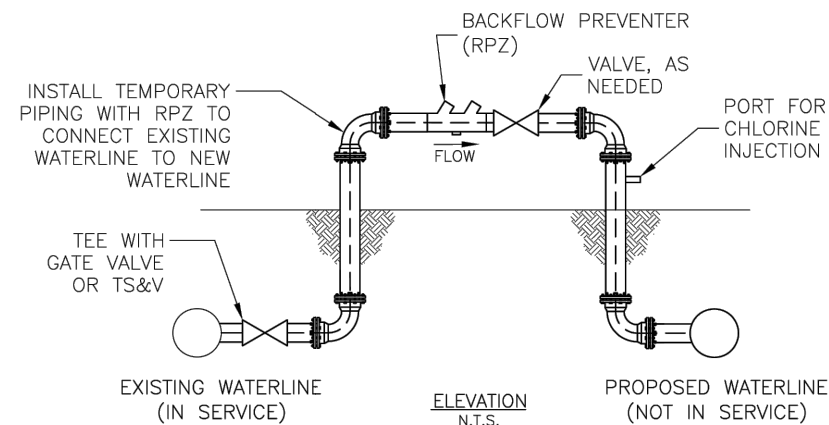
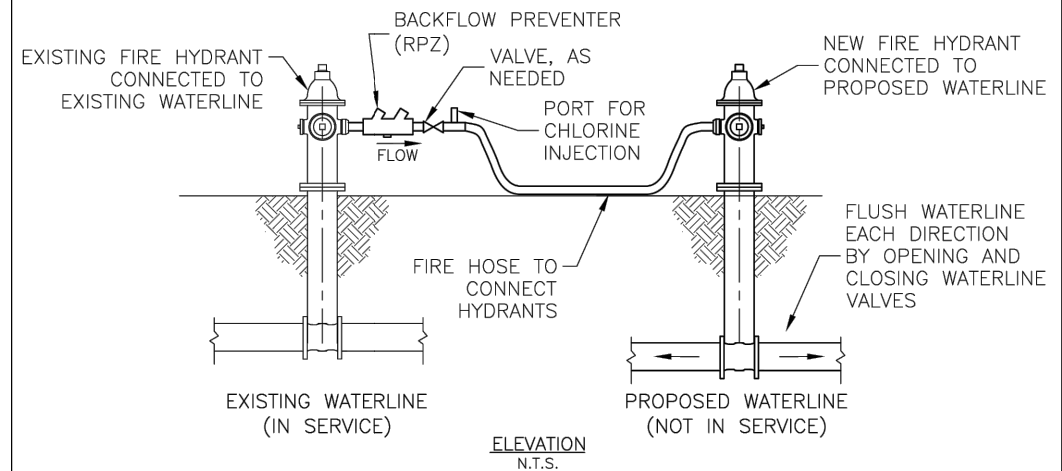
1. POLYETHYLENE WRAP IS TO BE PLACED AROUND THE ENTIRE FITTING, AND SECURED IN PLACE WITH POLYETHYLENE TAPE. PROVIDE SUFFICIENT SLACK SO THAT POLYETHYLENE WRAP IS NOT PUNCTURED DURING BACKFILL AND DOES NOT ENTRAP AIR. POLYETHYLENE WRAP IS NOT TO BE INSTALLED WITHIN 6 INCHES OF VALVE OPERATING NUT ON 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.

I:\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD39\_POLYWRAPPING\_FITTINGS

ERIE COUNTY  
WATER AUTHORITY  
BUFFALO, NEW YORK

STANDARD DETAIL  
POLYWRAPPING CAST/DUCTILE  
IRON FITTINGS

DWG. NO.  
SD39B  
DATE 12/18  
REVISED



**NOTES:**

1. THE PURPOSE OF THIS DETAIL IS TO DEPICT ACCEPTABLE METHODS OF CONNECTING EXISTING WATERLINES TO PROPOSED WATERLINES FOR FILLING, FLUSHING, AND TESTING PROCEDURES IF 2-INCH COPPER OR POLYETHYLENE TUBING IS NOT USED TO BYPASS A VALVE. OTHER METHODS REQUIRE SUBMITTAL AND APPROVAL BY THE AUTHORITY PRIOR TO USE.
2. FIRE HOSES, TEMPORARY PIPING, AND BACKFLOW PREVENTERS SHALL NOT ENCROACH INTO ROADWAYS, DRIVEWAYS, OR SIDEWALK AREAS WITHOUT PROVIDING PROPER MAINTENANCE AND PROTECTION OF TRAFFIC MEASURES.

I:\PUBLIC\ENGINEERING\CURRENT ECWA DETAILS\SD44\_SOURCE\_WATER\_CONNECTIONS

ERIE COUNTY  
WATER AUTHORITY  
BUFFALO, NEW YORK

STANDARD DETAIL  
SOURCE WATER CONNECTIONS

DWG. NO.  
SD44  
DATE 10/20  
REVISED

Approved By:



ERIE COUNTY WATER AUTHORITY  
3030 UNION RD.  
CHEEKTOWAGA, NY 14227

Project Name

RIDGE ROAD AND ORCHARD PARK ROAD  
WATER SYSTEM IMPROVEMENTS  
ECWA PN202300035

TOWN OF WEST SENECA  
ERIE COUNTY - NEW YORK

Name:  
MISCELLANEOUS  
DETAILS

Date:  
JUNE 2023

Scale:  
AS SHOWN

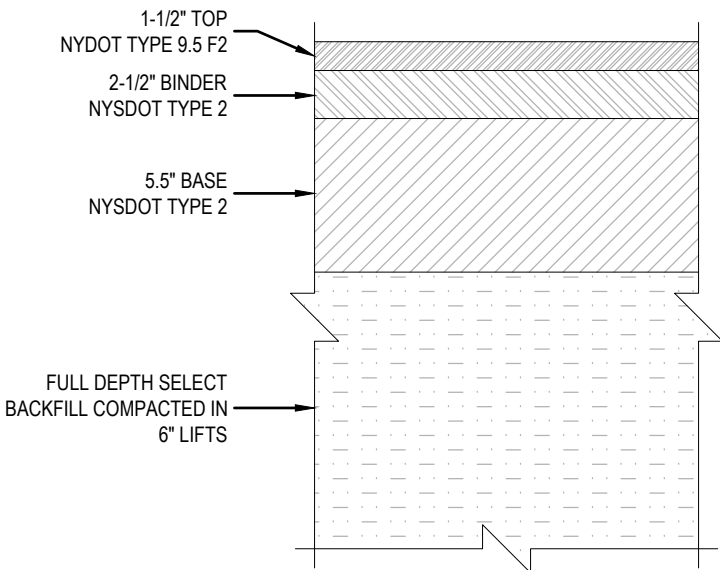
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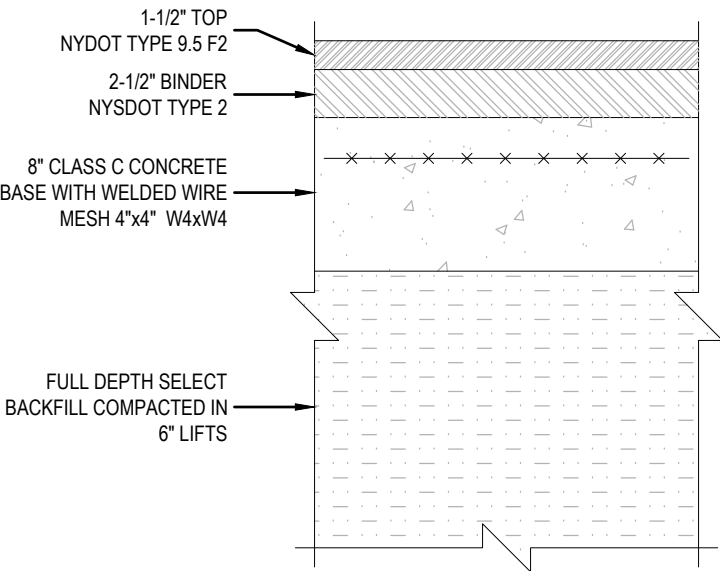
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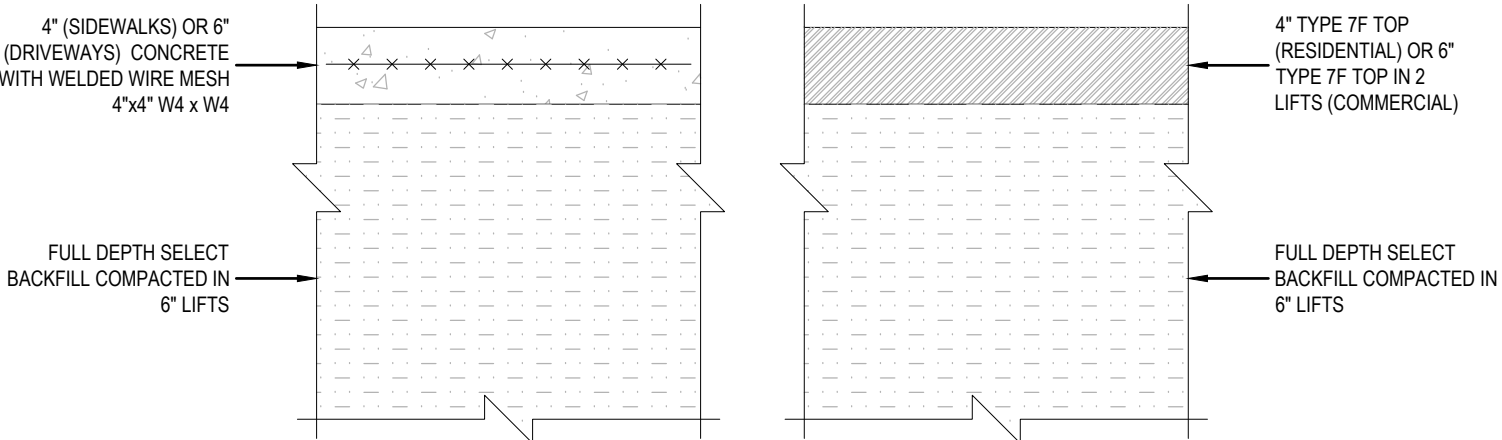


TOWN/COUNTY ROAD RESTORATION



NYSDOT ROAD RESTORATION

- PAVEMENT RESTORATION NOTE:
- (1) ALL COST ASSOCIATED WITH TEMPORARY MARKINGS AND STRIPING SHALL BE INCLUDED IN THE VARIOUS PAVEMENT ITEMS
  - (2) ALL COST ASSOCIATED WITH FINAL PAVEMENT MARKINGS AND STRIPING SHALL BE INCLUDED IN THE VARIOUS PAVEMENT ITEMS. FINAL PAVEMENT MARKINGS AND STRIPING IS REQUIRED IN ALL LOCATIONS THAT NYSDOT ARE NOT MILLING AND PAVING.
  - (3) CONTRACTOR SHALL DRILL AND GROUT #6 LONGITUDINAL BARS 24" LONG (12" EMBEDMENT) 36" O.C. STAGGERED FROM THE NEW CONCRETE BASE TO EXISTING CONCRETE BASE.
  - (4) PAVEMENT LIFT THICKNESS SHALL CONFORM TO NYSDOT STANDARDS




CONCRETE RESTORATION ASPHALT RESTORATION

SIDEWALK/DRIVEWAY/PARKING LOT RESTORATION

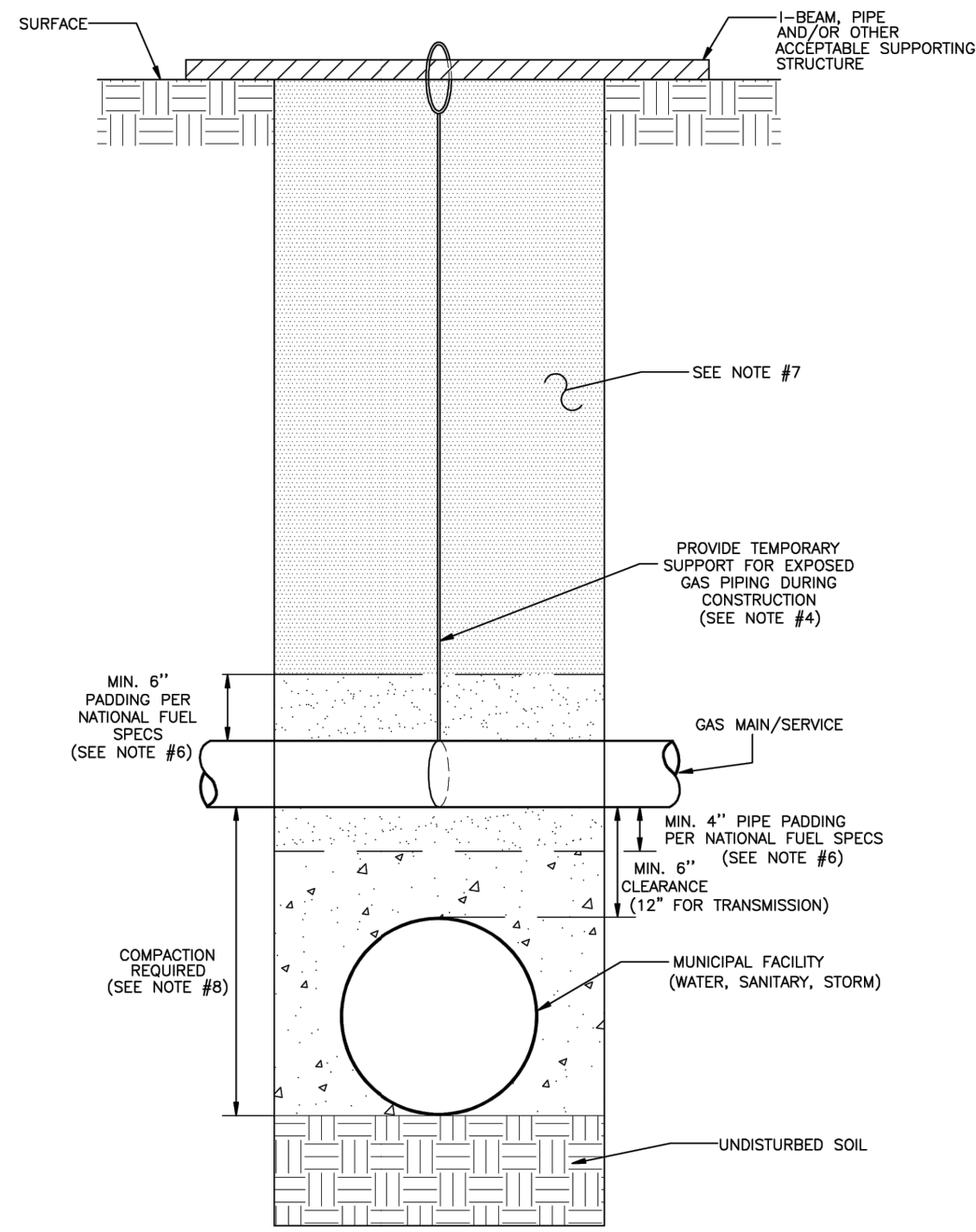
- CURB RESTORATION NOTE:
- (1) CONTRACTOR SHALL FOLLOW NYSDOT STANDARD SHEETS FOR CONCRETE CURB REPLACEMENT.

CURB RESTORATION

PAVEMENT RESTORATION

Approved By:	 ERIE COUNTY WATER AUTHORITY 3030 UNION RD. CHEEKTOWAGA, NY 14227	Project Name  RIDGE ROAD AND ORCHARD PARK ROAD WATER SYSTEM IMPROVEMENTS ECWA PN202300035  TOWN OF WEST SENECA ERIE COUNTY - NEW YORK	Name: MISCELLANEOUS DETAILS	Sheet  W-16  Page: 17 of 18  File Name: 202300035 - ORCHARD PARK DESIGN
			Date: JUNE 2023	
			Scale: AS SHOWN	
			Drawn/Revised By: WWW	








TYPICAL GAS LINE CROSSING OPEN TRENCH DETAIL  
NOT TO SCALE

NOTES

1. PRIOR TO ANY EXCAVATION WORK, DAMAGE PREVENTION LAWS REQUIRE PERSONS TO MAKE CONTACT WITH THE APPROPRIATE ONE-CALL SYSTEM BY CALLING 811 OR IN NEW YORK 1-800-962-7962/ IN PENNSYLVANIA 1-800-242-1776.
2. IF A NATURAL GAS FACILITY IS DAMAGED, RESULTING IN A RELEASE OF NATURAL GAS, IMMEDIATELY CALL 911 AND THE NATIONAL FUEL EMERGENCY NUMBER 1-800-444-3130.
3. IF A NATURAL GAS LINE IS SCRATCHED, GOUGED, DENTED, PULLED, OR BOWED DURING EXCAVATION WORK OR THE PROTECTIVE COATING IS DAMAGED, IMMEDIATELY CALL THE NATIONAL FUEL EMERGENCY NUMBER 1-800-444-3130 SO THAT WE CAN INVESTIGATE AND REPAIR ANY DAMAGE THAT COULD AFFECT PUBLIC SAFETY. SEEMINGLY INCONSEQUENTIAL DAMAGE CAN HAVE A MAJOR IMPACT AND CAN POTENTIALLY RESULT IN A FUTURE PIPELINE FAILURE.
4. NATIONAL FUEL REQUIRES THAT EXCAVATORS SUPPORT OUR FACILITIES IF EXPOSED DURING CONSTRUCTION. THE EXCAVATOR SHALL PROVIDE SUCH SUPPORT IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES. SUPPORT MUST BE MAINTAINED THROUGHOUT CONSTRUCTION AND BACKFILL OPERATIONS. THE SUPPORT SYSTEM SHALL PROTECT THE GAS FACILITIES FROM SETTLEMENT, TRAFFIC AND HEAVY LOADS OR FORCES. **CONTACT NATIONAL FUEL FOR SUPPORT RECOMMENDATIONS AND INSPECTION WHERE GAS PIPING WILL BE EXPOSED FOR A LENGTH OF 15' OR GREATER, OR WHENEVER A COUPLING OR FITTING IS EXPOSED.**
5. UNDERGROUND UTILITIES AND OTHER STRUCTURES PLACED NEAR NATIONAL FUEL FACILITIES MUST MAINTAIN A MINIMUM CLEARANCE OF 12" FOR TRANSMISSION PIPELINES AND 6" FOR DISTRIBUTION MAINS AND SERVICES. ANY METALLIC STRUCTURE PLACED NEAR STEEL PIPELINES REQUIRES THE INSTALLATION OF AN ELECTRIC TEST STATION.
6. BACKFILL MATERIAL AROUND NATIONAL FUEL GAS FACILITIES SHALL BE CLEAN DIRT, FREE OF SHALE OR SHARP STONES. ROUND STONES SHALL BE NO LARGER THAN 1" IN DIAMETER. ACCEPTABLE BACKFILL MATERIALS ARE:
  - A. SAND (SAND IS THE PREFERRED MATERIAL WHERE WASHOUT IS NOT LIKELY).
  - B. STONE "SCREENINGS" (LIMESTONE) ALL PASSING:
    - 100% PASSING THE NO.40 SIEVE
    - 70% PASSING THE NO.200 SIEVE
  - C. GRAVEL (A MODIFIED SIDEWALK MIX) OF A 50/50 BLEND OF NO.1A ROUND GRAVEL AND SAND.
  - D. NO.1A ROUND GRAVEL.
7. FILL MATERIAL BEYOND THE SELECT BACKFILL SHALL BE FREE OF LOGS, CINDERS, STUMPS, SKIDS, BRUSH OR ROCKS LARGER THAN 12 INCHES.
8. BACKFILL MATERIAL BENEATH AND AROUND ANY UNDERGROUND GAS FACILITY SHALL BE PROPERLY COMPACTED IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES.
9. HEAVY LOADS AND EXCESSIVE FORCES SHALL NOT BE IMPOSED ON GAS FACILITIES AT ANY TIME DURING CONSTRUCTION OR BACKFILLING OPERATIONS.
10. #10 OR #12 LOCATING WIRE IS BURIED ALONG SIDE MOST PLASTIC GAS MAINS AND SERVICES. HEAVIER CABLES (PART OF CATHODIC PROTECTION SYSTEMS) MAY ALSO BE FOUND NEAR SOME STEEL PIPE FACILITIES. IF ANY WIRE OR CABLE IS DAMAGED IT MUST BE IMMEDIATELY REPORTED TO NATIONAL FUEL.

 Know what's below. Call before you dig.	 <b>ENGINEERING</b> 6363 MAIN STREET WILLIAMSVILLE, NY 14221	<b>TYPICAL GAS LINE CROSSING OPEN TRENCH DETAIL</b>			DRAWING NUMBER
		DRAWN BY: T. NUGENT	CHECKED BY: M. PARKER	APPROVED BY: K. HOUSE	SHEET NO.: <b>1</b> OF <b>1</b>
DATE: 1/5/12		FILENAME: GASLINECROSSINGDETAIL.DWG			

Approved By:	 ERIE COUNTY WATER AUTHORITY 3030 UNION RD. CHEEKTOWAGA, NY 14227	Project Name  RIDGE ROAD AND ORCHARD PARK ROAD WATER SYSTEM IMPROVEMENTS ECWA PN202300035  TOWN OF WEST SENECA ERIE COUNTY - NEW YORK	Name: MISCELLANEOUS DETAILS	Sheet  <b>W-17</b>  Page: 18 of 18
			Date: JUNE 2023	
			Scale: AS SHOWN	
			Drawn/Revised By: WWW	
		File Name: 202300035 - ORCHARD PARK DESIGN		