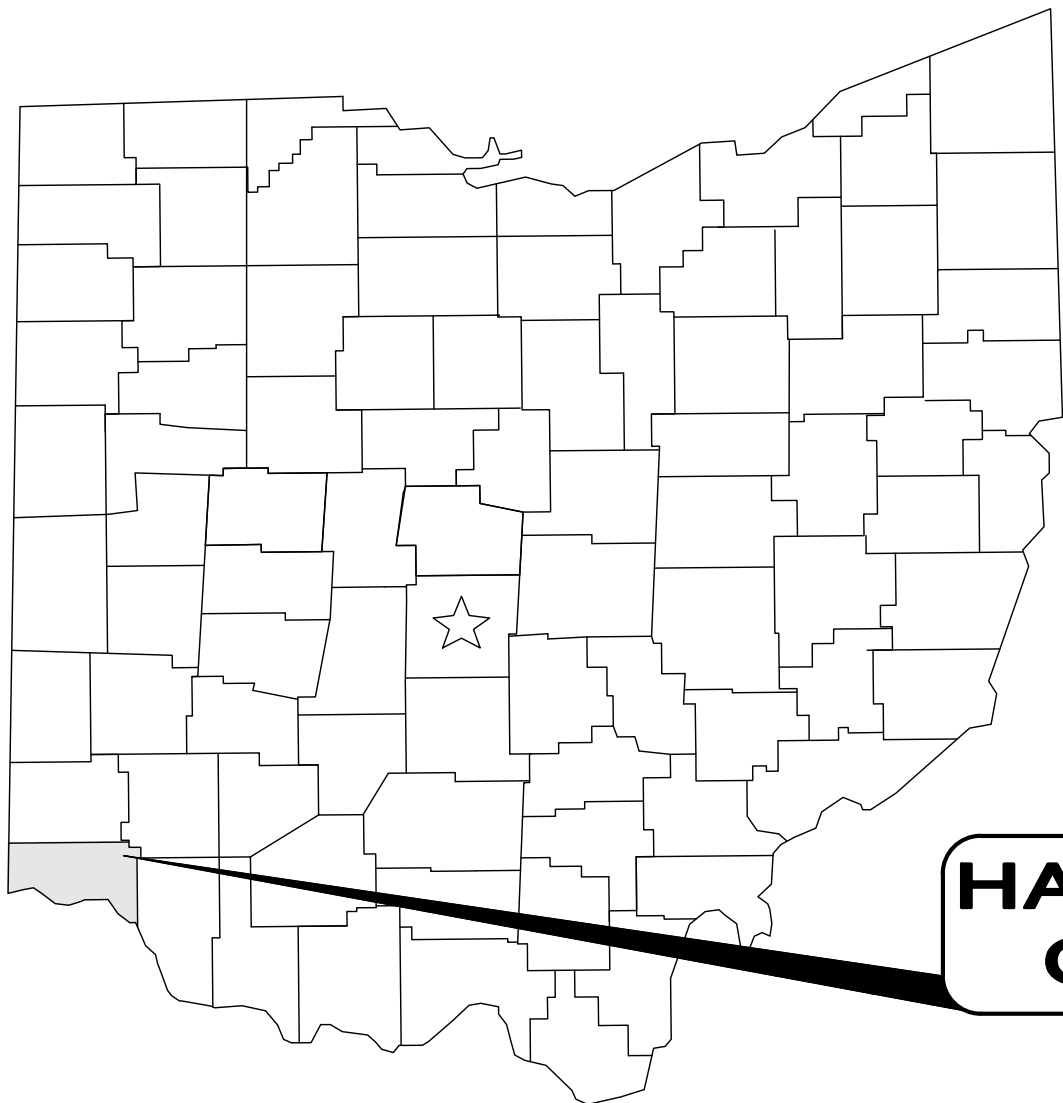


ADDYSTON-CLEVES WDS CONNECTION PROJECT

VILLAGE OF CLEVES WATERWORKS
CLEVES, OH

NOVEMBER 2025



HAMILTON
COUNTY

UTILITY COMPANIES

NOTE: UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD MARKINGS (BY OTHERS) AND AVAILABLE RECORDS, AND AS SUCH, SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY - **CALL BEFORE YOU DIG!**

SEWERS: CITY OF CINCINNATI SEWER 1600 GEST STREET CINCINNATI, OH 45204 (513) 244-1300	WATER: CLEVES WATERWORKS 92 EAST CLEVES AVENUE CLEVES, OH 45002 (513) 941-3490	GAS: DUKE ENERGY 1-800-774-1202
ELECTRIC: DUKE ENERGY 1-800-774-1202	TELEPHONE: COMCAST 908 NATIONAL ROAD BRIDGEPORT, OH 43912 1-800-934-6489	

STANDARD CONSTRUCTION DRAWINGS

THE CURRENT STANDARD CONSTRUCTION DRAWINGS FOR EACH MUNICIPALITY OR UTILITY LISTED BELOW SHALL BE CONSIDERED AS PART OF THIS SET THEREOF.

ODOT	CITY OF CINCINNATI
ODOT STANDARD CONSTRUCTION DRAWINGS	FIRE HYDRANT DETAIL METER SETTING DETAIL THRUST BLOCKING (REDUCER) DETAIL THRUST BLOCKING DETAIL

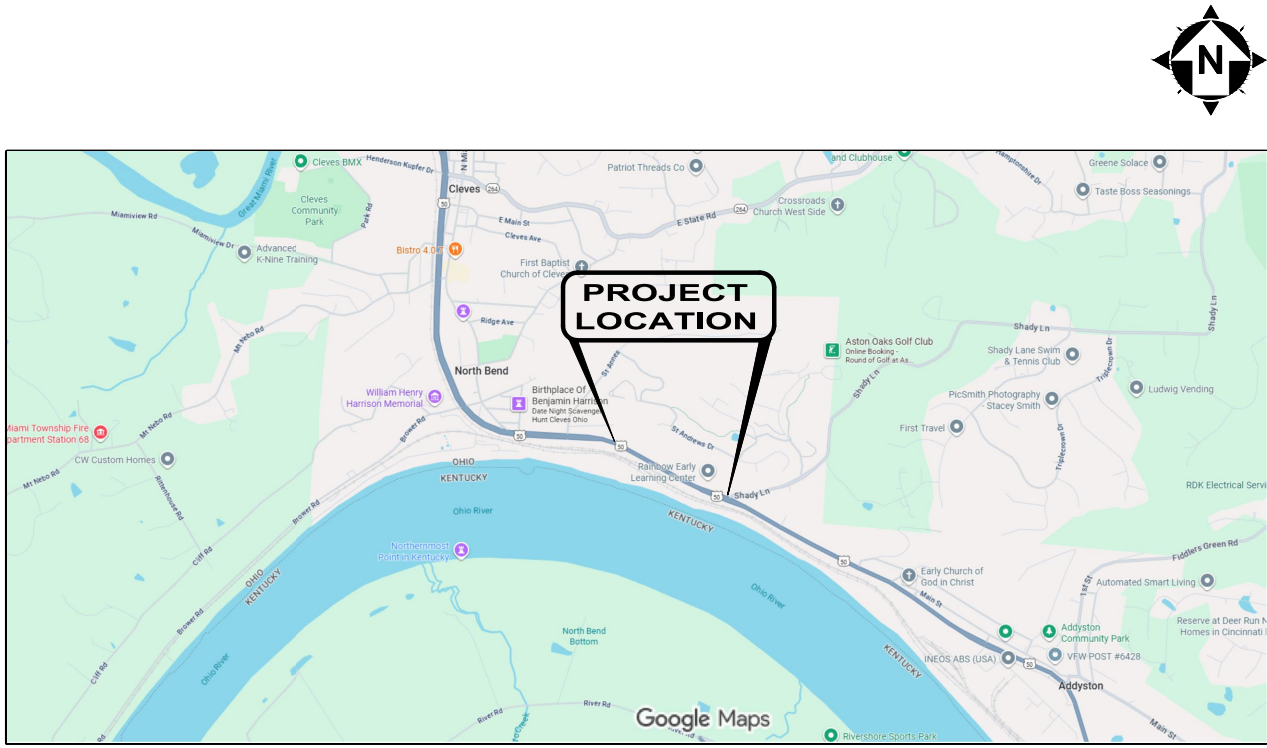
**WATER SUPPLY
APPROVED**

OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED



INDEX MAP
SCALE 1"=200'

Sheet List Table	
Sheet Number	Sheet Title
01	Title Sheet
02	General Notes
03	Legend
04	Details - 1
05	Details - 2
06	Details - 3
07	Details - 4
08	P&P - 1
09	P&P - 2
10	P&P - 3
11	P&P - 4
12	Meter Vault
13	Demolition



LOCATION MAP
N.T.S.

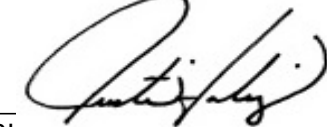
OWNER

CLEVES WATER DEPARTMENT
92 CLEVES AVENUE
CLEVES, OH 45002
(513) 941-3490

ENGINEER

VERDANTAS
6397 EMERALD PARKWAY, SUITE 200
DUBLIN, OH 43016
614-793-8777


CONSTRUCTION PLAN APPROVALS:

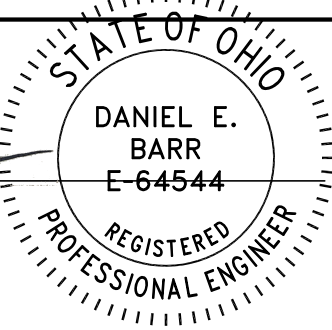

JUSTIN HABIS, VILLAGE ADMINISTRATOR
10/29/2025
DATE

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. THE REVIEWER DOES NOT ACCEPT RESPONSIBILITY FOR THE INTEGRITY OF THE PLANS.

DESIGN ENGINEER:

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS FOR MARION COUNTY, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE.


DANIEL E. BARR, P.E. NO. PE64544
10/29/2025
DATE



ADDYSTON-CLEVES CONNECTION

PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

COVER SHEET

PROJECT NO.	
35192	
DISCIPLINE	
CIVIL	
SHEET NAME	
COVER SHEET	
SHEET	OF
1	13

01/09/2026













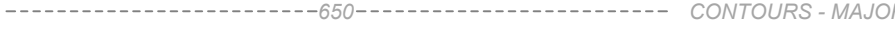

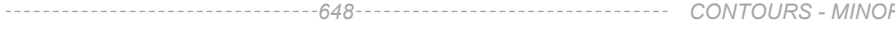















































BID SET

verdantas

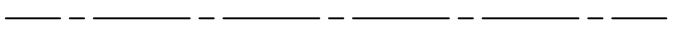




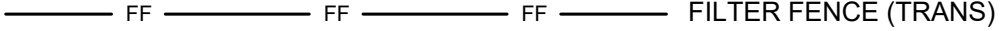



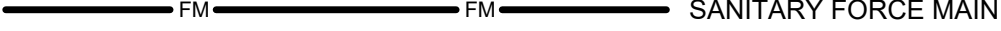
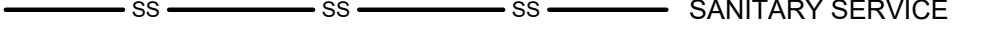
300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: (609) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	REVIEW	NO	REVISION	DATE
	12/05/2025			
ISSUE DATE:				
SCALE:				
DESIGNED BY:	QDB			
DRAWN BY:	QDB			
CHECKED BY:	DEB			

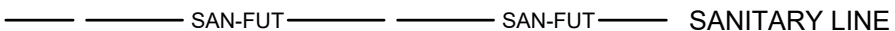

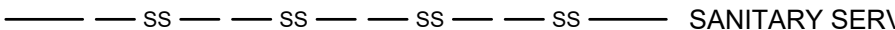
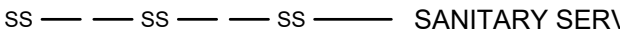
EXISTING PLAN LINETYPES:

	EX. RW		RIGHT-OF-WAY
			PROPERTY LINE
			BUILDING OUTLINES
			FENCE - GENERAL
			FENCE - CHAIN LINK
			FENCE - WOOD
			CONTOURS - MAJOR
			CONTOURS - MINOR
			PAVEMENT - GENERAL
			WALK
			BRUSH LINE
			BUSH LINE
			TREE LINE
			CATV LINE
			COMM LINE
			ELECTRIC LINE
			ELECTRIC LINE - OH
			ELECTRIC LINE - UG
			ELECTRIC SERVICE
			FOC LINE
			GAS LINE
			GAS SERVICE
			UTILITY LINE
			SANITARY SERVICE
			STORM LINE
			STORM UNDERDRAIN
			TEL LINE - OH
			TEL LINE - UG
			TRAFFIC LINE
			WATER LINE
			WATER SERVICE









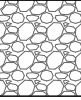
PROPOSED PLAN LINETYPES:

	CENTERLINE
	EASEMENT LINE
	WORK LIMITS
	CONSTRUCTION FENCE
	SILT FENCE
	FILTER FENCE (TRANS)
	ELECTRIC LINE
	ELEC SERVICE
	SANITARY LINE
	SANITARY FORCE MAIN
	SANITARY SERVICE























































FUTURE PLAN LINE SYMBOLOGY:

	SAN-FUT		SAN-FUT	SANITARY LINE
	SS		SS	SANITARY SERV

EROSION CONTROL:

	CONCRETE WASHOUT AREA
	CONSTRUCTION ENTRANCE
	DITCH PROTECTION - BEAVER DAM
	DITCH PROTECTION - STRAW BALE
	INLET PROTECTION - DANDYBAG - CB
	INLET PROTECTION - DANDYBAG - CI
	INLET PROTECTION - FLEXSTORM - CB
	INLET PROTECTION - FLEXSTORM - CI
	OUTLET PROTECTION - RCP

SITE SYMBOLOGY:

EX:	PR:	
		BENCH MARK
		NAIL - MAG
		PIN - IRON
		ELECTRIC CONTROL BOX
		ELECTRIC JUNCTION BOX
		ELECTRIC PULL BOX
		TELEPHONE PEDESTAL
		GAS METER
		GAS VALVE W/TEXT
		POLE - POWER / LIGHT
		POLE - POWER / TELEPHONE
		POLE - POWER / TEL / CABLE
		POLE - GUY
		POLE - LIGHT
		POLE - TELEPHONE
		SANITARY MANHOLE - 48"
		SANITARY MANHOLE - 72"
		SANITARY STRUCTURE NO.
		CATCH BASIN - 2X2
		STORM DRAIN
		STORM MANHOLE - 48"
		STORM MANHOLE - 48" INLET
		WATER HYDRANT, FIRE
		WATER HYDRANT, FLUSH
		WATER METER
		WATER METER PIT
		WATER VALVE

BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: (609) 525-0544
WWW.VERDANTAS.COM

ADDYSTON-CLEVES CONNECTION

PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

DRAWING INDEX & LEGEND

PROJECT NO.

35192

DISCIPLINE

CIVIL

SHEET NAME

LEGEND

SHEET

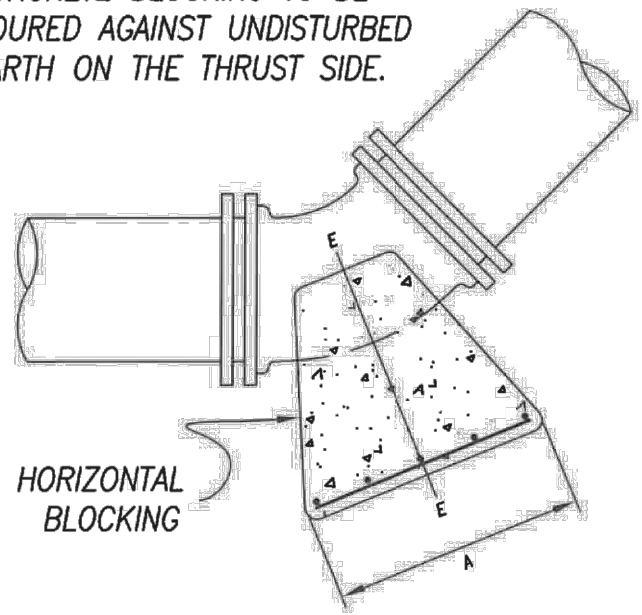
3

OF

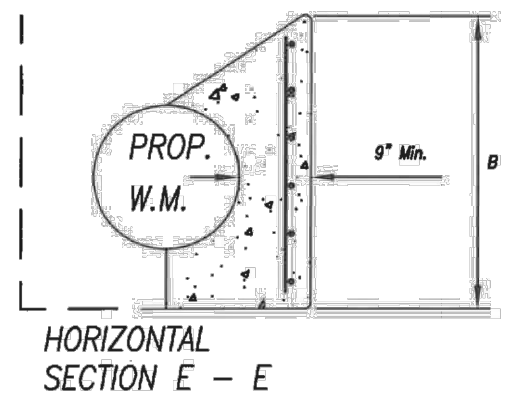
13

NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.

NOTE:
CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE.



3/4" REINFORCING BARS TO BE PLACED ON THRUST SIDE 6" O.C.



IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12X12-W5.8XW5.8) @ 42 LBS. PER 100 S.F.



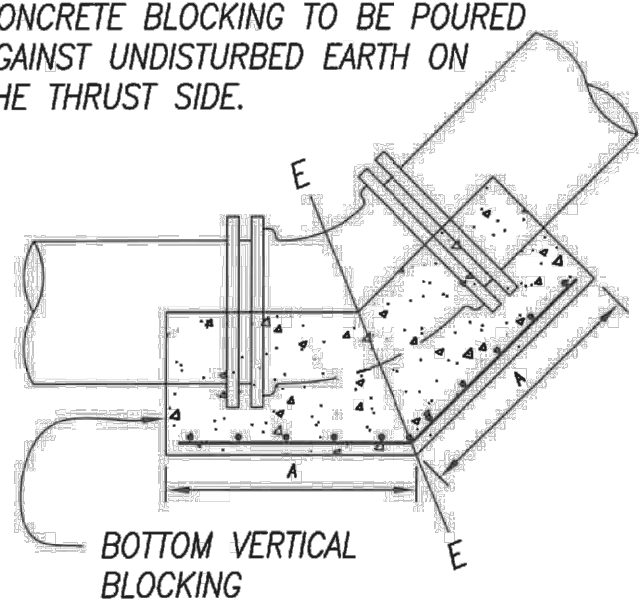
CONCRETE BLOCKING FOR FITTINGS

HORIZONTAL BENDS

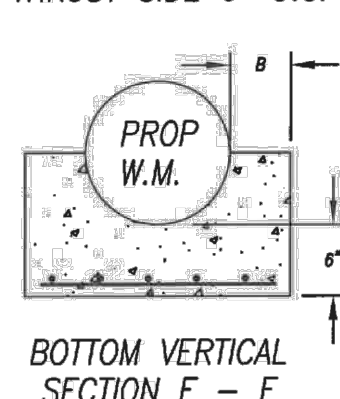
APPROVED DATE STANDARD DRAWING
1/4/13 101-1

NOTE:
PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.

NOTE:
CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE.



3/4" REINFORCING BARS TO BE PLACED ON THRUST SIDE 6" O.C.



SPECIAL REQUIREMENTS

- WHERE THE DISTANCE BETWEEN CONCRETE BLOCKING FOR A TOP VERTICAL BEND AND BLOCKING FOR A BOTTOM VERTICAL BEND IS LESS THAN 3 FEET APART, STANDARD DRAWING NO. 101-4 SHALL APPLY.
- THIS STANDARD DRAWING DOES NOT APPLY TO CREEK CROSSING, SEE STANDARD DRAWING NO. 105-1.
- IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12X12-W5.8XW5.8) @ 42 LBS. PER 100 S.F.

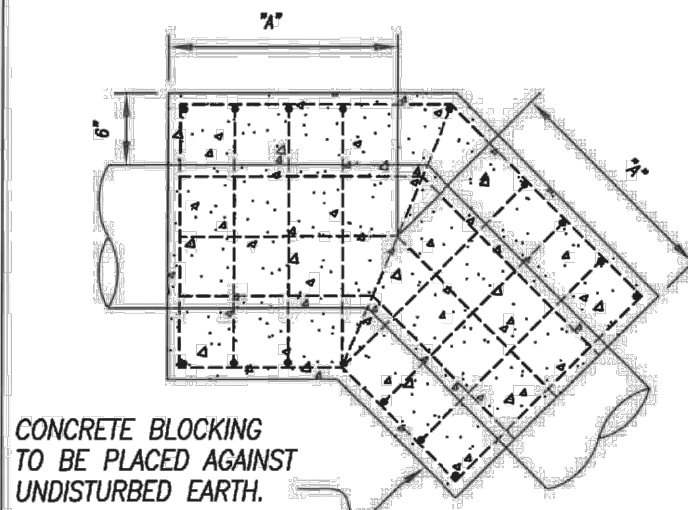


CONCRETE BLOCKING FOR FITTINGS

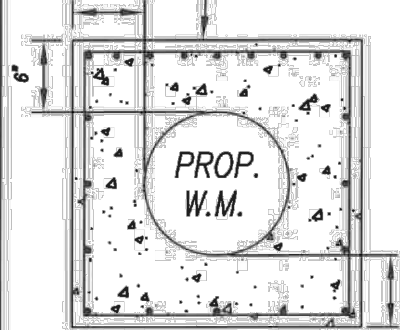
BOTTOM VERTICAL BENDS

APPROVED DATE STANDARD DRAWING
1/4/13 101-2

NOTE:
1. PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.
2. CONCRETE AND STEEL QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY.



ALL BARS 3/4" @ 12" O.C. EXCEPT LONG BARS ON THRUST SIDE 6" O.C.



SPECIAL REQUIREMENTS

- WHERE THE DIMENSIONS INDICATED WILL NOT PERMIT THE BLOCKING TO BEAR AGAINST UNDISTURBED EARTH, WATER MAIN SHALL BE ENCASED AS SHOWN ON STANDARD DRAWING NO. 101-4.
- WHERE THE DISTANCE BETWEEN CONCRETE BLOCKING FOR A TOP VERTICAL BEND AND BLOCKING FOR A BOTTOM VERTICAL BEND IS LESS THAN 3 FEET APART, STANDARD DRAWING NO. 101-4 SHALL APPLY.
- THIS STANDARD DRAWING DOES NOT APPLY TO CREEK CROSSING, SEE STANDARD DRAWING NO. 105-1.

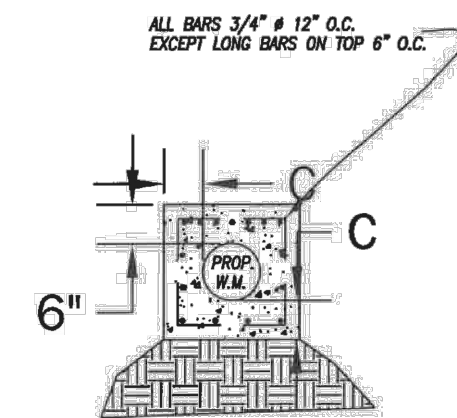
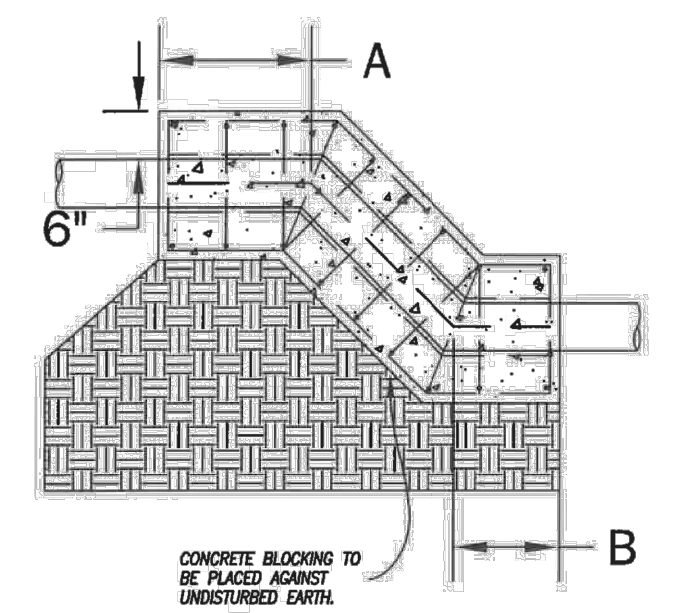
NOTE:
IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12 x 12 - W 5.8 x W 5.8) @ 42 LBS PER. 100 S.F.



CONCRETE BLOCKING FOR FITTINGS

TOP VERTICAL BENDS

APPROVED DATE STANDARD DRAWING
1/4/13 101-3



ALL BARS 3/4" @ 12" O.C. EXCEPT LONG BARS ON TOP 6" O.C.

- PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.
- CONCRETE AND STEEL QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY.
- IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12 x 12 - W5.8 x W5.8) @ 42 LBS. PER. 100 S.F.



CONCRETE BLOCKING FOR FITTINGS

TOP AND BOTTOM VERTICAL BENDS - FULL ENCASEMENT

APPROVED DATE STANDARD DRAWING
1/4/13 101-4

SIZE	BEND ANGLE	75 P.S.I. & UNDER					75 P.S.I. TO 125 P.S.I.					125 P.S.I. TO 200 P.S.I.				
		A	B	C	CU. YDS. CONC. PER LIN. FT.	STEEL LBS. PER LIN. FT.	A	B	C	CU. YDS. CONC. PER LIN. FT.	STEEL LBS. PER LIN. FT.	A	B	C	CU. YDS. CONC. PER LIN. FT.	STEEL LBS. PER LIN. FT.
4"	11-1/4"	1'-0"	1'-0"	0'-9"	.10	18	1'-0"	1'-0"	0'-9"	.10	18	1'-0"	1'-0"	0'-9"	.10	18
	22-1/2"	1'-0"	1'-0"	0'-9"	.10	18	1'-0"	1'-0"	0'-9"	.10	18	1'-0"	1'-0"	0'-9"	.10	18
	45	1'-6"	1'-0"	0'-9"	.10	18	1'-6"	1'-0"	0'-9"	.10	18	2'-0"	1'-0"	1'-0"	.18	25
6"	11-1/4"	1'-0"	1'-0"	0'-9"	.15	22	1'-0"	1'-0"	0'-9"	.15	22	1'-6"	1'-0"	0'-9"	.15	22
	22-1/2"	1'-6"	1'-0"	0'-9"	.15	22	1'-6"	1'-0"	0'-9"	.15	22	2'-0"	1'-0"	0'-9"	.15	22
	45	2'-0"	1'-0"	0'-9"	.15	22	2'-0"	1'-0"	1'-0"	.20	29	3'-0"	1'-0"	1'-0"	.20	29
8"	11-1/4"	1'-6"	1'-0"	0'-9"	.17	26	1'-6"	1'-0"	0'-9"	.17	26	1'-6"	1'-0"	0'-9"	.17	26
	22-1/2"	1'-6"	1'-0"	0'-9"	.17	26	2'-0"	1'-0"	0'-9"	.17	26	2'-6"	1'-0"	1'-0"	.23	30
	45	2'-0"	1'-0"	1'-0"	.23	30	3'-6"	1'-0"	1'-0"	.23	30	5'-0"	1'-6"	1'-0"	.23	30
10"	11-1/4"	1'-6"	1'-0"	0'-9"	.17	29	1'-6"	1'-0"	0'-9"	.17	29	2'-0"	1'-0"	0'-9"	.17	29
	22-1/2"	1'-6"	1'-0"	0'-9"	.17	29	2'-0"	1'-0"	1'-0"	.23	31	3'-0"	1'-0"	1'-0"	.23	31
	45	3'-0"	1'-0"	1'-0"	.23	31	4'-6"	1'-6"	1'-0"	.23	31	7'-0"	2'-0"	1'-0"	.23	31
12"	11-1/4"	1'-6"	1'-0"	0'-9"	.20	30	1'-6"	1'-0"	0'-9"	.20	30	2'-0"	1'-0"	0'-9"	.20	30
	22-1/2"	2'-0"	1'-0"	0'-9"	.20	30	2'-6"	1'-0"	1'-0"	.26	40	4'-0"	1'-6"	1'-0"	.26	40
	45	4'-0"	1'-0"	1'-0"	.26	40	6'-0"	2'-0"	1'-0"	.26	40	9'-0"	3'-0"	1'-0"	.26	40
16"	11-1/4"	1'-6"	1'-0"	0'-9"	.24	34	1'-6"	1'-0"	0'-9"	.24	34	2'-0"	1'-0"	1'-0"	.32	39
	22-1/2"	2'-0"	1'-0"	1'-0"	.32	39	3'-6"	1'-6"	1'-0"	.32	39	6'-6"	2'-0"	1'-0"	.32	39
	45	6'-0"	2'-0"	1'-0"	.32	39	10'-0"	3'-0"	1'-0"	.32	39	9'-6"	4'-0"	1'-6"	.51	51

BID SET

verdantas

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FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
WWW.VERDANTAS.COM

DATE	REVISION	NO	REVIEW	ISSUED FOR	ISSUE DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
					12/05/2025		QDB	QDB	DEB

ADDYSTON-CLEVES CONNECTION

PROJECT

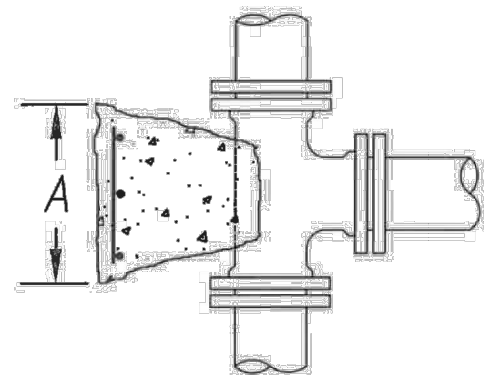
VILLAGE OF CLEVES

HAMILTON COUNTY, OHIO

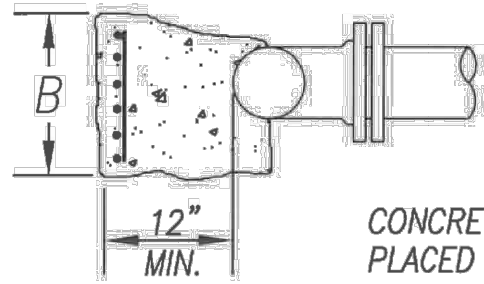
WATERLINE CONSTRUCTION

DETAILS

PROJECT NO.	35192
DISCIPLINE	CIVIL
SHEET NAME	DETAILS - 1
SHEET	OF
4	13



3/4" REINFORCING BARS TO BE PLACED ON THRUST SIDE 6" O.C.



CONCRETE BLOCKING TO BE PLACED AGAINST UNDISTURBED EARTH.

NOTE:
THIS STD. DWG. SHALL BE UTILIZED FOR BLOCKING OF TEES, 90° BENDS, FIRE HYDRANTS, AND PLUGS

SIZE		75 P.S.I. & UNDER				75 P.S.I. TO 125 P.S.I.				125 P.S.I. TO 200 P.S.I.			
RUN	BRANCH	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL
6"	6"	1'9"	1'6"	0.1	17	2'6"	1'6"	0.1	23	2'6"	2'0"	0.2	30
8"	6"	1'9"	1'9"	0.1	17	2'0"	1'9"	0.1	23	2'6"	2'0"	0.2	30
12"	6"	1'6"	2'0"	0.2	18	2'0"	2'0"	0.2	24	2'6"	2'0"	0.2	30
16"	6"	1'6"	2'6"	0.2	23	1'6"	2'6"	0.2	23	2'0"	2'6"	0.2	30
20"	6"	1'6"	2'9"	0.2	26	1'6"	2'9"	0.2	26	1'9"	2'9"	0.2	33
8"	8"	2'0"	2'0"	0.2	24	2'6"	2'0"	0.2	28	3'0"	2'3"	0.2	32
10"	8"	2'0"	2'0"	0.2	24	2'6"	2'0"	0.2	28	3'0"	2'3"	0.2	32
12"	8"	2'0"	2'0"	0.2	24	2'6"	2'0"	0.2	28	3'0"	2'3"	0.2	32
16"	8"	2'0"	2'0"	0.2	24	2'6"	2'6"	0.3	35	3'0"	2'4"	0.3	32
20"	8"	2'0"	2'0"	0.2	24	2'6"	2'9"	0.4	35	3'0"	2'9"	0.4	39
12"	12"	3'0"	3'0"	0.5	54	4'0"	2'6"	0.4	55	4'6"	3'6"	0.7	95
16"	12"	3'0"	3'0"	0.5	54	4'0"	2'6"	0.4	55	4'6"	3'9"	0.7	98
20"	12"	3'0"	3'0"	0.5	54	4'0"	2'9"	0.6	60	4'6"	4'0"	1.0	108
20"	16"	4'0"	3'6"	0.8	84	4'6"	4'0"	1.0	108	6'0"	5'0"	1.5	180
20"	20"	4'6"	4'6"	1.1	122	5'6"	5'0"	1.4	165	7'0"	6'0"	2.0	252

NOTE: 1. PRESSURE RANGES AS SHOWN ARE OPERATING PRESSURES. CONCRETE AND STEEL QUANTITIES ARE CALCULATED USING OPERATING PRESSURE PLUS 50 P.S.I.

2. CONCRETE AND STEEL QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY.

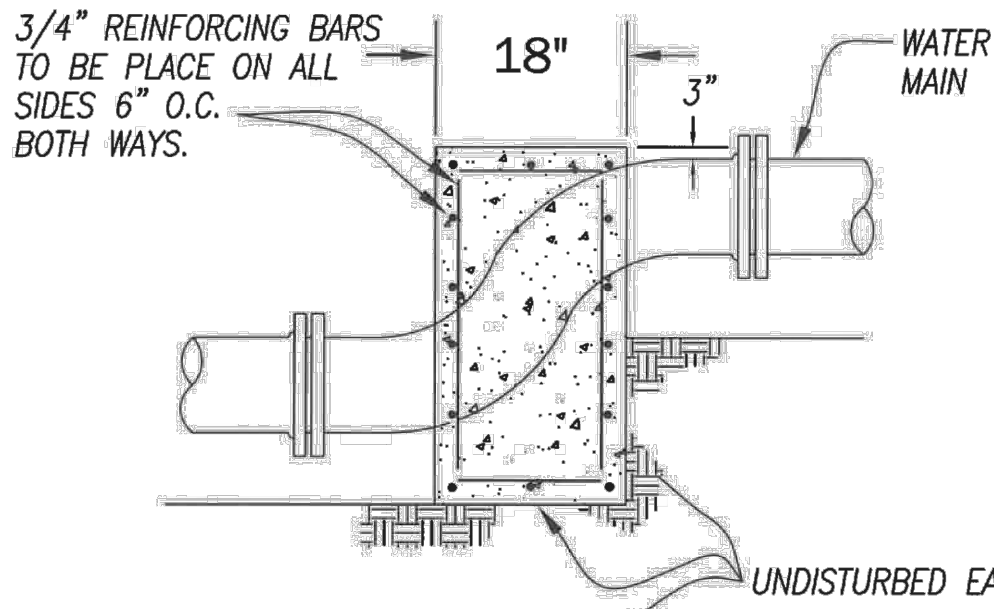
3. IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12 X 12 - W5.8 X W5.8) @ 42 LBS. PER 100 S.F.



CONCRETE BLOCKING FOR FITTINGS

TEES

APPROVED	DATE	STANDARD DRAWING
	1/4/13	101-5



VARIES

UNDISTURBED EARTH

FOR ESTIMATING ONLY

PIPE SIZE	CU. YD. CONC.	LBS. STEEL
4"	.2	69
6"	.2	69
8"	.2	69
10"	.25	83
12"	.3	88

NOTE:
CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.

CONCRETE BLOCKING FOR OFFSET BENDS IN A HORIZONTAL POSITION REFER TO STANDARD DRAWING 101-1

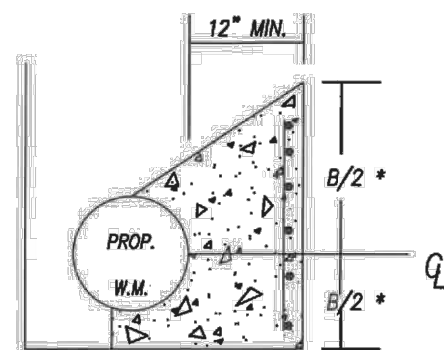
IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12 X 12 - W5.8 X W5.8) @ 42 LBS PER S.F.



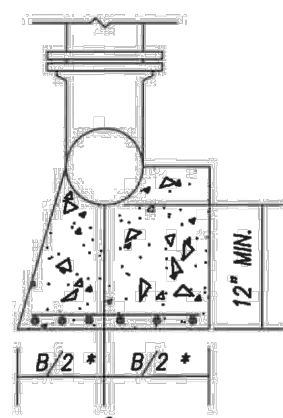
CONCRETE BLOCKING FOR FITTINGS

OFFSET BENDS

APPROVED	DATE	STANDARD DRAWING
	1/4/13	101-6

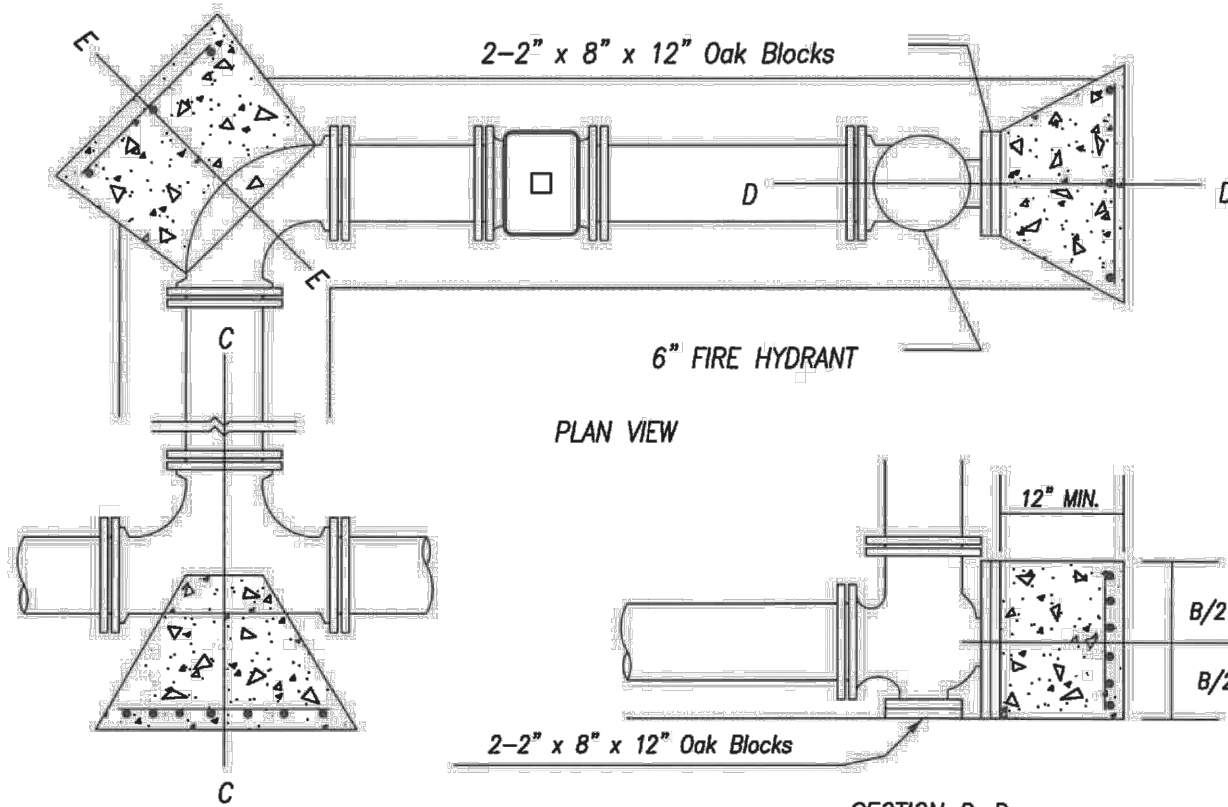


HORIZONTAL SECTION E-E



SECTION C-C

* SEE NOTE ONE



PLAN VIEW

SECTION D-D

NOTE:

1. REFER TO STANDARD DRAWING NO. 101-5 FOR PLACEMENT OF REINFORCING STEEL AND BLOCKING DETAILS.

2. CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE.

3. IN LIEU OF STEEL REINFORCING BARS, THE CONTRACTOR HAS THE OPTION TO USE WELDED WIRE FABRIC SHEETS (12 X 12 - W 5.8 X W 5.8) @ 42 LBS. PER 100 S.F.



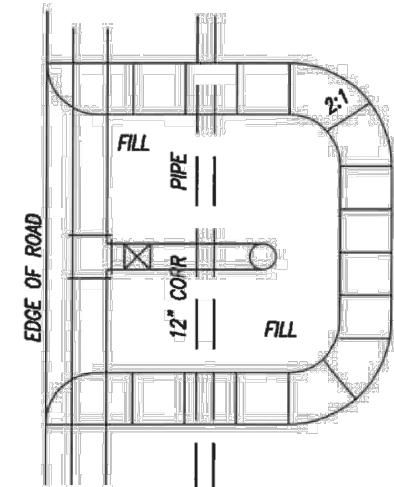
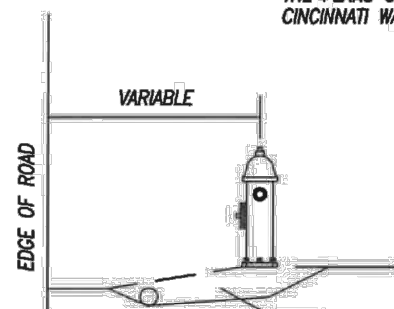
CONCRETE BLOCKING FOR FITTINGS

FIRE HYDRANT BLOCKING

APPROVED	DATE	STANDARD DRAWING
	1/4/13	101-7

SETTING ON ROADWAYS WITHOUT CURBS

4" I.D. CAST IRON PIPE, 6' LONG, TO BE FILLED WITH CONCRETE WITH EXPOSED PART TO BE MARKED WITH BLACK AND WHITE PAINTED STRIPES. GUARD POSTS TO BE INSTALLED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE CINCINNATI WATER WORKS.



DRAIN PIPE WILL BE INSTALLED AT ALL TIMES WHEN HYDRANT LEAD IS WITHIN EXISTING OR PROPOSED DRAINAGE DITCH.

NOTE:

1. NO PART OF ANY FIRE HYDRANT SETTING SHALL BE CLOSER THAN 5'-0" TO ANY DRIVEWAY, SEWER INLET, UTILITY POLE, ANCHOR WIRE, OR SIDEWALK ENTRANCE.
2. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR GUARD POST, DRAIN PIPE, OR GRADING WORK.

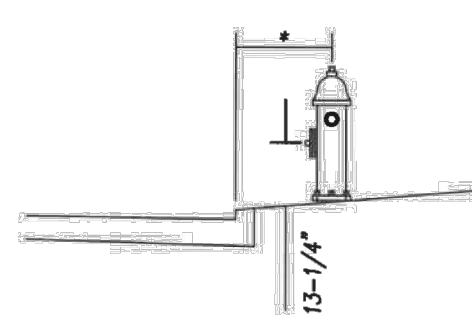


FIRE HYDRANT SETTINGS

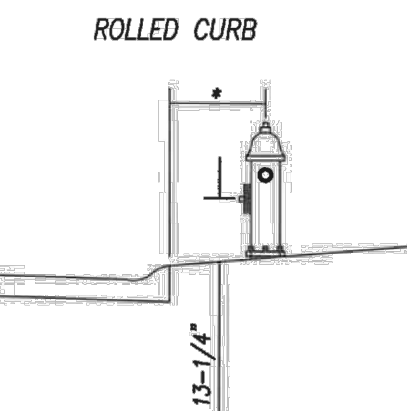
GENERAL LAYOUT

APPROVED	DATE	STANDARD DRAWING
	1/4/13	103-1

BATTERED OR STRAIGHT CURB



* AS INDICATED ON PLANS



ADDYSTON-CLEVES CONNECTION

PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

WATERLINE CONSTRUCTION
DETAILS

PROJECT NO.

35192

DISCIPLINE

CIVIL

SHEET NAME

DETAILS - 2

SHEET OF

5 13

ISSUED FOR:	REVIEW	NO	REVISION	DATE
ISSUE DATE: 12/05/2025				
SCALE:				
DESIGNED BY: QDB				
DRAWN BY: QDB				
CHECKED BY: DEB				

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FORT MITCHELL, KENTUCKY 41017
TEL: (699) 525-0544
WWW.VERDANTAS.COM

BID SET

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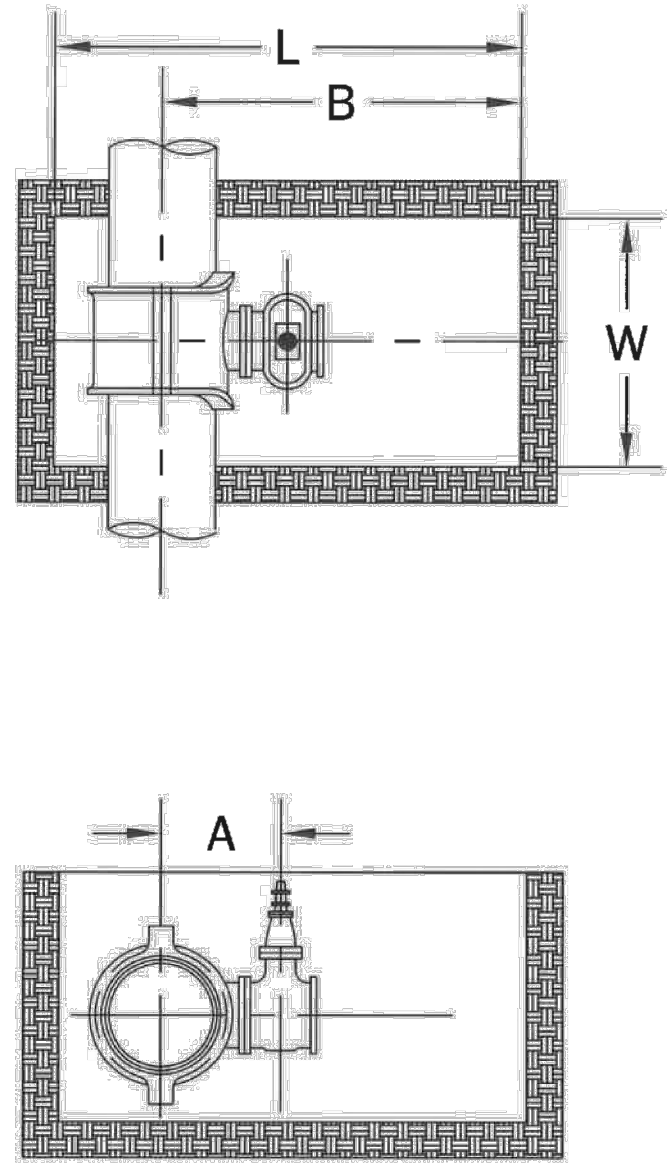
DATE	REVISION	NO	REVIEW	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
					12/05/2025		QDB	QDB	DEB

ADDYSTON-CLEVES CONNECTION

PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

WATERLINE CONSTRUCTION
DETAILS

PROJECT NO.	35192
DISCIPLINE	CIVIL
SHEET NAME	DETAILS - 3
SHEET	OF
6	13



SIZE	A	B	W	L
8 X 4	13"	6'-8"	4'-11"	8'-8"
8 X 6	14-1/8"	6'-10"	5'-1"	8'-10"
8 X 8	13-3/4"	6'-8"	4'-11"	8'-10"
8 X 6	15-7/8"	7'-0"	5'-1"	9'-1"
8 X 8	16-1/8"	7'-2"	5'-3"	9'-4"
10 X 4	15	6'-10"	4'-11"	9'-0"
10 X 6	16-3/8"	7'-1"	5'-1"	9'-3"
10 X 8	17-3/8"	7'-3"	5'-3"	9'-6"
10 X 10	17-1/8"	7'-4"	5'-5"	9'-7"
12 X 4	16-1/2"	6'-11"	4'-11"	9'-2"
12 X 6	17-1/8"	7'-2"	5'-1"	9'-6"
12 X 8	18-1/8"	7'-4"	5'-3"	9'-7"
12 X 10	18-3/8"	7'-5"	5'-5"	9'-8"
12 X 12	19-3/8"	7'-6"	5'-7"	9'-9"
16 X 4	19-1/8"	7'-3"	4'-11"	9'-8"
16 X 6	20-3/4"	7'-8"	5'-1"	9'-11"
16 X 8	21-7/8"	8'-3"	5'-3"	10'-1"
16 X 10	22-1/4"	7'-7"	5'-5"	10'-2"
16 X 12	22-9/8"	7'-8"	5'-7"	10'-4"

SIZE	A	B	W	L
20 X 4	21-1/2"	7'-5"	4'-11"	10'-0"
20 X 6	22-1/8"	7'-8"	5'-1"	10'-3"
20 X 8	24-1/8"	7'-10"	5'-3"	10'-5"
20 X 10	24-7/8"	7'-10"	5'-5"	10'-5"
20 X 12	24-5/8"	7'-11"	5'-7"	10'-6"
24 X 4	23-11/8"	7'-7"	4'-11"	10'-4"
24 X 6	25-1/8"	7'-10"	5'-1"	10'-7"
24 X 8	26-1/4"	8'-0"	5'-3"	10'-9"
24 X 10	26-3/8"	8'-1"	5'-5"	10'-10"
24 X 12	26-1/8"	8'-1"	5'-7"	10'-10"
30 X 4	27-1/8"	7'-11"	4'-11"	10'-11"
30 X 6	28-3/8"	8'-1"	5'-1"	11'-1"
30 X 8	28-3/4"	8'-3"	5'-3"	11'-3"
30 X 10	30-1/8"	8'-4"	5'-5"	11'-4"
30 X 12	30-3/8"	8'-4"	5'-7"	11'-4"
36 X 4	30-3/4"	8'-2"	4'-11"	11'-6"
36 X 6	31-1/8"	8'-5"	5'-1"	11'-9"
36 X 8	33-3/8"	8'-6"	5'-3"	11'-9"
36 X 10	33-7/8"	8'-6"	5'-5"	11'-10"
36 X 12	33-5/8"	8'-7"	5'-7"	11'-11"

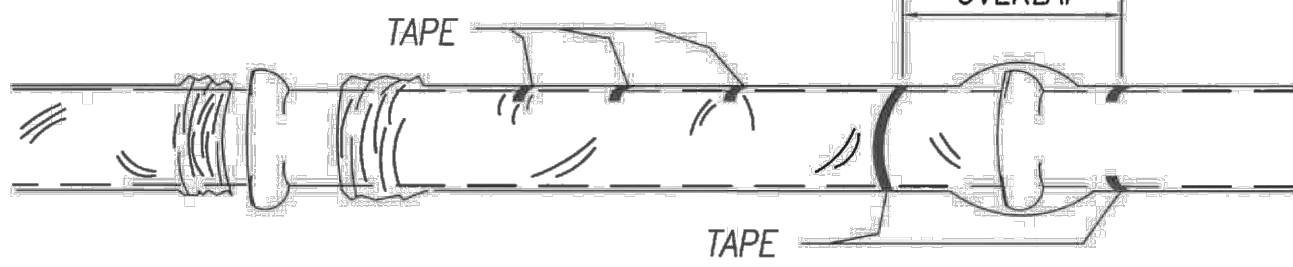


CONSTRUCTION DETAILS

EXCAVATION FOR WATER WORKS CONNECTION

APPROVED	DATE	STANDARD DRAWING
	1/4/13	105-4

TAPE MATERIAL
POLYETHYLENE TAPE 1-1/2" WIDE AS RECOMMENDED BY THE FILM MANUFACTURER.



THE FOLLOWING METHOD ILLUSTRATES THE PROCEDURE FOR APPLYING POLYETHYLENE:

CUT POLYETHYLENE TUBE TO A LENGTH APPROXIMATELY TWO FEET LONGER THAN THE LENGTH OF THE PIPE SECTION. SLIP THE TUBE AROUND THE PIPE, CENTERING IT TO PROVIDE A ONE-FOOT OVERLAP ON EACH ADJACENT PIPE SECTION, AND BUNCHING IT ACCORDION FASHION LENGTHWISE UNTIL IT CLEARS THE PIPE ENDS.

LOWER THE PIPE INTO THE TRENCH AND MAKE THE PIPE JOINT WITH THE PRECEDING SECTION OF PIPE. A SHALLOW BELL HOLE MUST BE MADE AT THE JOINTS TO FACILITATE INSTALLATION OF THE POLYETHYLENE TUBE.

AFTER ASSEMBLING THE PIPE JOINT, MAKE THE OVERLAP OF THE POLYETHYLENE TUBE. PULL THE BUNCHED POLYETHYLENE FROM THE PRECEDING LENGTH OF PIPE, SLIP IT OVER THE END OF THE NEW LENGTH OF PIPE AND SECURE IT IN PLACE. THEN SLIP THE END OF THE POLYETHYLENE FROM THE NEW PIPE SECTION OVER THE END OF THE PRECEDING LENGTH OF PIPE, SECURE THE OVERLAP IN PLACE, TAKE UP THE SLACK WIDTH TO MAKE IT SNUG, BUT NOT TO TIGHT, FIT ALONG THIS BARREL OF PIPE, SECURING THE FOLD AT QUARTER POINTS.

REPAIR ANY RIPS, PUNCTURES, OR OTHER DAMAGE TO THE POLYETHYLENE WITH ADHESIVE TAPE OR WITH A SHORT LENGTH OF THE POLYETHYLENE TUBE CUT OPEN, WRAPPED AROUND THE PIPE, AND SECURED IN PLACE. PROCEED WITH INSTALLATION OF THE NEXT SECTION OF PIPE IN THE SAME MANNER.

PIPE-SHAPED APPURTENANCES:

BENDS, REDUCERS, OFFSETS AND OTHER PIPE-SHAPED APPURTENANCES SHALL BE COVERED WITH POLYETHYLENE IN THE SAME MANNER AS THE PIPE.

JUNCTIONS BETWEEN WRAPPED AND UNWRAPPED PIPE:

WHERE POLYETHYLENE WRAPPED PIPE JOINS A PIPE WHICH IS NOT WRAPPED, EXTEND THE POLYETHYLENE TUBE TO COVER THE UNWRAPPED PIPE A DISTANCE OF AT LEAST TWO FEET. SECURE THE END WITH CIRCUMFERENTIAL TURNS OF TAPE.

MATERIAL SPECIFICATIONS
IN ACCORDANCE WITH ASTM D-1248 TYPE I, CLASS A OR C.
GRADE E-1 FLOW RATE 0.4 MAX. DIELECTRIC STRENGTH
VOLUME RESISTIVITY MIN. 10¹⁴ OHM-CM @ 75-107°F
POLYETHYLENE FILM THICKNESS .8 MILS
TENSILE STRENGTH
ELONGATION
DIELECTRIC STRENGTH
1200 P.S.I. MIN
300% MIN
800 VOLTS/MIL

ODD-SHAPED APPURTENANCES:

WRAPPED PRACTICALLY IN A TUBE SHALL BE WRAPPED WITH A FLAT SHEET OR SPLIT LENGTH OF POLYETHYLENE TUBE. THE SHEET SHALL BE PASSED UNDER THE APPURTENANCE AND BROUGHT UP AROUND THE BODY. SEAMS SHALL BE MADE BY BRINGING THE EDGES TOGETHER, FOLDING OVER TWICE, AND TAPPING DOWN. SLACK WIDTH AND OVERLAPS AT JOINTS SHALL BE HANDLED AS DESCRIBED ABOVE. TAPE POLYETHYLENE SECURELY IN PLACE AT VALVE STEM AND OTHER PENETRATIONS.

BACKFILL FOR POLYETHYLENE WRAPPED PIPE:

BACKFILL MATERIAL SHALL BE THE SAME AS SPECIFIED FOR PIPE WITHOUT POLYETHYLENE WRAPPING. SPECIAL CARE SHOULD BE TAKEN TO PREVENT DAMAGE TO THE POLYETHYLENE WRAPPING WHEN PLACING BACKFILL. BACKFILL MATERIAL SHOULD BE FREE FROM CINDERS, REFUSE, BOULDERS, ROCKS, STONES OR OTHER MATERIAL THAT COULD DAMAGE POLYETHYLENE.

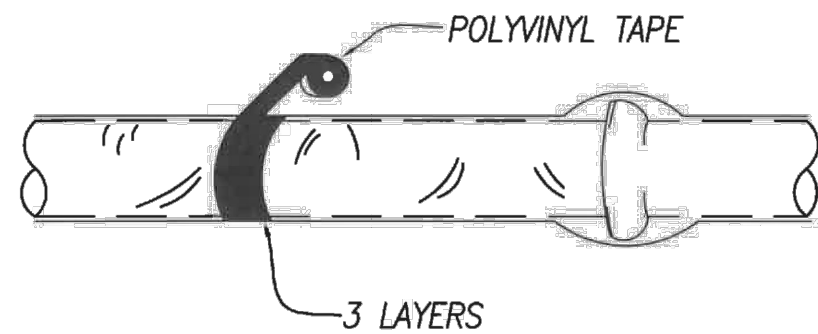
TUBE SIZE REQUIRED							
PIPE DIAMETER	4"	6"	8"	10"	12"	16"	20"
MIN. FLAT TUBE WIDTH (INCHES)	14	16	20	24	27	34	41



CONSTRUCTION DETAILS

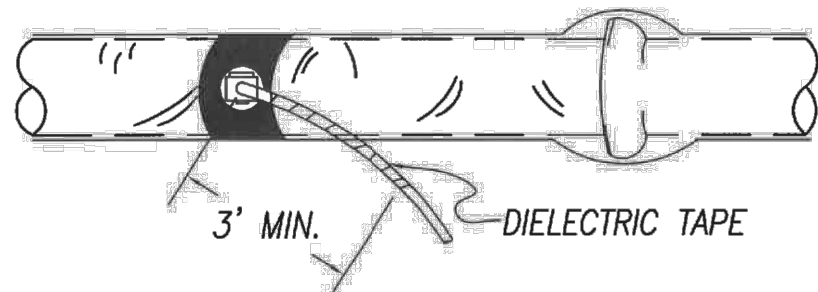
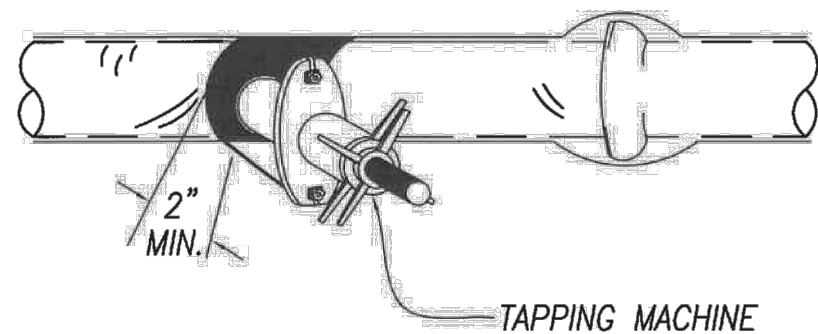
POLYETHYLENE ENCASEMENT - GRAY AND DUCTILE IRON PIPE

APPROVED	DATE	STANDARD DRAWING
	1/4/13	105-5



OPENINGS FOR BRANCHES, SERVICE TAPS, BLOW-OFFS, AIR VALVES, AND SIMILAR APPURTENANCES SHALL BE MADE BY:

- 1.) WRAPPING (3) THREE LAYERS OF POLYVINYL - COMPATIBLE ADHESIVE TAPE COMPLETELY AROUND THE PIPE TO COVER THE AREA WHERE THE TAPPING MACHINE AND CHAIN WILL BE MOUNTED, EXTENDING A MINIMUM OF 2" BEYOND THE MOUNTING SURFACE.
- 2.) MOUNT THE TAPPING MACHINE ON THE PIPE AREA COVERED BY THE TAPE AND MAKE THE TAP AND INSTALL THE FERRULE DIRECTLY THROUGH THE TAPE AND POLYETHYLENE.
- 3.) INSPECT THE ENTIRE CIRCUMFERENTIAL AREA FOR DAMAGE AND MAKE ANY NECESSARY REPAIRS WITH TAPE.
- 4.) ON HOUSE SERVICES, TO MINIMIZE THE POSSIBILITY OF DISSIMILAR METAL CORROSION AT SERVICE CONNECTIONS, WRAP THE FERRULE AND A MINIMUM CLEAR DISTANCE OF THREE FEET OF THE COPPER SERVICE WITH POLYETHYLENE OR A SUITABLE DIELECTRIC TAPE.



CONSTRUCTION DETAILS

TAPPING POLYETHYLENE ENCASED PIPE

APPROVED	DATE	STANDARD DRAWING
	1/4/13	105-5A

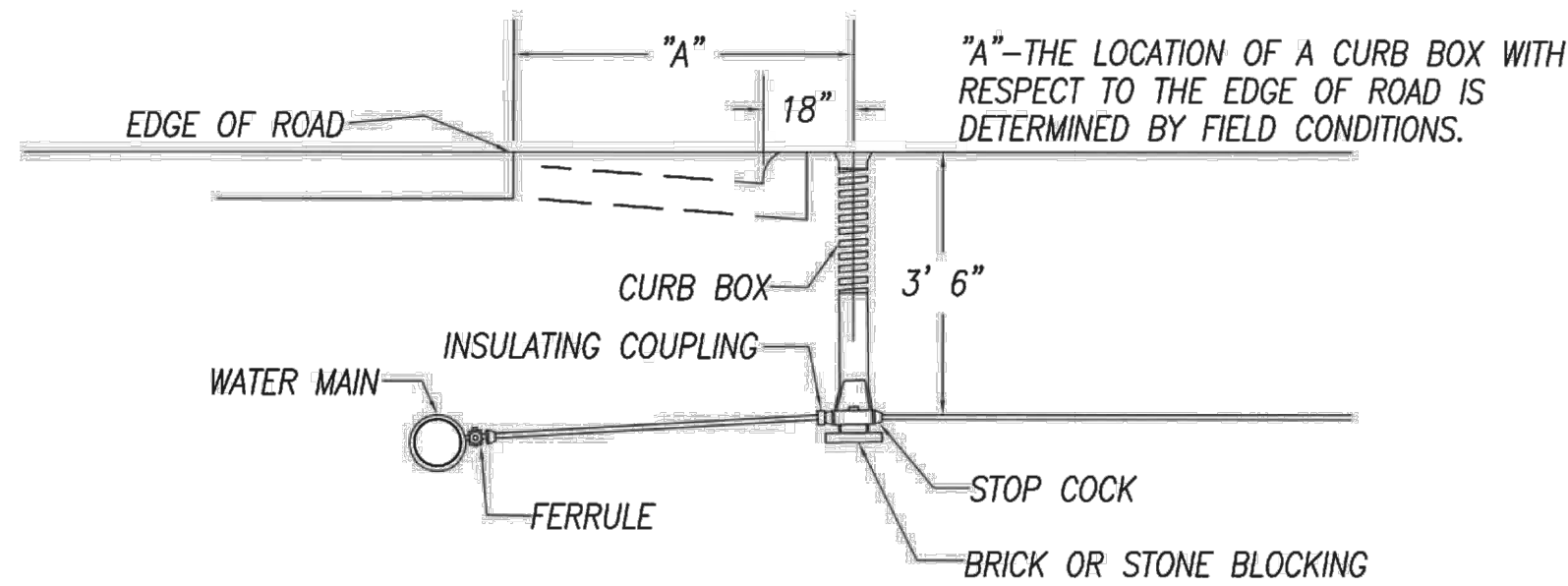
BACKFILL CROSS SECTION	METHOD DESIGNATION	FOR NOMINAL PIPE SIZES	PIPE AREA	BALANCE OF BACKFILL
	A	UNDER 12"	EMBEDMENT MATERIAL	GRANULAR MATERIAL
	B	UNDER 12"	EMBEDMENT MATERIAL	COARSE FILL
	A	12" & 16"	EMBEDMENT MATERIAL	GRANULAR MATERIAL
	B	12" & 16"	EMBEDMENT MATERIAL	COARSE FILL
	A	20" & OVER	EMBEDMENT MATERIAL	GRANULAR MATERIAL



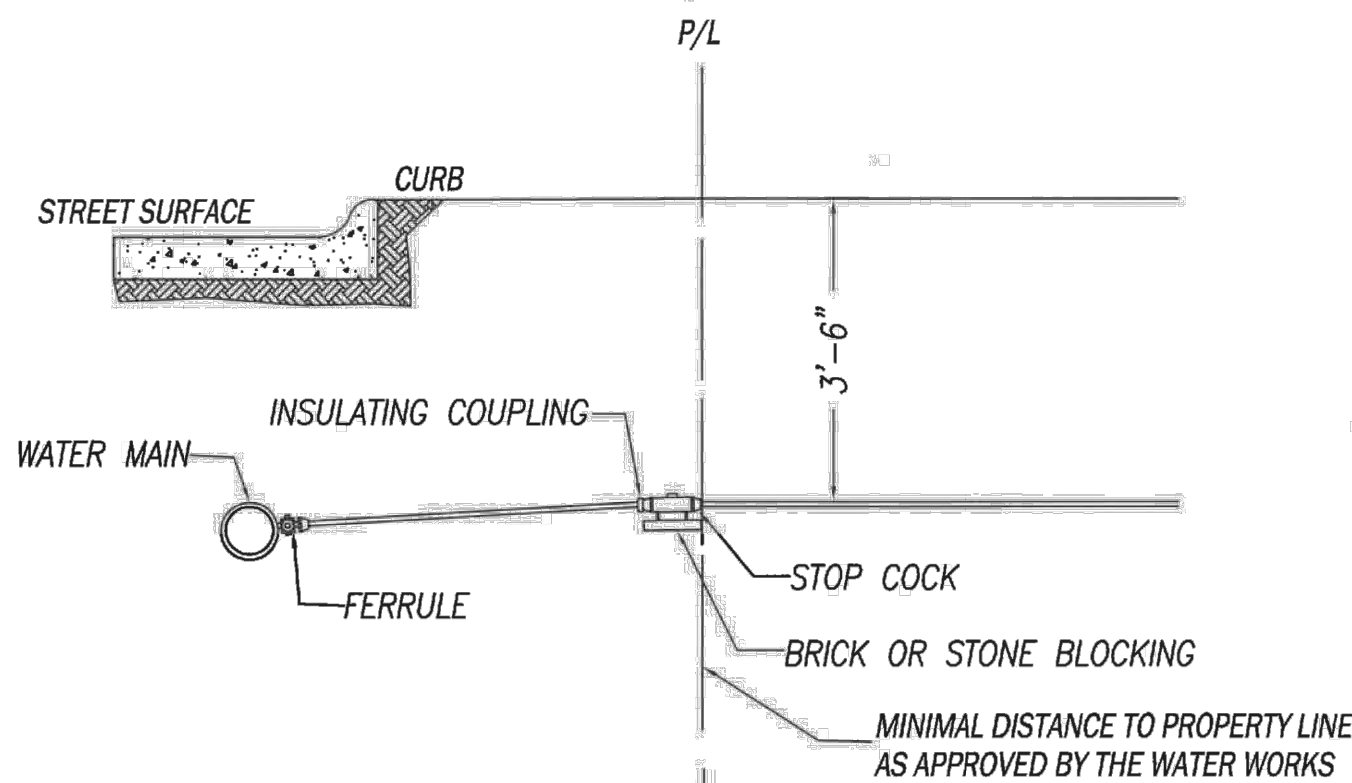
BACKFILL

TYPICAL BACKFILL REQUIREMENT

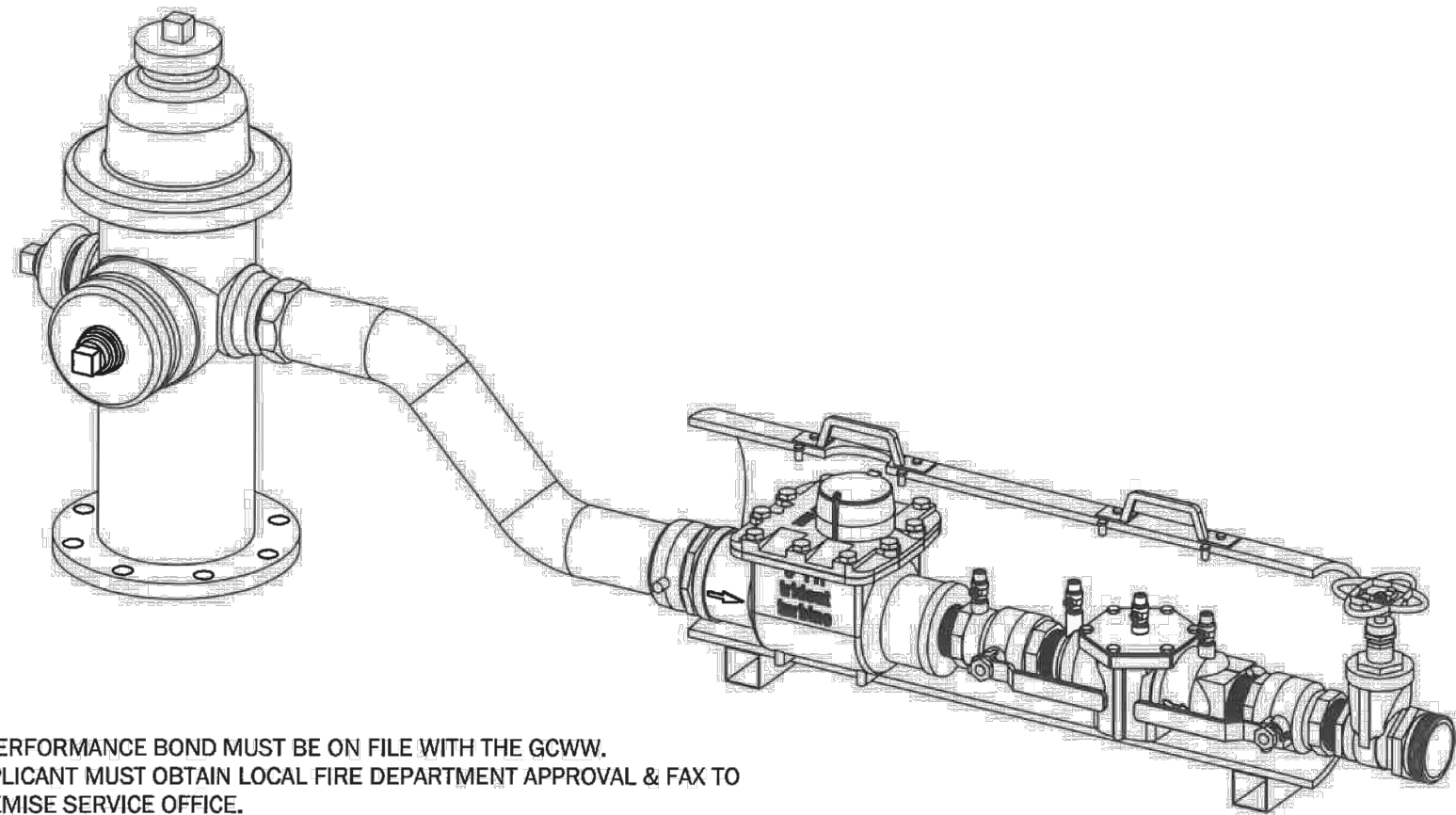
APPROVED	DATE	STANDARD DRAWING
	1/4/13	106-1



SERVICE BRANCHES		
INSTALLATION WITH CURB BOX		
APPROVED	DATE	STANDARD DRAWING
	1/4/13	107-1



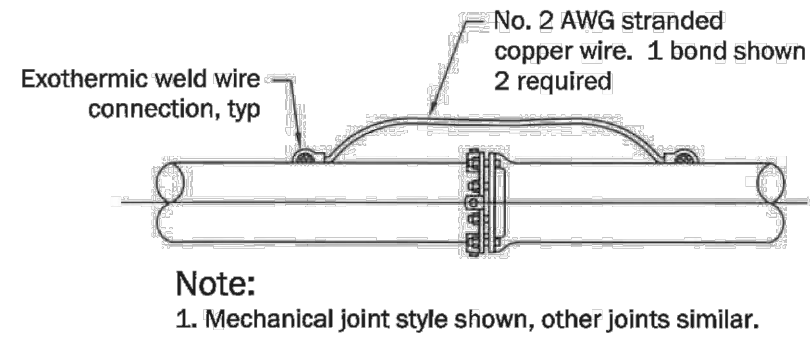
SERVICE BRANCHES		
INSTALLATION WITHOUT CURB BOX		
APPROVED	DATE	STANDARD DRAWING
	1/4/13	107-2



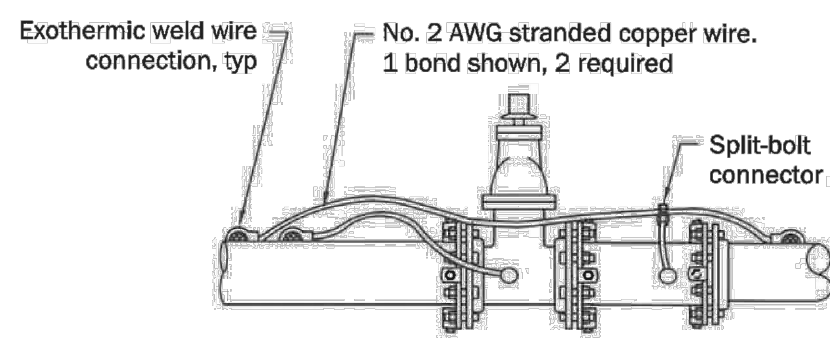
- A) A PERFORMANCE BOND MUST BE ON FILE WITH THE GCWW.
B) APPLICANT MUST OBTAIN LOCAL FIRE DEPARTMENT APPROVAL & FAX TO PREMISE SERVICE OFFICE.
C) WHEN A & B ARE MET, CALL FIELD SERVICES SECTION 48 HOURS IN ADVANCE TO REQUEST A METER. PERMIT, METER AND SPANNER WRENCH MAY BE PICKED UP AT THE FIELD SERVICES DESK.
D) ONLY AN APPROVED FIRE HYDRANT SPANNER WRENCH MAY BE USED ON THE HYDRANT VALVE.
E) ANY FIRE HYDRANT CAP NOT BEING USED MUST BE TIGHTENED TO AVOID LEAKING.
F) THE FIRE HYDRANT VALVE MUST BE TURNED ON SLOWLY AND FULLY.
G) THE OUTLET VALVE ON THE METER SETTING MUST BE USED TO CONTROL THE FLOW OF WATER.
H) WHERE TRAFFIC CROSSES HOSES, JUMPER BOARDS MUST BE USED.
I) EVERY EVENING, REMOVE METER, PUMP OUT HYDRANT AND PUT CAP BACK ON.
J) WHEN JOB IS COMPLETE, RETURN METER AND SPANNER TO GCWW.
K) USER IS RESPONSIBLE FOR THE RETURN OF ALL ITEMS ON THE METER AND ENCLOSURE. IF ANYTHING IS MISSING OR DAMAGED, THE USER WILL BE CHARGED FOR ITS REPLACEMENT.
L) FIRE HYDRANT VALVE MUST BE TURNED OFF SLOWLY TO AVOID DAMAGE TO PUBLIC WATER SYSTEM.

PERMIT MAY BE REVOKED FOR FAILURE TO COMPLY WITH THESE REGULATIONS.

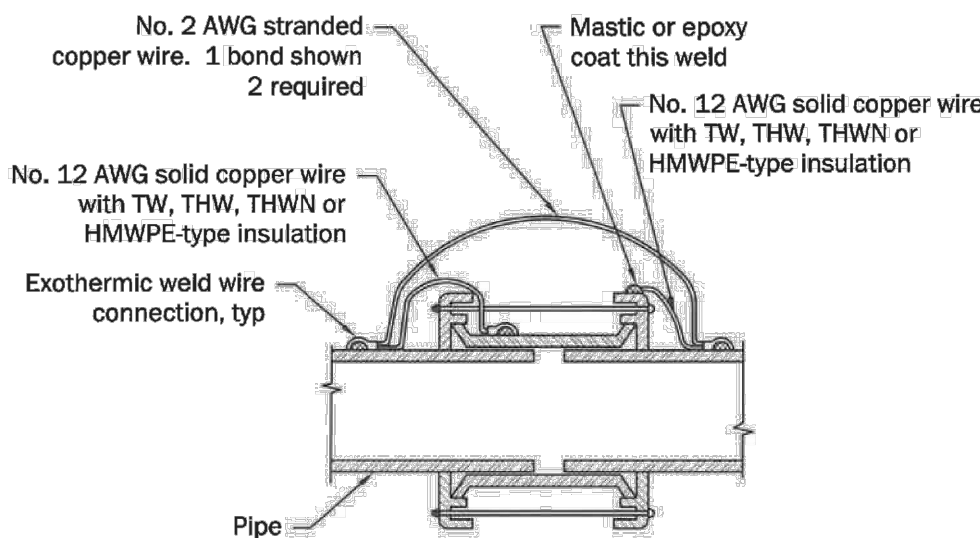
TEMPORARY WATER		
CONNECTION TO FIRE HYDRANT FOR TEMPORARY WATER		
APPROVED	DATE	STANDARD DRAWING
	1/4/13	108-16



Uncoated & Dielectric Coated Pipe



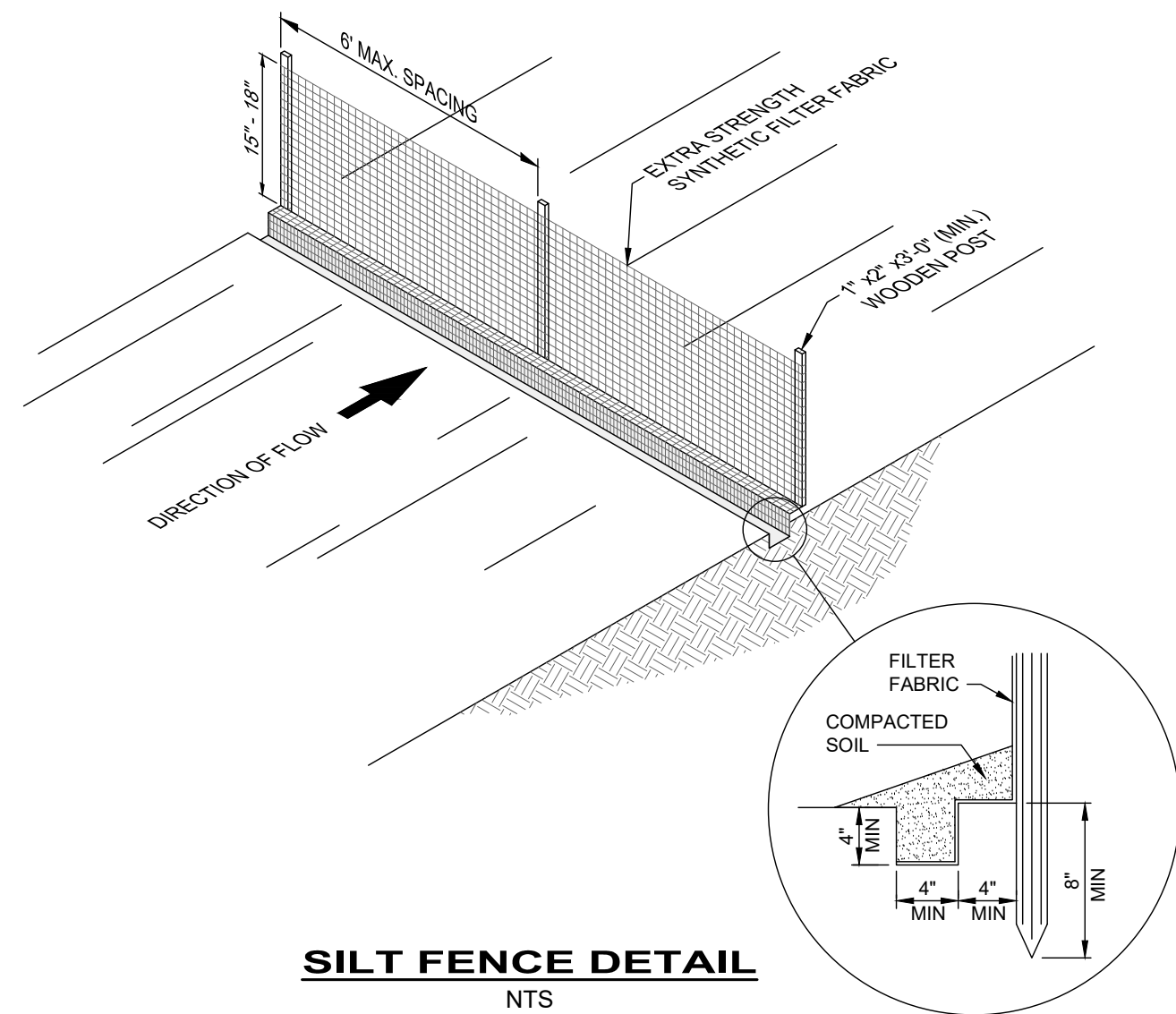
Fittings & Valves



Flexible Sleeve Coupling

- General Note:
1. All wire insulation is USE-type or HMWPE-type.

CORROSION CONTROL DETAILS AT JOINT BONDS		
UNCOATED & DIELECTRIC COATED PIPE, FLEXIBLE SLEEVE COUPLING, & FITTINGS AND VALVES		
APPROVED	DATE	STANDARD DRAWING
	1/4/13	109-3A



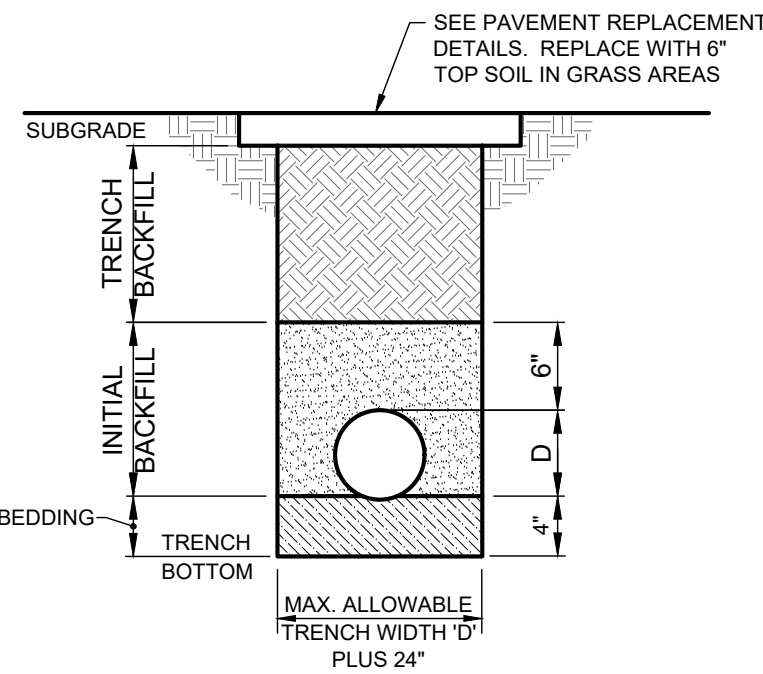
SILT FENCE DETAIL

NTS

NOTES:

FILTER FABRIC SHALL BE FASTENED TO WOODEN POSTS USING 1/2" HEAVY DUTY STAPLES. FILTER FABRIC SHALL BE PLACED IN A CONTINUOUS ROLL TO MINIMIZE THE OCCURRENCE OF JOINTS. WHERE JOINTS CANNOT BE AVOIDED, FABRIC SHALL BE SPLICED TOGETHER AT SUPPORT POSTS, WITH A MINIMUM OF 6 INCH OVERLAP, AND SECURELY SEALED.

ALTERNATELY, A 14 GAUGE WIRE FENCE REINFORCEMENT HAVING A MINIMUM HEIGHT OF 16 INCHES AND A MAXIMUM MESH SPACING OF 6 INCHES MAY BE USED AS A FENCE SUPPORT. IF THE WIRE REINFORCEMENT IS USED, STANDARD STRENGTH SYNTHETIC FILTER FABRIC MAY BE USED AND WOODEN POSTS MAY BE SPACED AT 10 FOOT INTERVALS. THE WIRE REINFORCING SHALL BE BURIED A MINIMUM OF 4 INCHES AND SHALL BE FASTENED TO THE WOODEN POSTS USING 1" HEAVY DUTY STAPLES.



WATER LINE EMBEDMENT

NTS

NOTES:

- SUITABLE BEDDING AND INITIAL BACKFILL MATERIAL SHALL CONSIST OF NATURALLY OCCURRING SAND OR CLAY FREE FROM TRASH, ROOTS, DEBRIS, EXCESSIVE MOISTURE AND OBJECTS LARGER THAN 3/4".
- PIPE TRENCH WALL SHALL BE VERTICAL TO THE TOP OF THE INITIAL BACKFILL.
- PROVIDE SELECT FILL No. 8 OR No. 57 STONE FOR BEDDING MATERIAL TO THE DEPTH REQUIRED BY THE WATER UTILITY WHEN UNSTABLE TRENCH BOTTOMS ARE ENCOUNTERED, AS DETERMINED BY THE WATER UTILITY.
- MANUALLY COMPACT EMBEDMENT MATERIAL FILLING ALL VOIDS AROUND PIPE.
- TRENCH BACKFILL TYPE SHALL BE PER GENERAL NOTES AND SPECIFICATIONS.

BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: (609) 525-0544
WWW.VERDANTAS.COM

DATE	REVISION	NO	REVIEW	ISSUED FOR
			12/05/2025	
			SCALE:	
			DESIGNED BY:	QDB
			DRAWN BY:	QDB
			CHECKED BY:	DEB

ADDYSTON-CLEVES CONNECTION

PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

WATERLINE CONSTRUCTION
DETAILS

PROJECT NO.

35192

DISCIPLINE

CIVIL

SHEET NAME

DETAILS - 4

SHEET

7

OF

13

BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: (609) 525-0544
WWW.VERDANTAS.COM

ADDYSTON-CLEVELS CONNECTION

PROJECT
VILLAGE OF CLEVELS
HAMILTON COUNTY, OHIO

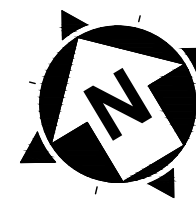
WATERPLAN AND PROFILE - 3

PROJECT NO.
35192

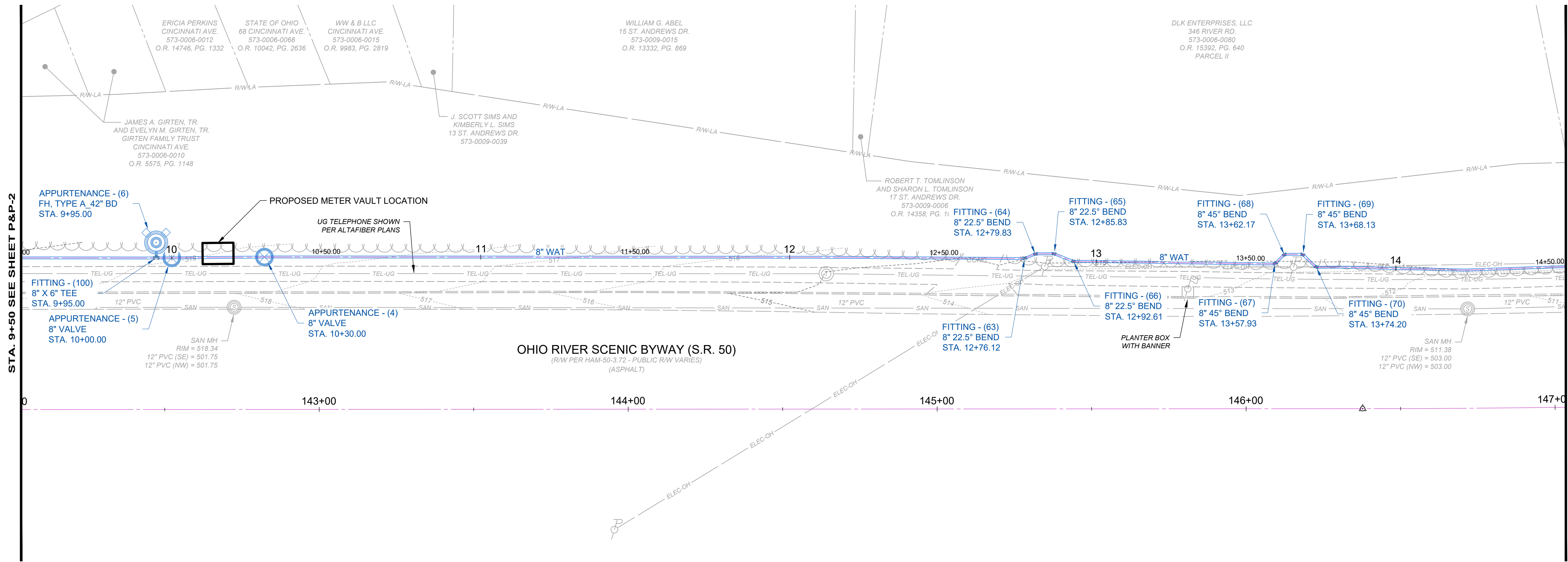
DISCIPLINE
CIVIL

SHEET NAME
P & P - 3

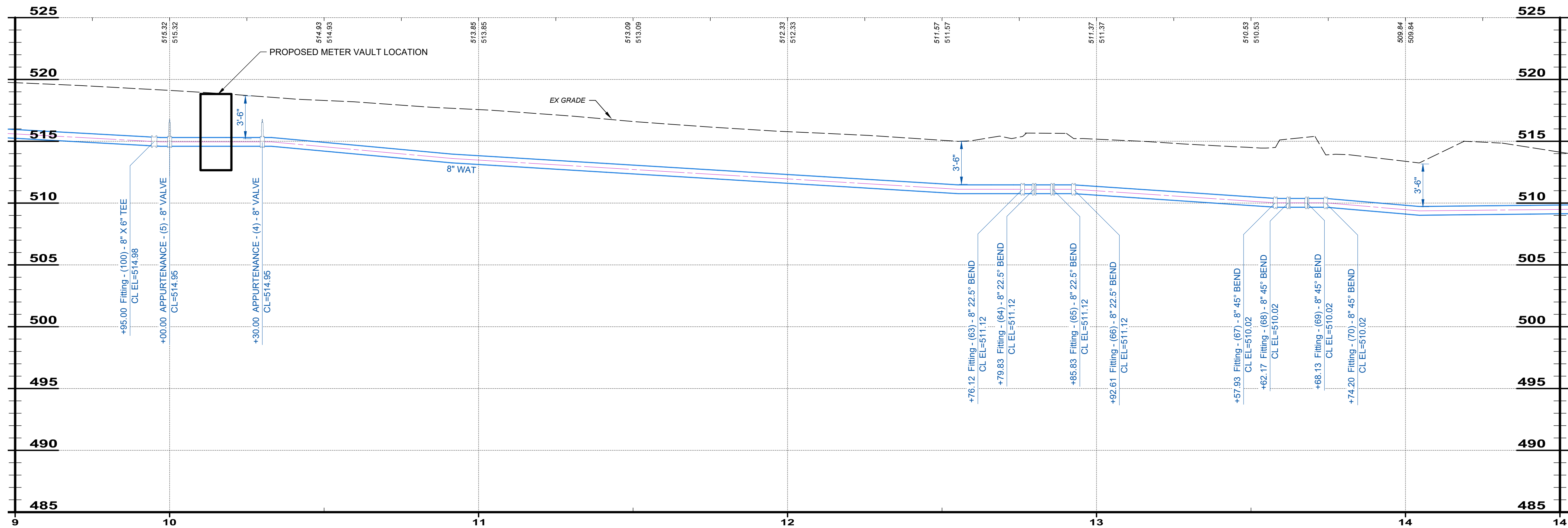
SHEET 10 OF 13



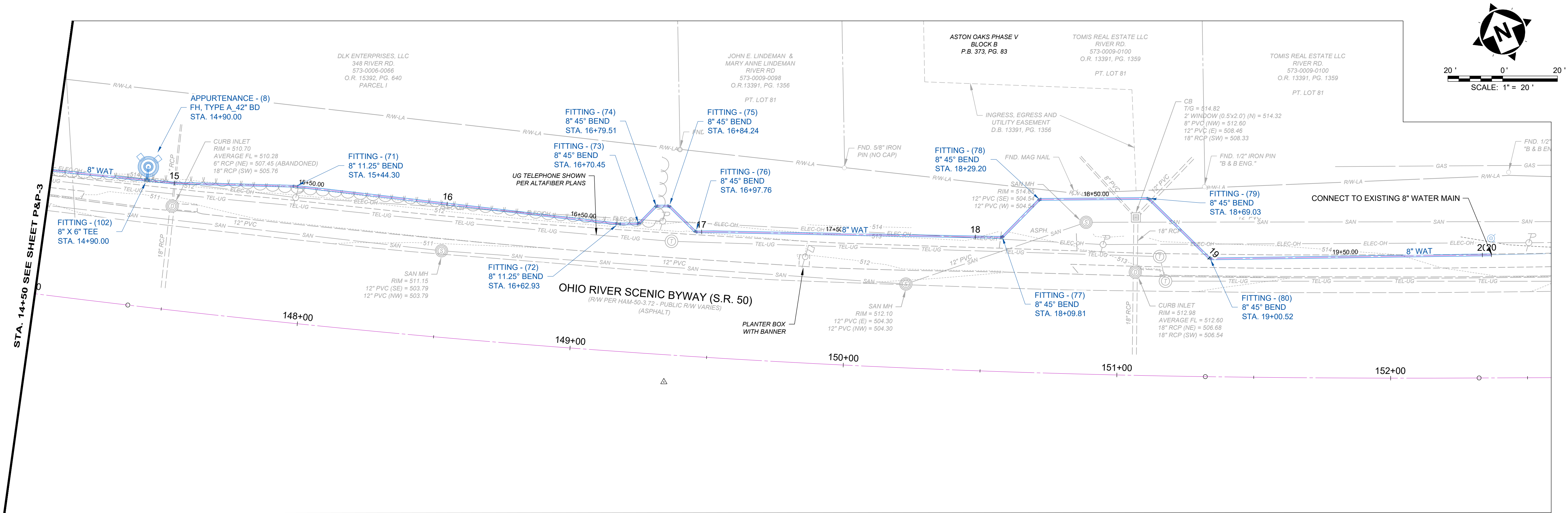
20' 0' 20'
SCALE: 1" = 20'



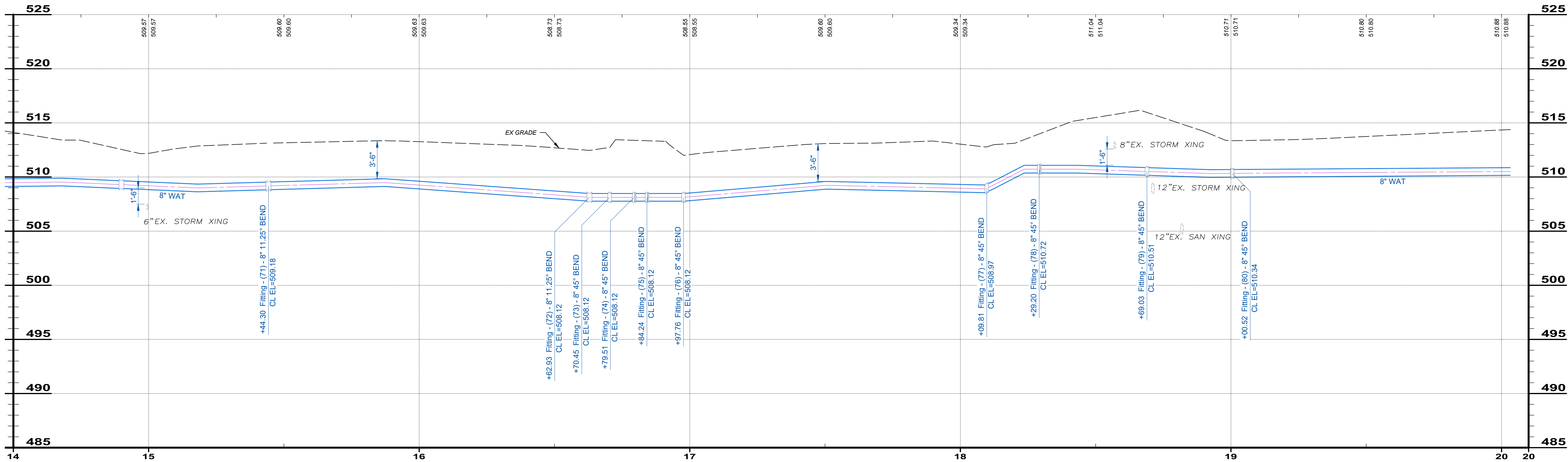
PLAN - 3



PROFILE - 3



PLAN - 4



PROFILE - 4

BID SET

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300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: (699) 525-0544
WWW.VERDANTAS.COM

DATE	REVISION	NO	REVIEW	ISSUED FOR:	PROJECT	WATERPLAN AND PROFILE - 4
				12/05/2025	ADDYSTON-CLEVELS CONNECTION PROJECT VILLAGE OF CLEVELS HAMILTON COUNTY, OHIO	
				SCALE:		
				DESIGNED BY: QDB		
				DRAWN BY: QDB		
				CHECKED BY: DEB		

PROJECT NO.
35192

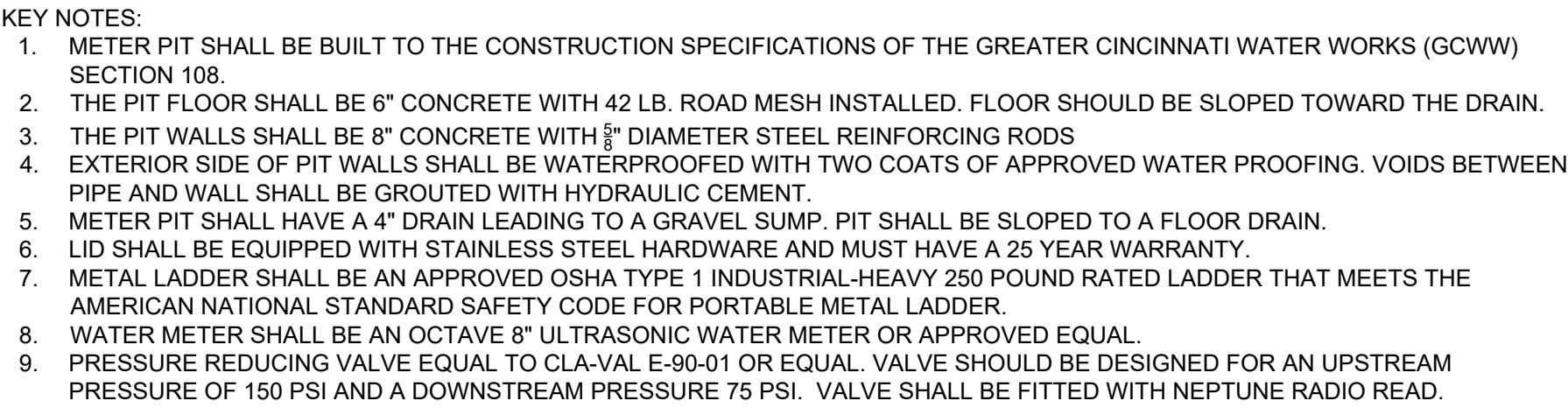
DISCIPLINE
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ISSUED FOR:	REVIEW	NO	REVISION	DATE
ISSUE DATE:	12/05/2025	.	.	
SCALE:				
DESIGNED BY:	QDB			
DRAWN BY:	QDB			
CHECKED BY:	DEB			

ADDYSTON-CLEVES CONNECTION

**PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO**

METER VAULT

PROJECT NO.	
35192	
DISCIPLINE	
CIVIL	
SHEET NAME	
METER VAULT	
SHEET	OF
12	13



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ADDYSTON-CLEVES CONNECTION

**PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO**

WATERPLAN AND PROFILE - 5

PROJECT NO.
35192

DISCIPLINE

CIVIL

SHEET NAME

& P -

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