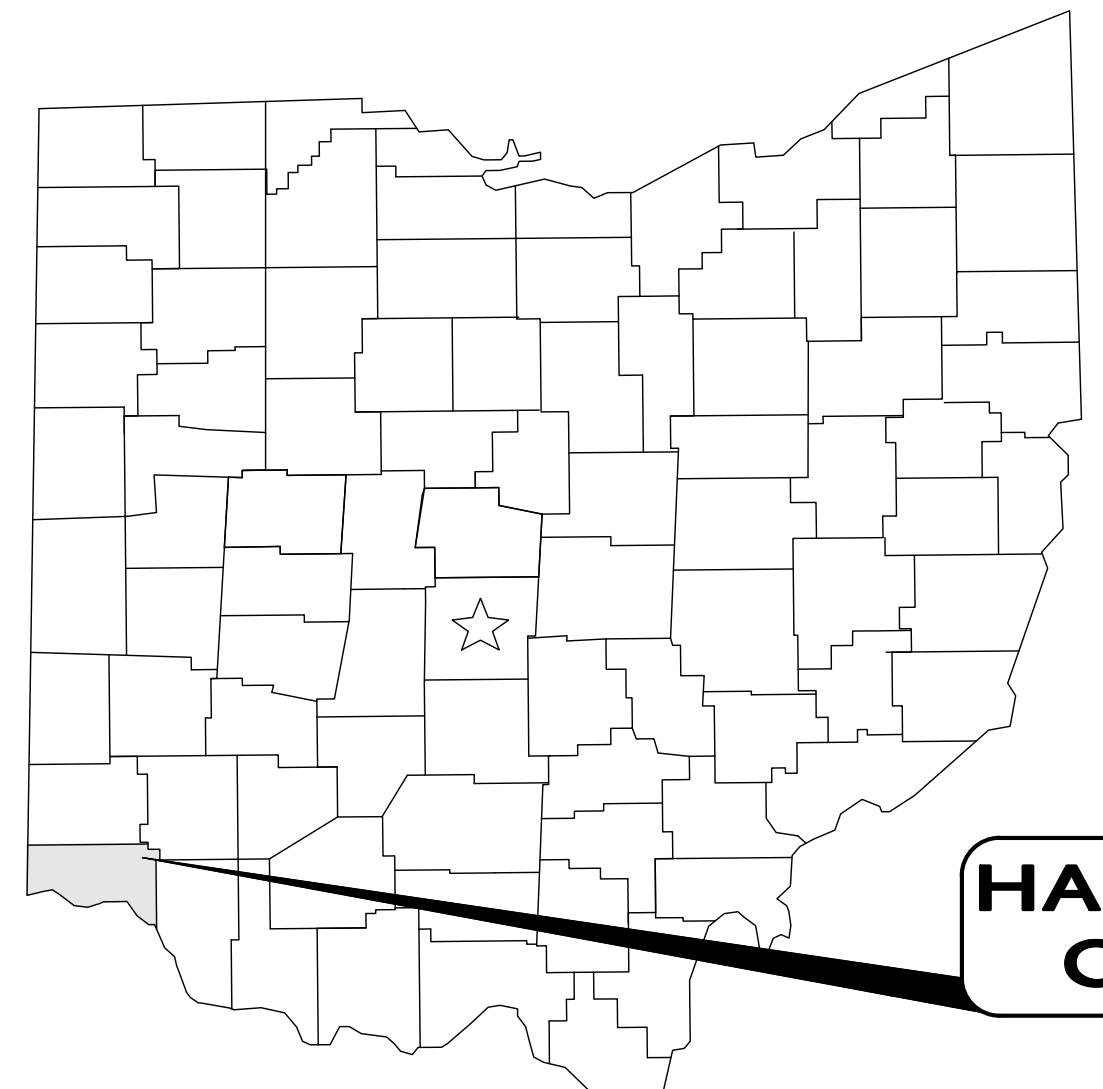


BID SET

ADDYSTON-CLEVES WDS CONNECTION PROJECT

VILLAGE OF CLEVES WATERWORKS
CLEVES, OH

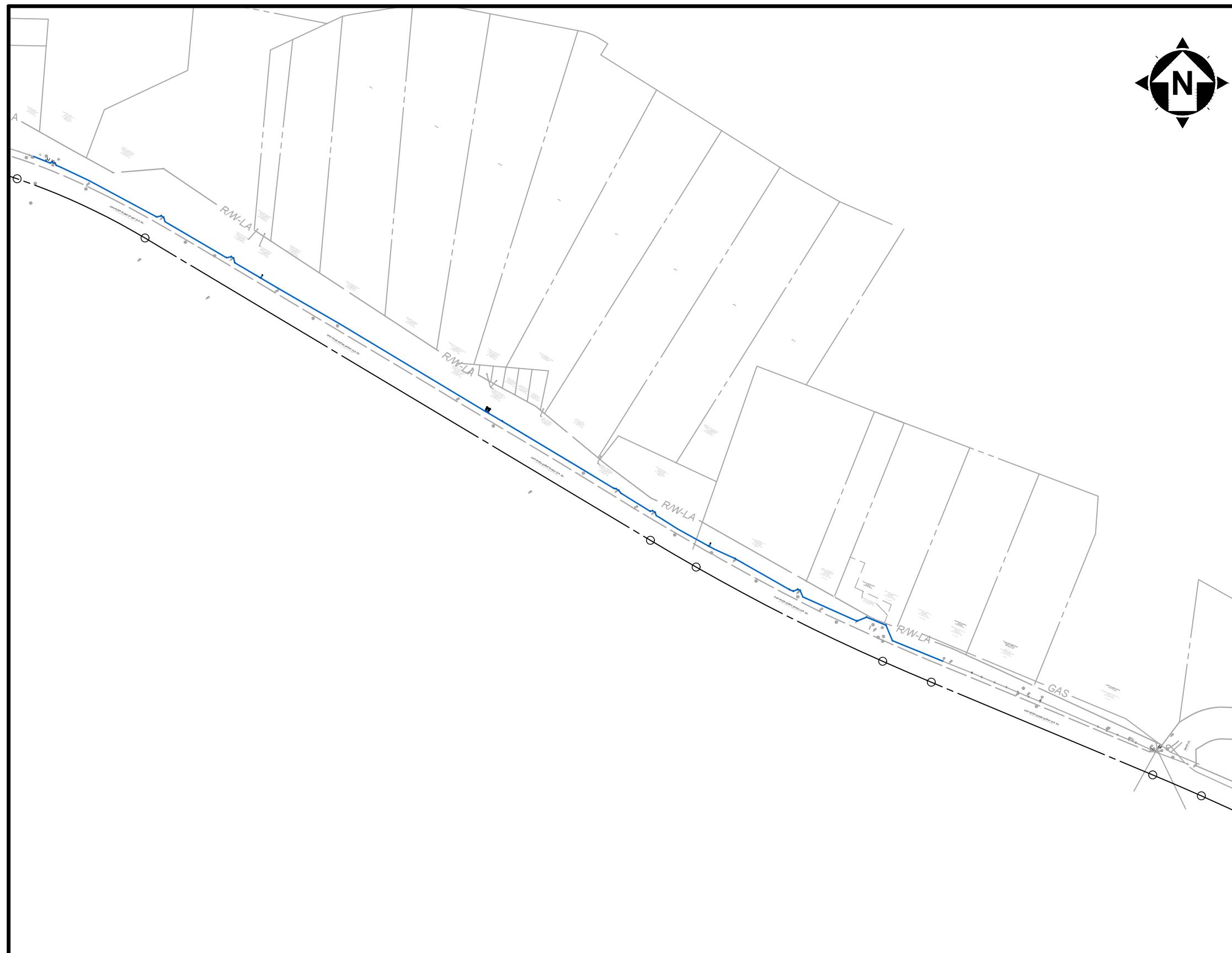
NOVEMBER 2025

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

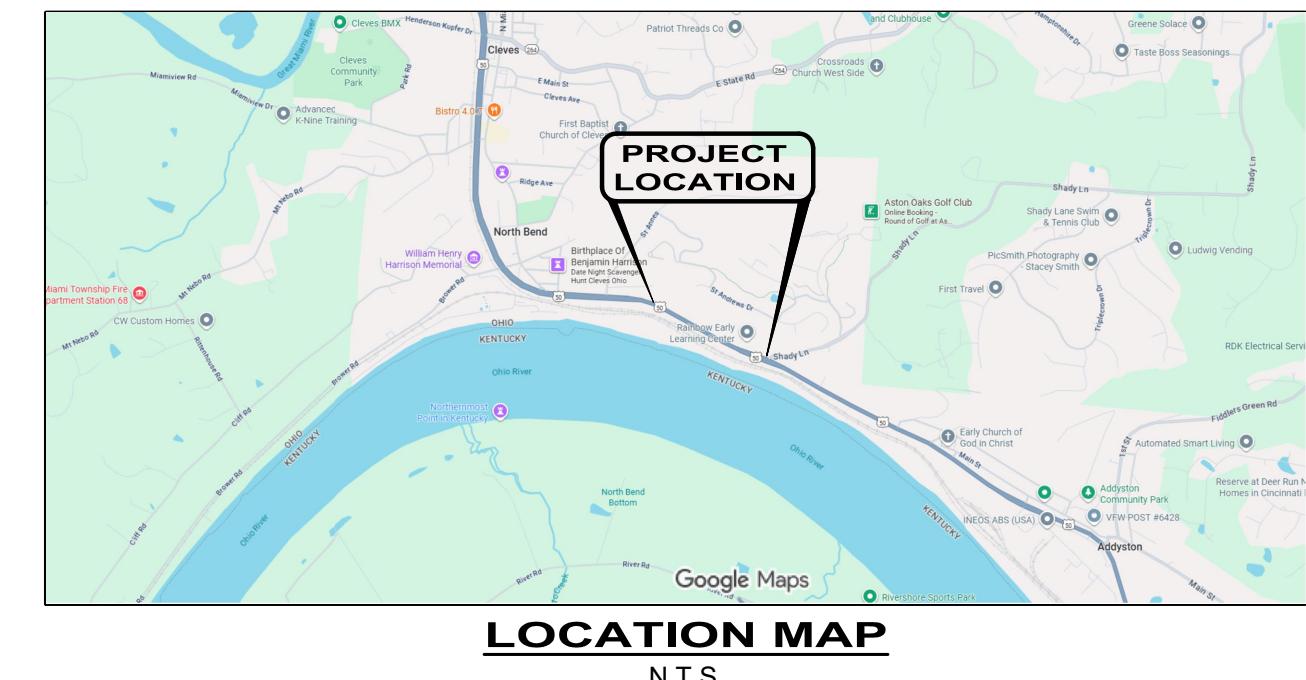
ODOT STANDARD CONSTRUCTION DRAWINGS

FIRE HYDRANT DETAIL
METER SETTING DETAIL
THRUST BLOCKING (REDUCER) DETAIL
THRUST BLOCKING DETAIL



INDEX MAP
SCALE 1":200'

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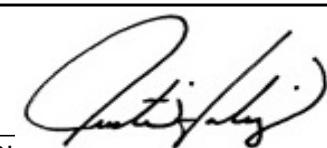


LOCATION MAP
N.T.S.

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

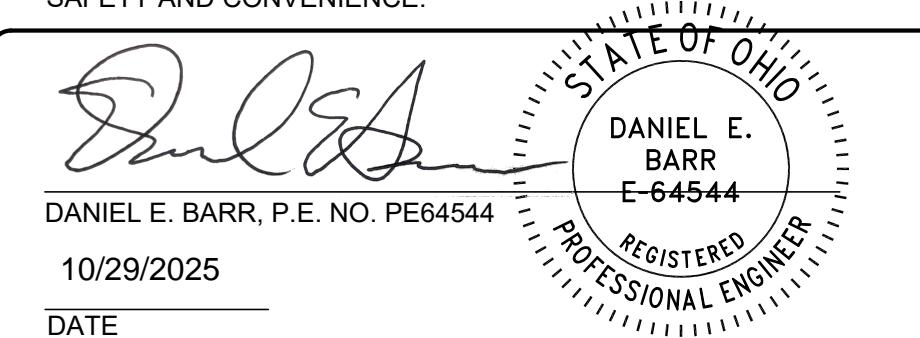
CONSTRUCTION PLAN APPROVALS:

 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 DETERIMENTAL 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
APPROVED Ohio Environmental Protection Agency	

GENERAL NOTES

GEN1 THE CITY OF CINCINNATI CONSTRUCTION AND MATERIAL SPECIFICATIONS TOGETHER WITH THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION, INCLUDING ALL SUPPLEMENTS THERETO, MOST RECENT EDITION, SHALL GOVERN ALL MATERIAL AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN IN THESE PLANS UNLESS OTHERWISE NOTED.

GEN2 ALL WORK SHALL BE COMPLETELY ACCEPTABLE TO THE VILLAGE OF CLEVES. NO WORK SHALL BE COMMENCED UNTIL ARRANGEMENTS HAVE BEEN MADE WITH CLEVES WATERWORKS FOR INSPECTION. NECESSARY LINE AND GRADE STAKING WILL BE PROVIDED BY THE CONTRACTOR. CUT SHEETS SHALL BE SUBMITTED TO THE CLEVES WATERWORKS SEVEN (7) FULL WORKING DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND MUST BE APPROVED BY THE VILLAGE OF CLEVES PRIOR TO THE BEGINNING OF CONSTRUCTION.

GEN3 PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS NECESSARY TO COORDINATE FULL-TIME INSPECTION SERVICE FOR THE PROPOSED WORK.

GEN4 THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ENGINEER AT LEAST SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION.

GEN5 TWENTY-FOUR (24) HOUR ADVANCE NOTIFICATION IS REQUIRED FOR ALL WORK REQUIRING INSPECTION, TESTING, OR APPROVAL BY THE ENGINEER.

GEN6 THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE CLEVES WATERWORKS AND REQUEST A FINAL PUNCH-OUT INSPECTION OF THE SITE ONCE ALL ITEMS ON THE APPROVED PLANS HAVE BEEN COMPLETED.

GEN7 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO MAKING HIS BID, INCLUDING BUT NOT LIMITED TO THE REMOVAL OF ANY AND ALL ITEMS.

GEN8 THE CONTRACTOR AND SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR AND SUBCONTRACTOR SHALL ALSO ADOBE BY ALL CITY ORDINANCES AND STATE/FEDERAL LAWS. THE CONTRACTORS AND ALL SUBCONTRACTORS SHALL SUBMIT THEIR SAFETY PLANS PRIOR TO CONSTRUCTION. A COMPLETE SET OF PLANS, SPECIFICATIONS AND SAFETY PLAN MUST BE ON THE JOB SITE AT ALL TIMES AND AVAILABLE FOR VIEWING.

GEN9 THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL CLEARANCES EXIST PER THE APPROVED PLANS. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO 811 FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.

GEN10 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE VILLAGE AND/OR ENGINEER OF RECORD (EO) ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE LOCATIONS OR DEPTHS OF THE UNDERGROUND FACILITIES AS SHOWN ON THE PLANS. CONTRACTOR MUST GIVE ADEQUATE NOTICE TO THE APPROPRIATE UTILITY COMPANY BEFORE ANY EXCAVATION NEAR A KNOWN UTILITY PER STATE LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

GEN11 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE Affected UTILITY.

GEN12 WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF LAYING PIPE OR DUCT FOR THE EOR TO DETERMINE THE EXACT ELEVATION AND MAKE ANY NECESSARY ADJUSTMENTS. COST OF THE ABOVE SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

GEN13 ALL MATERIALS INCLUDING BUT NOT LIMITED TO PIPING, APPURTENANCES, MANHOLES, GRAVEL, ETC. TO BE UTILIZED FOR DEDICATED PUBLIC UTILITIES OR ROADWAYS MUST BE APPROVED BY THE EOR. IN ADDITION, ALL CONCRETE PIPE, STORM, AND SANITARY SEWER STRUCTURES WILL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT SAID PIPE, STORM AND SANITARY STRUCTURES HAVE BEEN INSPECTED BY THE CITY AND MEETS THEIR SPECIFICATIONS. PIPE OR STRUCTURES WITHOUT PROPER IDENTIFICATION WILL NOT BE PERMITTED FOR INSTALLATION.

GEN14 ALL FIELD TILES BROKEN DURING EXCAVATION SHALL BE REPLACED BY THE CONTRACTOR TO ORIGINAL CONDITION OR CONNECTED TO THE STORM SEWER SYSTEM AS DIRECTED BY THE EOR. THE COST OF THIS WORK SHALL BE PAID FOR BY THE CONTRACTOR.

GEN15 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN16 OSHA PROHIBITS CRANE AND BACKHOE OPERATIONS WITHIN 10 FEET OF ENERGIZED PRIMARY CONDUCTORS. TEMPORARY RELOCATION OF ELECTRICAL UTILITIES, INCLUDING RESTRAINT OF POLES, RELOCATION OF POLES, AND RUBBER COVERING OF ENERGIZED CONDUCTORS MAY BE REQUIRED. THE COORDINATION AND COST OF THESE SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY RESTRAIN POLES IF THE METHOD OF SUPPORT HAS BEEN SUBMITTED TO AND APPROVED BY THE UTILITY COMPANY.

GEN17 ANY SUBSURFACE INVESTIGATIONS THAT HAVE BEEN MADE ON THIS PROJECT FOR DESIGN AND ESTIMATING PURPOSES ARE INCLUDED AS AN APPENDIX TO THE PROJECT MANUAL FOR THE CONTRACTOR'S REFERENCE. LOGS AND TEST DATA ARE NOT REPRESENTED AS A COMPLETE DESCRIPTION OF THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR SHALL EXAMINE THIS INFORMATION AND OBTAIN ADDITIONAL INFORMATION AS NECESSARY.

GEN18 REMOVE AND STOCKPILE ALL TOPSOIL PRIOR TO ANY EXCAVATING. TOPSOIL RESPREAD SHALL BE A MINIMUM OF 6 INCHES.

GENERAL NOTES

GEN19 THE CONTRACTOR IS RESPONSIBLE FOR PROPER DISPOSAL OF ALL CONSTRUCTION DEBRIS INCLUDING BUT NOT LIMITED TO EXCESS SOIL, ROCK, OR ANY OTHER TYPE MATERIALS. THE CONTRACTOR SHALL NOT FILL ANY WETLANDS, LOW LANDS, FLOOD PLAINS, OR DRAINAGE WAYS WITH SAID DEBRIS WITHOUT OBTAINING PROPER APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE, OR FEDERAL AGENCIES.

GEN20 ANY EXISTING UTILITY (GAS, ELECTRIC, CABLE TELEVISION, TELEPHONE, WATER LINE, STORM OR SANITARY APPURTENANCE, ETC.) IN OR OUTSIDE THE CONSTRUCTION LIMITS DAMAGED DURING THE CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE UTILITY.

GEN21 THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS AND STAKES AND IN CASE OF WILLFUL OR CARELESS DESTRUCTION, THEY SHALL BE CHARGED WITH THE RESULTING EXPENSE OF REPLACEMENT AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. ANY EXISTING PROPERTY CORNER PINS OR MONUMENTS DAMAGED OR DESTROYED BY CONSTRUCTION SHALL BE RESET BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE UPON COMPLETION OF THE PROJECT PRIOR TO FINAL PAYMENT. A CERTIFICATION SHALL BE FURNISHED BY A OH REGISTERED SURVEYOR, STATING THAT SAID DAMAGES HAVE BEEN RESTORED. THE CONTRACTOR SHALL PROVIDE SITE EROSION CONTROL TO PREVENT RUNOFF WATER FROM THE SITE FROM CARRYING SAND, SILT, DIRT, ETC. ONTO PRIVATE PROPERTY, OR INTO ANY STORM SEWER OR DRAINAGE CHANNEL. EROSION CONTROL SHALL CONFORM WITH THE REQUIREMENTS OF SPECIFICATIONS AND DRAWINGS.

GEN22 CARE SHALL BE EXERCISED WHEN WORKING THE AREA AROUND EXISTING TREES AND SHRUBS. ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL THAT ARE DAMAGED BY THE CONTRACTOR WILL HAVE TO BE REPLACED BY THE CONTRACTOR, AT HIS EXPENSE AND TO THE SATISFACTION OF THE OWNER.

GEN23 EXISTING STRUCTURES TO BE REMOVED OR DEMOLISHED REQUIRE A "DEMOLITION PERMIT" ISSUED BY THE VILLAGE OF CLEVES.

GEN24 THE OPEN BURNING OF SITE CLEARING DEBRIS, TRASH, ETC. IS PROHIBITED IN THE VILLAGE.

GEN25 THE CONTRACTOR IS RESPONSIBLE FOR THE PROVISION AND MAINTENANCE OF A PORTABLE TOILET ON THE SITE DURING ALL PHASES OF CONSTRUCTION.

GEN26 ALL ITEMS OF WORK SPECIFIED ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.

GEN27 CONTRACTOR SHALL PROVIDE COMPAKTED GRANULAR BACKFILL BETWEEN ALL UTILITY CROSSINGS.

GEN28 CONTRACTOR SHALL PERFORM ALL WORK DURING DAYLIGHT HOURS.

GEN29 THE LOCATIONS FOR ALL SERVICE CONNECTIONS MUST BE FIELD VERIFIED BY CLEVES WATERWORKS.

GEN30 FOR THE PURPOSE OF ESTIMATING, THE CONTRACTOR SHALL INCLUDE ALL TESTING, COUPLINGS, BLOCKING, AND APPURTENANCES REQUIRED FOR CONNECTION TO ALL EXISTING WATER MAINS.

GEN31 UNDERGROUND TELEPHONE SERVICE CONNECTIONS MAY EXIST THROUGHOUT THE PROJECT AND ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL HAVE THEM LOCATED BY OH811 OR THE UTILITY OWNER AND SHALL USE EXTREME CAUTION WHEN DIGGING TO LOCATE, EXPOSE AND PROTECT THESE SERVICES.

GEN32 POSITIVE DRAINAGE OF ALL CONSTRUCTION AREAS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH CITY CINCINNATI UTILITY EROSION CONTROL NOTES AND DETAILS (LATEST VERSION) AND AS REQUIRED BY THE HAMILTON COUNTY SOIL AND WATER CONSERVATION DISTRICT. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE PERFORMED DAILY OR AS DIRECTED BY THE CITY, TO MAINTAIN ALL PAVED AREAS AFFECTED BY THE CONSTRUCTION.

GEN33 THE PROJECT AREA IS WITHIN THE RANGE OF THE STATE AND FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS), THE STATE AND FEDERALLY ENDANGERED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS), THE STATE ENDANGERED LITTLE BROWN BAT (MYOTIS LUCIFUGUS), AND THE STATE ENDANGERED AND FEDERALLY PROPOSED ENDANGERED TRI-COLORED BAT (PERIMYOTIS SUBFLAVUS) AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THESE SPECIES. PER U.S. FISH AND WILDLIFE SERVICE RECOMMENDATIONS, THE REMOVAL OF TREES GREATER THAN OR EQUAL TO 3-INCHES IN DIAMETER SHOULD ONLY OCCUR BETWEEN OCTOBER 1 AND MARCH 31. IF THIS FRAME CANNOT BE FOLLOWED, THE U.S. FISH AND WILDLIFE SERVICE (614-416-8993) AND OHIO DEPARTMENT OF NATURAL RESOURCES (CONTACT: EILEEN WYZA, Eileen.Wyz@dnr.ohio.gov) MUST BE CONTACTED PRIOR TO THE CUTTING FOR GUIDANCE ON NECESSARY STEPS TO DOCUMENT THE ABSENCE OR PRESENCE OF THESE SPECIES.

GEN34 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN35 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN36 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN37 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN38 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEERING DEPARTMENT. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

WATER LINE NOTES

WTR5 DEAD-END WATER LINES MUST TERMINATE WITH A FIRE HYDRANT AND WATCH VALVE FOLLOWED BY A MAIN LINE VALVE AND AN ADDITIONAL SECTION OF WATER LINE PLUGGED AND BLOCKED PER THE STANDARD DRAWINGS. AT THE DIRECTION OF THE VILLAGE OF CLEVES, RESTRAINT GASKETS SHALL BE USED IN LIEU OF BLOCKING.

WTR6 WATER LINES SHALL BE INSTALLED WITH A MINIMUM OF 3'-6" OF COVER MEASURED FROM THE FINISHED GRADE TO THE TOP OF THE WATER MAIN. ALL INSTANCES OF DEEPER INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE VILLAGE IMMEDIATELY FOR REVIEW AND APPROVAL.

WTR7 ALL PIPING 1 1/4" OR LESS IN DIAMETER BETWEEN THE WATER MAIN AND THE CONTROL VALVE OR METER PIT MUST BE TYPE K, SOFT TEMPERED COPPER TUBING CONFORMING IN ALL RESPECTS TO ASTM B88M. FITTINGS MUST BE FLAIR-TYPE COMPRESSION JOINTS CONFORMING TO AWWA C800, IN GENERAL, THERE WILL BE NO FITTINGS PERMITTED BETWEEN THE WATER MAIN CONNECTION AND THE CONTROL VALVE.

WTR8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORIZONTAL AND VERTICAL DEFLECTIONS OR BENDS IN THE WATER LINE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND WITH PERMISSION BY THE VILLAGE. DEFLECT WATER LINES TO PROVIDE A 1'-6" VERTICAL AND 10'-0" HORIZONTAL CLEARANCE FROM SANITARY SEWERS AND STORM SEWERS.

WTR9 THE WATER SERVICE TAPS SHALL CONSIST OF ALL PIPE, VALVES, FITTINGS, AND APPURTENANCES NECESSARY TO CONNECT TO THE PUBLIC WATER MAIN AND COMPLETE THE INSTALLATIONS ACCORDING TO THE STANDARDS SET FORTH IN THIS PLAN.

WTR10 FIRE HYDRANTS SHALL BE KENNEDY OR MUELLER. FIRE HYDRANTS ARE TO BE PAINTED WITH TWO (2) COATS OF FEDERAL SAFETY YELLOW, SHERWIN WILLIAMS B54Y37 PER CODE 1507.08 (A)(1).

WTR11 ALL MECHANICAL FASTENERS, BOLTS, ALL TREADED RODS, ETC. ARE TO RECEIVE ONE (1) COAT OF RUBBERIZED UNDERCOATING.

WTR12 THE COST OF ANY DE-WATERING OPERATIONS REQUIRED FOR THE CONSTRUCTION OF THE WATER LINE MUST BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

WTR13 ALL FITTINGS MUST BE ADEQUATELY RESTRAINED WITH CONCRETE BLOCKING PER THE STANDARD DRAWINGS. ALL FITTINGS TO BE BACKED MUST BE THOROUGHLY WRAPPED IN PLASTIC SHEETING PRIOR TO PLACING CONCRETE. ALL CONCRETE BLOCKING MUST BE READY-MIX AND SUPPLIED BY APPROVED READY-MIX COMPANY. TRENCH MUST BE FREE OF WATER AND DEBRIS.

WTR14 ALL PIPE AND APPURTENANCES INSTALLED ON A DEPRESSURIZED WATER MAIN ARE TO BE WIPE CLEAN AND ALL INTERIOR SURFACES SATURATED WITH A MINIMUM 1% CHLORINE SOLUTION.

WTR15 ALL DUCTILE IRON PIPE AND FITTINGS TO BE POLY WRAPPED AND TAPE AS PER DUCTILE IRON PIPE RESEARCH ASSOCIATION RECOMMENDATIONS.

WTR16 DUCTILE IRON PIPE IN CASING SHALL BE CLASS 52, POLYWRAPPED AND ALL PUSH-ON JOINTS SHALL BE EQUIPPED WITH RESTRAINT GASKETS (FIELD-LOK OR APPROVED EQUAL) AND STAINLESS STEEL CASING SPACERS ARE REQUIRED.

WTR17 ALL VALVES ARE OPEN LEFT AND ALL MAIN LINE VALVES ARE TO BE PLACED ON A MINIMUM OF ONE 6" SOLID CONCRETE BLOCK. ALL VALVES TO HAVE SAND UP TO OPERATING NUT OF VALVE. CURB VALVES ARE TO BE PLACED ON A SOLID STANDARD SIZE RED OR MASONRY BRICK.

WTR18 ALL FIRE HYDRANTS TO HAVE A MINIMUM OF 1/2 CUBIC YARD OF #57 WASHED RIVER GRAVEL 6" ABOVE DRAIN HOLE OR EQUIVALENT SIZE BANK RUN GRAVEL. GEOTEXTILE DRAINAGE FABRIC SHALL BE PLACED BEHIND AND OVER STONE PRIOR TO BACKFILL. ALL HYDRANTS TO BE TURNED WITH 4-1/2" NOZZLE FACING STREET AND MEETING FIRE DEPARTMENT SPECIFICATIONS.

WTR19 ALL NEW MAIN LINE AND HYDRANT WATCH VALVES ARE TO BE DIRECTLY ANCHORED TO THE TEE AND BE ANCHOR TYPE FITTINGS.

WTR20 3/4" TROUGH 2" WATER TAPS MUST BE SADDLE TAP ONLY. NO DIRECT TAPS, IN ACCORDANCE WITH SPECIFICATIONS. 3" AND LARGER WATER TAPS MUST BE DONE WITH A FORD FTSS TAPPING SLEEVE.

WTR21 ALL GATE VALVES MUST BE DUCTILE IRON RESILIENT WEDGE 200 PSI WHICH MEETS OR EXCEEDS THE REQUIREMENTS OF ANSI/AWWA C509. CLOW VALVE COMPANY, U.S. PIPE OR APPROVED EQUAL.

WTR22 VALVE BOXES ARE TO BE SLIDE TYPE ONLY - USA PRODUCTS ONLY.

WTR23 FOR 3/4" AND 1" WATER SERVICE TAPS, THE WATER MAIN CONNECTION MUST BE MADE USING A BULLCOP CORP STOP. VALVES MUST BE IN ACCORDANCE WITH SPECIFICATIONS (QUARTER TURN ONLY). FOR A WATER SERVICE TAP > 1", A BALL VALVE IS REQUIRED.

WTR24 ALL WATER LINES MUST BE TESTED (AWWA 600) AND STERILIZED (AWWA C651) BY THE CONTRACTOR IN ACCORDANCE WITH THE CINCINNATI WATER SPECIFICATIONS. TESTING MUST BE DONE AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF THE ENGINEER INSPECTOR.

WTR25 THE PRESSURE REQUIRED TO PERFORM HYDROSTATIC TESTING ON WATER LINES MUST BE 200 PSI FOR DOMESTIC LINES AND 200 PSI FOR FIRE SUPPRESSION LINES (PER NFPA 13) FOR 2 HOURS.

WTR26 (NOT USED) THE VILLAGE OF CLEVES OR AN ENGINEER REPRESENTATIVE IS RESPONSIBLE FOR INSPECTION OF ALL APPURTENANCES. MIAMI TOWNSHIP FIRE DEPARTMENT IS RESPONSIBLE FOR THE INSPECTION OF: THE FIRE LINE, THRUST BLOCKS FOR THE FIRE LINE, FIRE DEPARTMENT CONNECTION, AND VALVE MONITORING. PRIOR TO BURYING THE WATER SERVICE, THE APPROPRIATE DEPARTMENT REPRESENTATIVE SHALL INSPECT EACH PORTION OF THE SERVICE. FAILURE TO HAVE THE INSPECTION PERFORMED BY THE APPROPRIATE DEPARTMENT WILL RESULT IN HAVING TO UNCOVER THE SERVICE AT THE CONTRACTOR'S EXPENSE.

WTR27 THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO ENSURE SAFETY OF THE PUBLIC ON AND SURROUNDING THE SITE DURING CONSTRUCTION.

WTR28 THE CONTRACTOR SHALL CAREFULLY LAYOUT THE WATERLINE AND ALL RELATED FACILITIES TO ENSURE THAT THEY ARE LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR ACQUIRED EASEMENTS AS INDICATED.

WTR29 THE CONTRACTOR IS RESPONSIBLE FOR RESTORING THE SITE (YARDS, DITCHES, DRIVEWAYS, ETC.) TO ITS ORIGINAL OR BETTER CONDITION UPON COMPLETION OF THE WATERLINE INSTALLATION.

WTR30 ALL MAIL BOXES, TRAFFIC CONTROL SIGNS AND ADVERTISING SIGNS ENCOUNTERED DURING CONSTRUCTION SHALL BE REPLACED IMMEDIATELY AFTER THE WATER MAIN HAS BEEN INSTALLED AND BACKFILLED.

GENERAL NOTES TO CONTRACTOR

NOTE 1: CONTRACTOR TO CONTACT UTILITY COMPANY PRIOR TO CONSTRUCTION TO COORDINATE TEMPORARY BRACING OF UTILITY POLES AS NECESSARY.

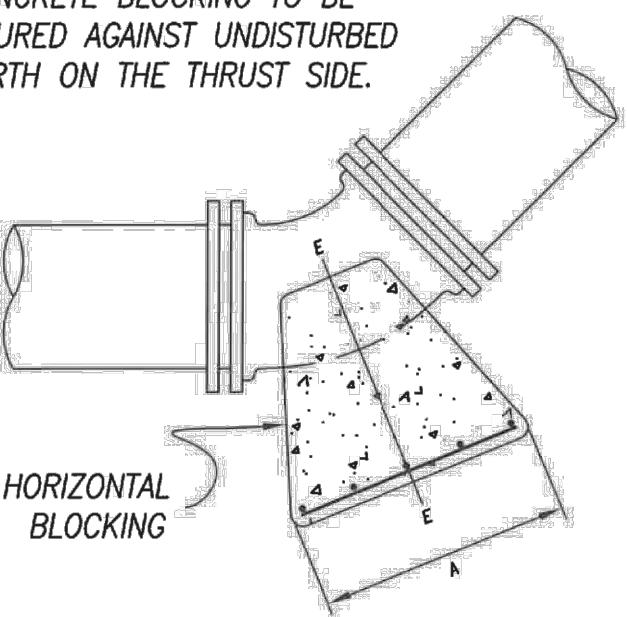
NOTE 2: CONTRACTOR TO IDENTIFY ALL STUBS THAT NEED TO BE RE-TESTED AND DISINFECTED BEFORE VALVE IS OPEN.

NOTE 3: CONTRACTOR SHALL PROVIDE COMPAKTED GRANULAR BACKFILL BETWEEN ALL UTILITY CROSSINGS.

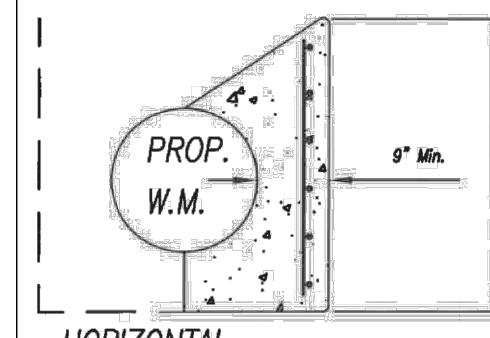
NOTE 4: CONTRACTOR SHALL PERFORM ALL WORK D

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.

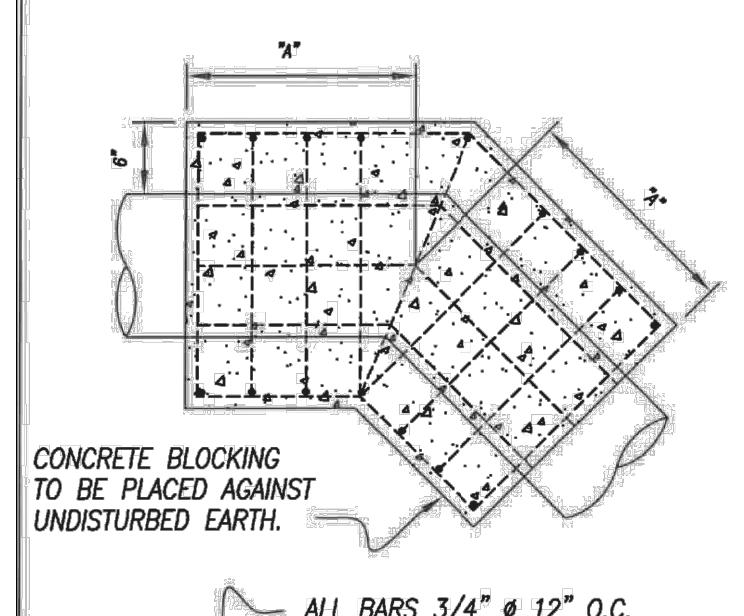


CONCRETE BLOCKING FOR FITTINGS

HORIZONTAL BENDS

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

NOTE:
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" Ø 12" O.C.
EXCEPT LONG BARS ON
THRUST SIDE 6" O.C.

CONCRETE BLOCKING TO BE PLACED AGAINST
UNDISTURBED EARTH.



SPECIAL REQUIREMENTS
1. 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.

2. WHERE THE DISTANCE BETWEEN CONCRETE BLOCKING
FOR A TOP VERTICAL BEND AND BLOCKING FOR A BOTTOM
VERTICAL BENDS IS LESS THAN 3 FEET APART, STANDARD
DRAWING NO. 101-4 SHALL APPLY.

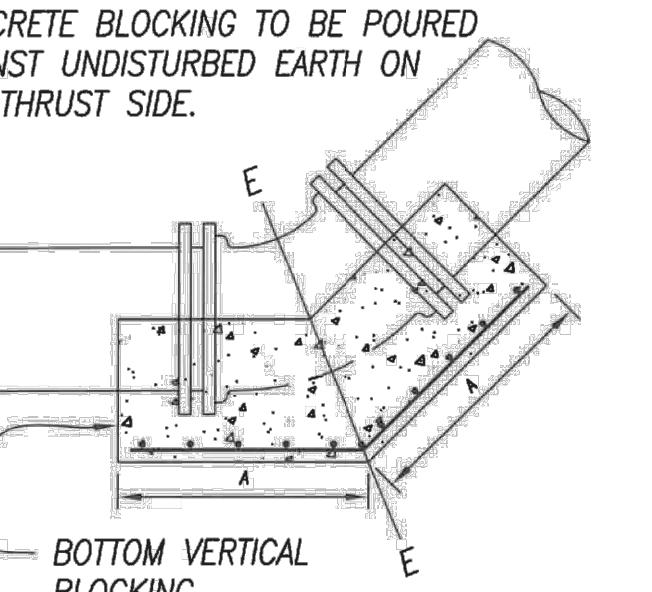
3. THIS STANDARD DRAWING DOES NOT APPLY TO CREEK
CROSSING, SEE STANDARD DRAWING NO. 105-1.

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.

SIZE	75 P.S.I. & UNDER				75 P.S.I. TO 125 P.S.I.				125 P.S.I. TO 200 P.S.I.				
	BEND ANGLE	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL
4	11 1/4	1'0"	1'0"	0.1		14	1'0"	1'0"	0.1	14			
	22 1/2	1'0"	0.1			14	1'0"	1'0"	0.1	14			
45	1'0"	1'0"	0.1			14	1'0"	1'0"	0.1	14			
	11 1/4	1'0"	1'0"	0.1		14	1'0"	1'0"	0.1	14			
6	22 1/2	1'0"	0.1			14	1'0"	1'0"	0.1	14			
	45	1'0"	1'0"	0.1		14	1'0"	1'0"	0.1	14			
	11 1/4	1'0"	1'0"	0.1		14	1'0"	1'0"	0.1	14			
8	22 1/2	1'0"	0.1			17	1'0"	1'0"	0.1	17			
	45	2'0"	1'0"	0.2		20	2'0"	2'0"	0.2	24			
	11 1/4	1'0"	1'0"	0.1		14	1'0"	1'0"	0.1	14			
10	22 1/2	1'0"	0.1			18	2'0"	2'0"	0.2	24			
	45	2'0"	1'0"	0.2		38	3'0"	2'0"	0.4	40			
	11 1/4	1'0"	1'0"	0.1		20	1'0"	2'0"	0.2	18			
12	22 1/2	1'0"	0.2			24	2'0"	2'0"	0.3	30			
	45	2'0"	2'0"	0.3		45	3'0"	3'0"	0.6	63			
	11 1/4	2'0"	2'0"	0.2		16	2'0"	2'0"	0.2	30			
16	22 1/2	2'0"	0.3			38	3'0"	3'0"	0.6	63			
	45	3'0"	3'0"	0.6		68	4'0"	5'0"	1.2	120			
	11 1/4	2'0"	2'0"	0.3		21	2'0"	2'0"	0.4	30			
20	22 1/2	2'0"	0.8			45	3'0"	3'0"	1.2	98			
	45	4'0"	3'0"	1.0		74	5'0"	4'0"	1.4	108			
	11 1/4	4'0"	3'0"	1.0		50	4'0"	5'0"	2.2	180			

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.

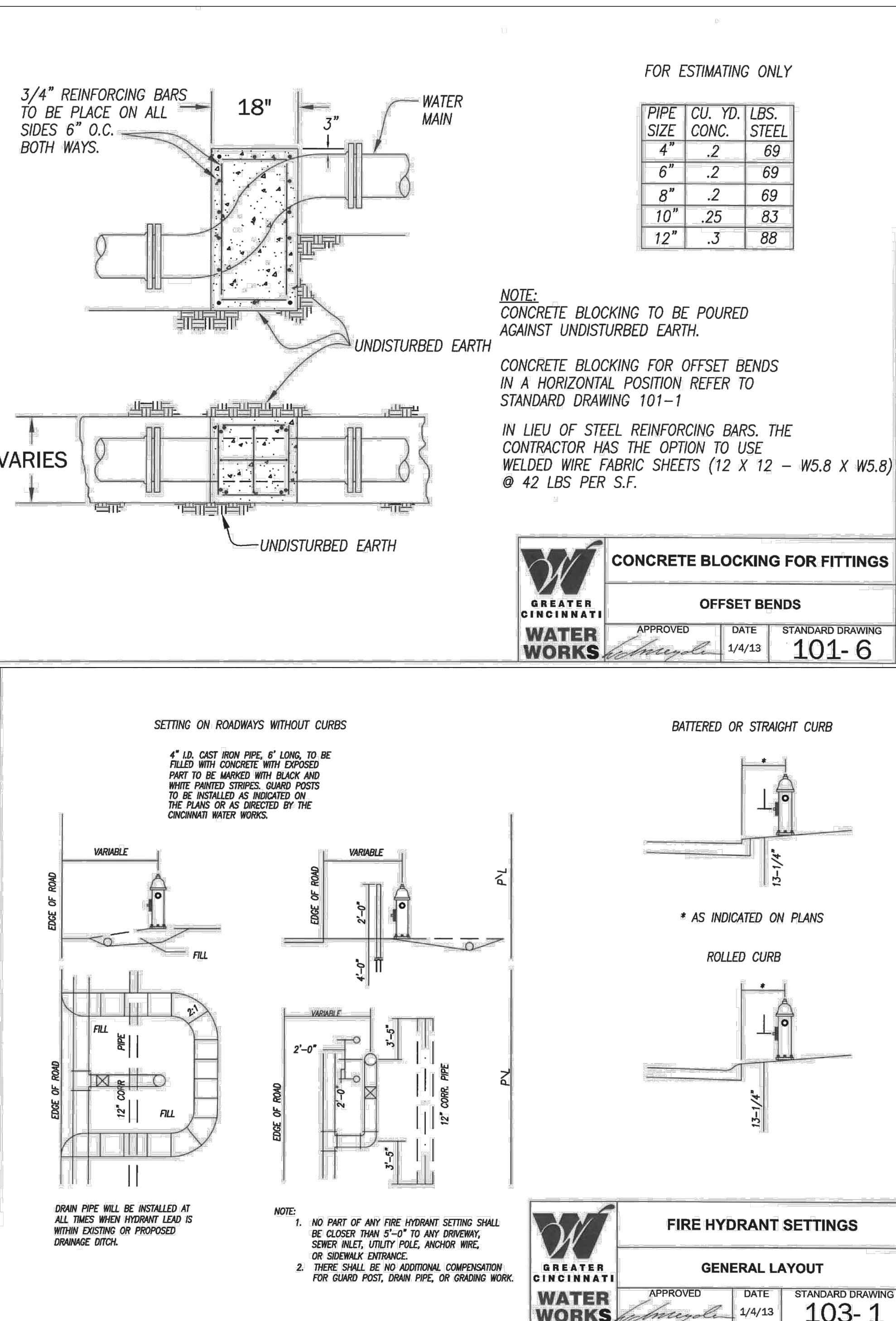
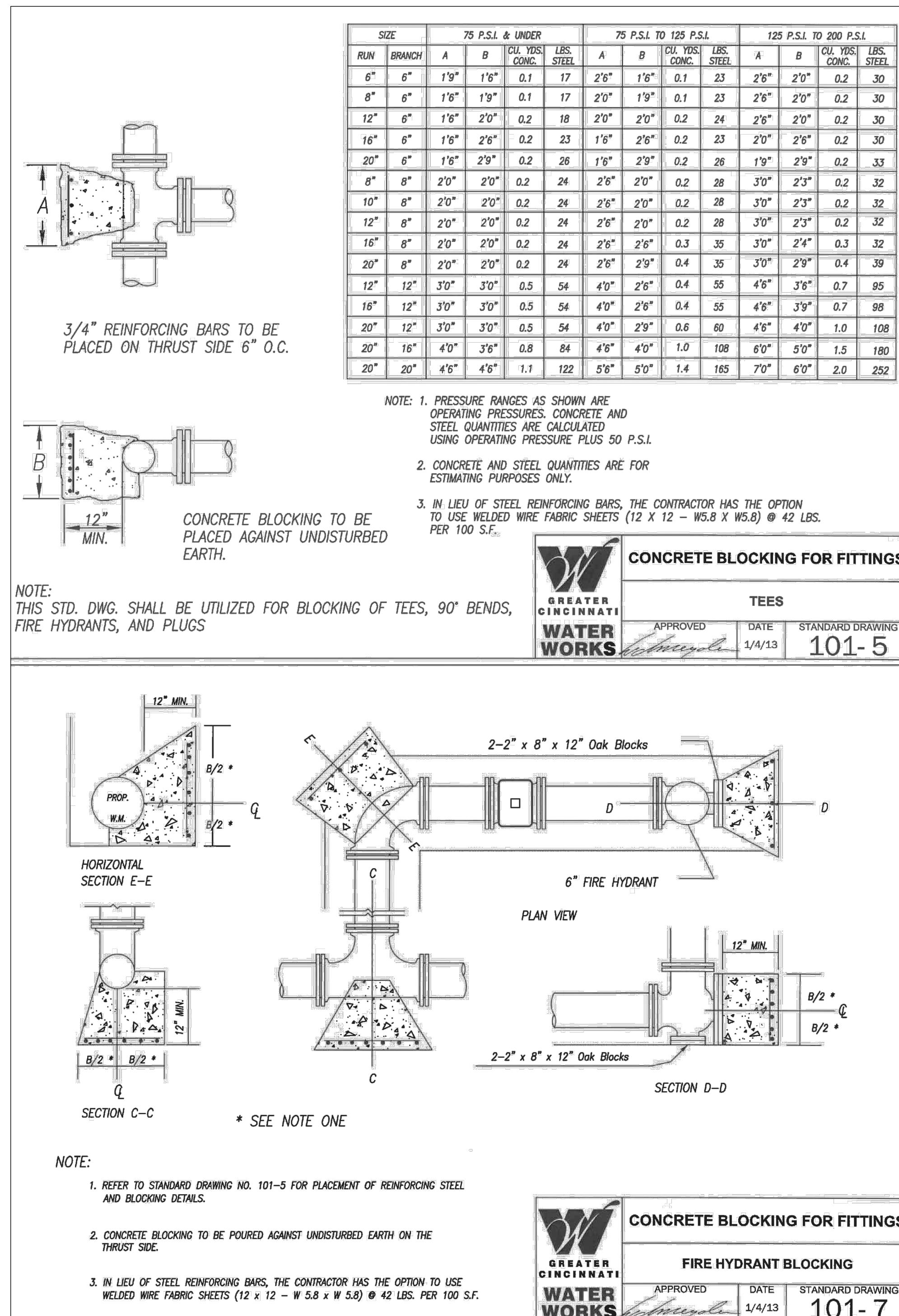


CONCRETE BLOCKING FOR FITTINGS

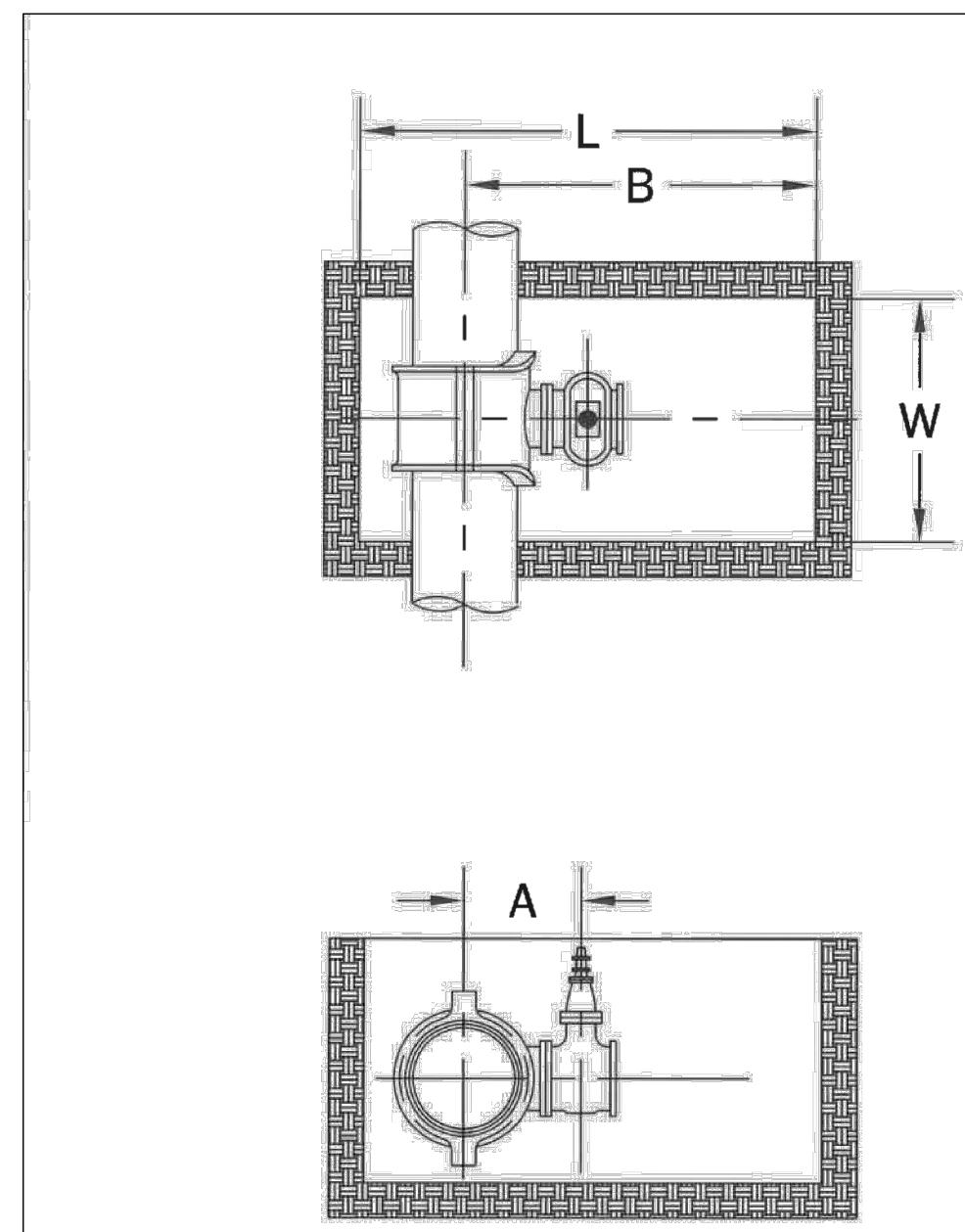
HORIZONTAL BENDS

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

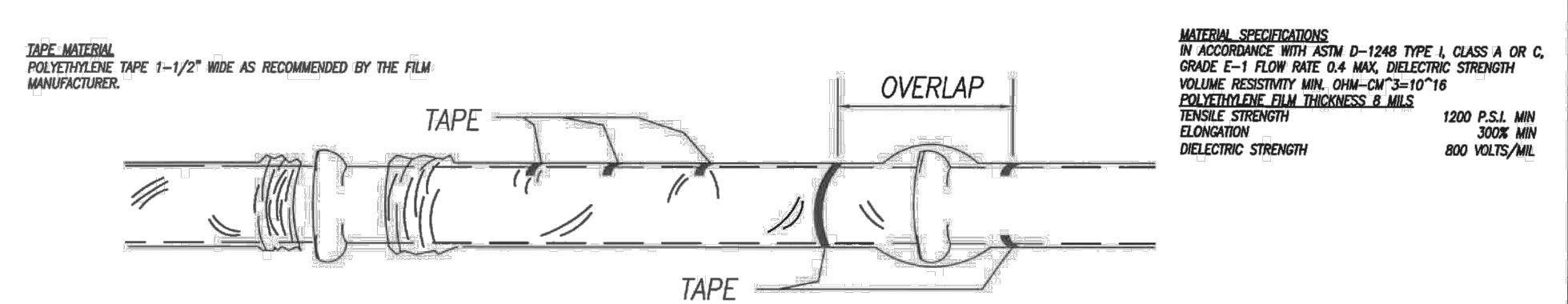
SIZE	75 P.S.I. & UNDER				75 P.S.I. TO 125 P.S.I.				125 P.S.I. TO 200 P.S.I.				
	BEND ANGLE	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL	A	B	CU. YDS. CONC.	LBS. STEEL
4	11 1/4	1'0"	0'8"	0.1		14	1'0"	0'8"	0.1	15	1'0"	0'8"	0.1
	22 1/2	1'0"	0'8"	0.1		14	1'0"	0'8"	0.1	15	1'0"	0'8"	0.1
45	1'0"	0'8"	0.1			14	1'0"	0'8"	0.1	15	1'0"	0'8"	0.1
	11 1/4	1'0"	0'8"	0.1		14	1'0"	0'8"	0.1	16	1'0"	0'8"	0.1
6	22 1/2	1'0"	0'8"	0.1		16	1'0"	0'8"	0.1	16	1'0"	0'8"	0.1
	45	1'0"	0'8"	0.1		16	1'0"	0'8"	0.1	16	1'0"	0'8"	0.1
	11 1/4	1'0"	0'8"	0.1		20	1'0"	0'8"	0.1	20	1'0"	0'8"	0.1
8	22 1/2	1'0"	0'8"	0.1		20	1'0"	0'8"	0.2	20	1'0"	0'8"	0.2
	45	1'0"	0'8"	0.1		20	1'0"	0'8"	0.2	20	1'0"	0'8"	0.2
	11 1/4	1'0"	0'8"	0.2		21	1'0"	0'8"	0.2	21	1'0"	0'8"	0.2
10	22 1/2	1'0"	0'8"	0.2		21	1'0"	0'8"	0.2	21	1'0"	0'8"	0.2
	45	1'0"	0'8"	0.2		30	2'0"	2'0"	0.3	39	2'0"	2'0"	0.3
	11 1/4	1'0"	0'8"	0.2		25	1'0"	0'8"	0.2	22	1'0"	0'8"	0.2
12	22 1/2	1'0"	0'8"	0.2		25	1'0"	0'8"	0.2	25	1'0"	0'8"	0.3
	45	1'0"	0'8"	0.3		46	3'0"	0'8"	0.5	58	3'0"	0'8"	0.5
	11 1/4	1'0"	0'8"	0.3		27	1'0"	0'8"	0.3	27	1'0"	0'8"	0.3
16	22 1/2	1'0"	0'8"	0.3		38	2'0"	0'8"	0.5	49	2'0"	0'8"	0.5
	45	2'0"	0'8"	0.5		71	4'0"	0'8"	0.9	94	4'0"	0'8"	0.9
	11 1/4	1'0"	0'8"	0.3		31	1'0"	0'8"	0.5	44	1'0"	0'8"	0.5
20	22 1/2	1'0"	0'8"	0.5		58	3'0"	0'8"	0.9</td				



PROJECT NO.	35192
DISCIPLINE	CIVIL
SHEET NAME	DETAILS - 2
DETAILS	5 13



SIZE	A	B	W	L
20 X 4	21- $\frac{1}{2}$	7"-5"	4"-11"	10"-0"
20 X 6	22- $\frac{1}{2}$	7"-8"	5"-1"	10"-3"
20 X 8	24- $\frac{1}{2}$	7"-10"	5"-3"	10"-5"
20 X 10	24- $\frac{1}{2}$	7"-10"	5"-5"	10"-5"
20 X 12	24- $\frac{1}{2}$	7"-11"	5"-7"	10"-6"
24 X 4	15	6"-10"	4"-11"	10"-4"
24 X 6	25- $\frac{1}{2}$	7"-10"	5"-1"	10"-7"
24 X 8	26- $\frac{1}{2}$	8"-0"	5"-3"	10"-9"
24 X 10	26- $\frac{1}{2}$	8"-1"	5"-5"	10"-10"
24 X 12	26- $\frac{1}{2}$	8"-1"	5"-7"	10"-10"
30 X 4	27- $\frac{1}{2}$	7"-11"	4"-11"	10"-11"
30 X 6	28- $\frac{1}{2}$	8"-1"	5"-1"	11"-1"
30 X 8	29- $\frac{1}{2}$	8"-3"	5"-3"	11"-3"
30 X 10	30- $\frac{1}{2}$	8"-4"	5"-5"	11"-4"
30 X 12	30- $\frac{1}{2}$	8"-4"	5"-7"	11"-4"
36 X 4	30- $\frac{1}{2}$	8"-2"	4"-11"	11"-6"
36 X 6	31- $\frac{1}{2}$	8"-5"	5"-1"	11"-9"
36 X 8	33- $\frac{1}{2}$	8"-6"	5"-3"	11"-10"
36 X 10	33- $\frac{1}{2}$	8"-6"	5"-5"	11"-10"
36 X 12	33- $\frac{1}{2}$	8"-7"	5"-7"	11"-11"



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 ACCORDING FASHION LENGTHWISE UNTIL IT CLEARS THE PIPE ENDS.

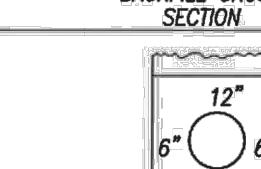
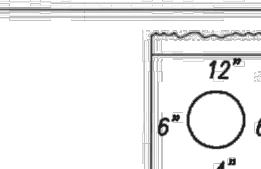
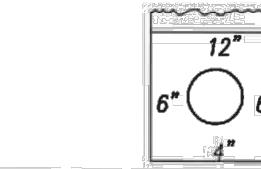
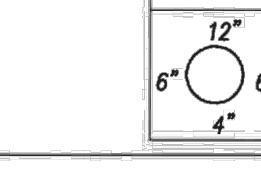
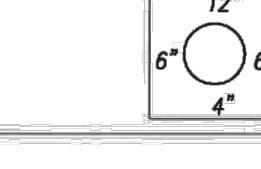
LOWER THE PIPE INTO THE TRENCH AND MAKE THE PIPE JOINT WITH THE PRECEDING SECTION OF PIPE. A SHALLOW BELL HOLE MUST BE MADE AT THE JOINTS TO FACILITATE INSTALLATION OF THE POLYETHYLENE TUBE.

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.

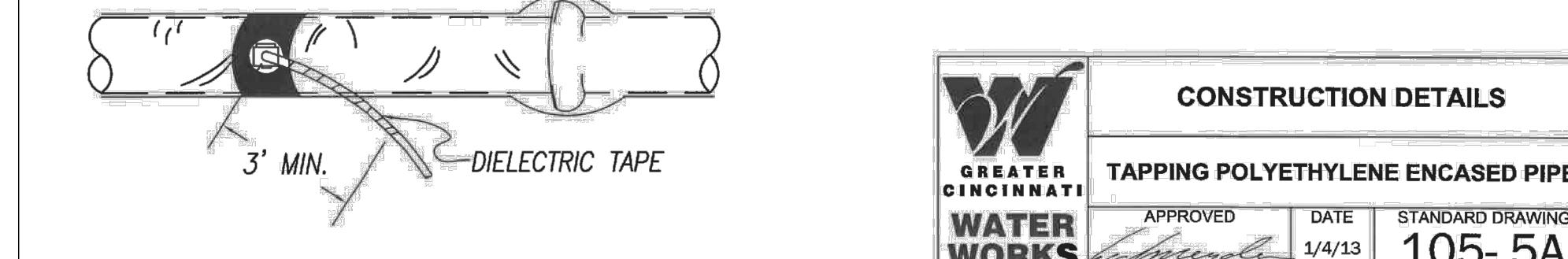
JUNCTIONS BETWEEN WRAPPED AND UNWRAPPED PIPE: WHERE POLYETHYLENE WRAPPED PIPE JOINS A PIPE WHICH IS NOT WRAPPED, EXTEND THE POLYETHYLENE TUBE TO COVER THE UNWRAPPED PIPE A DISTANCE OF AT LEAST TWO FEET. SECURE THE END WITH CIRCUMFERENTIAL TURNS OF TAPE.

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

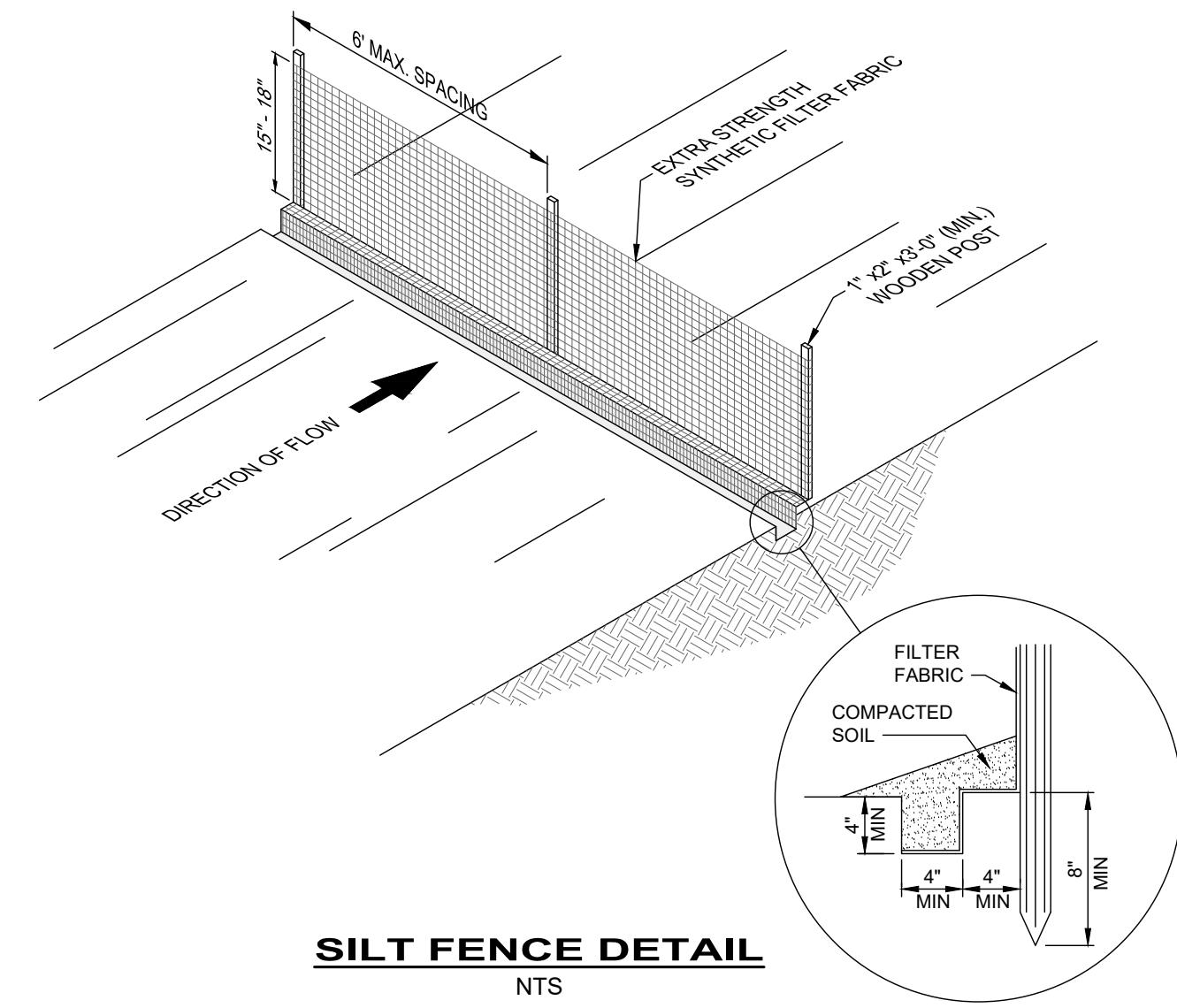
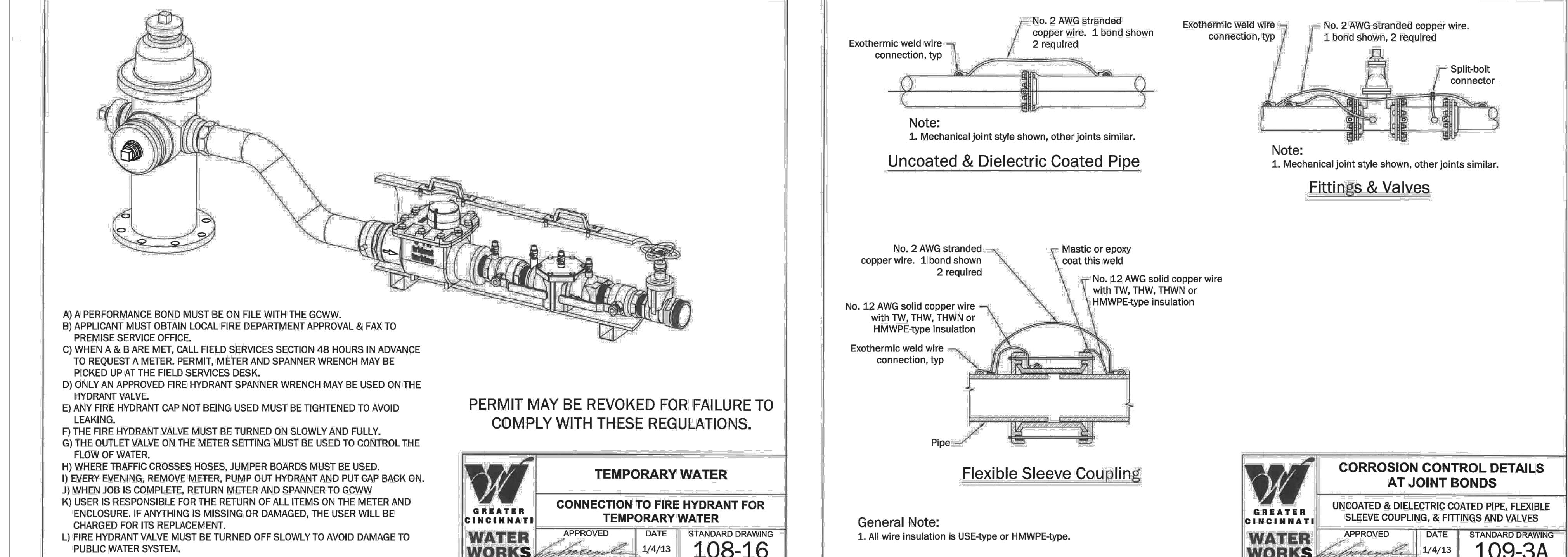
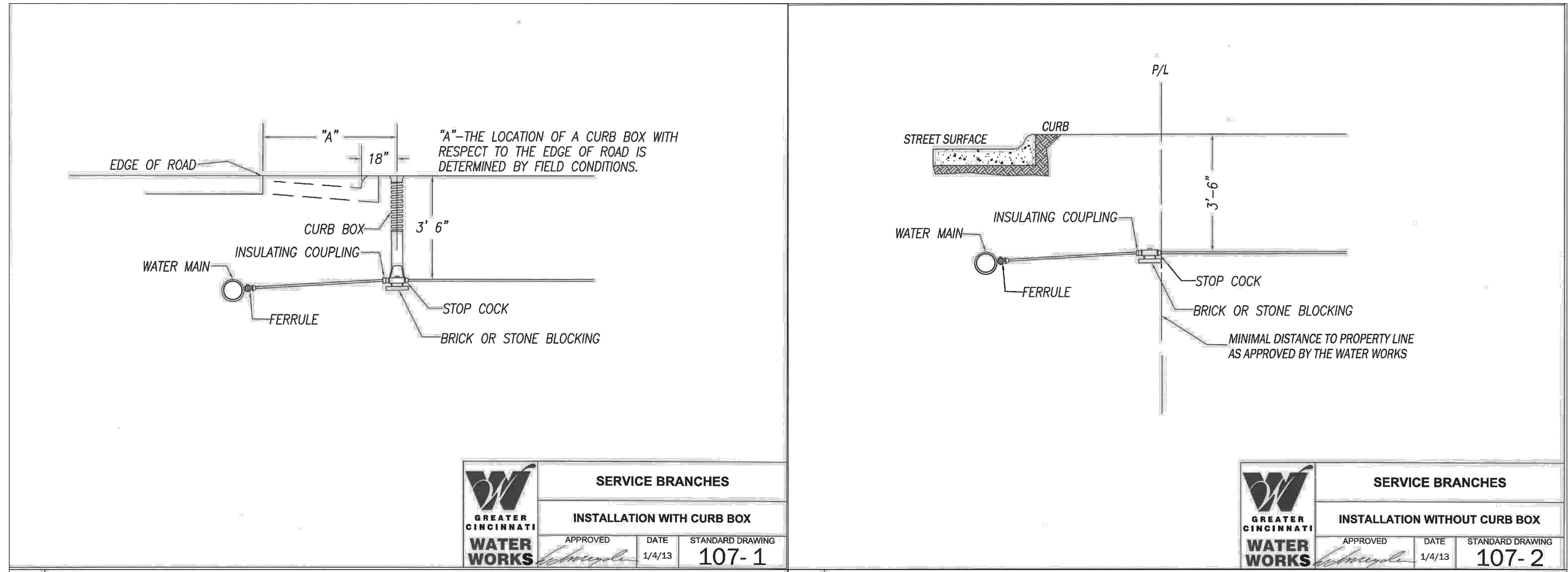
TUBE SIZE REQUIRED				
PIPE DIAMETER	4"	6"	8"	10"
MIN. FLAT TUBE WIDTH (INCHES)	14	16	20	24
27	34	41		

CONSTRUCTION DETAILS				
POLYETHYLENE ENCASEMENT - GRAY AND DUCTILE IRON PIPE				
APPROVED	DATE	STANDARD DRAWING	105-5	

BACKFILL				
TYPICAL BACKFILL REQUIREMENT				
APPROVED	DATE	STANDARD DRAWING	106-1	

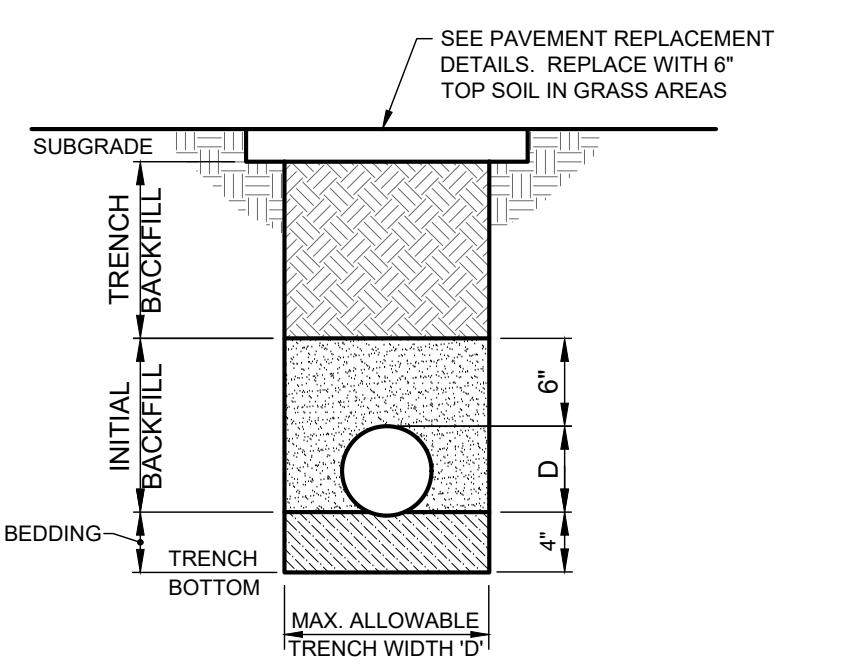


ADDYSTON-CLEVES CONNECTION	ISSUED FOR:	REVIEW	NO:	REVISION
PROJECT NO.:	12/05/2013	ISSUE DATE:		
DISCIPLINE:	QDB	SCALE:		
DESIGNED BY:	QDB	DRAWN BY:	QDB	CHECKED BY:
WATERLINE CONSTRUCTION DETAILS				
VILLAGE OF CLEVES HAMILTON COUNTY, OHIO				
PROJECT NO. 35192 DISCIPLINE CIVIL SHEET NAME DETAILS - 3 SHEET OF 13				

**SILT FENCE DETAIL****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 48 INCHES AND A MINIMUM 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****NOTES:**

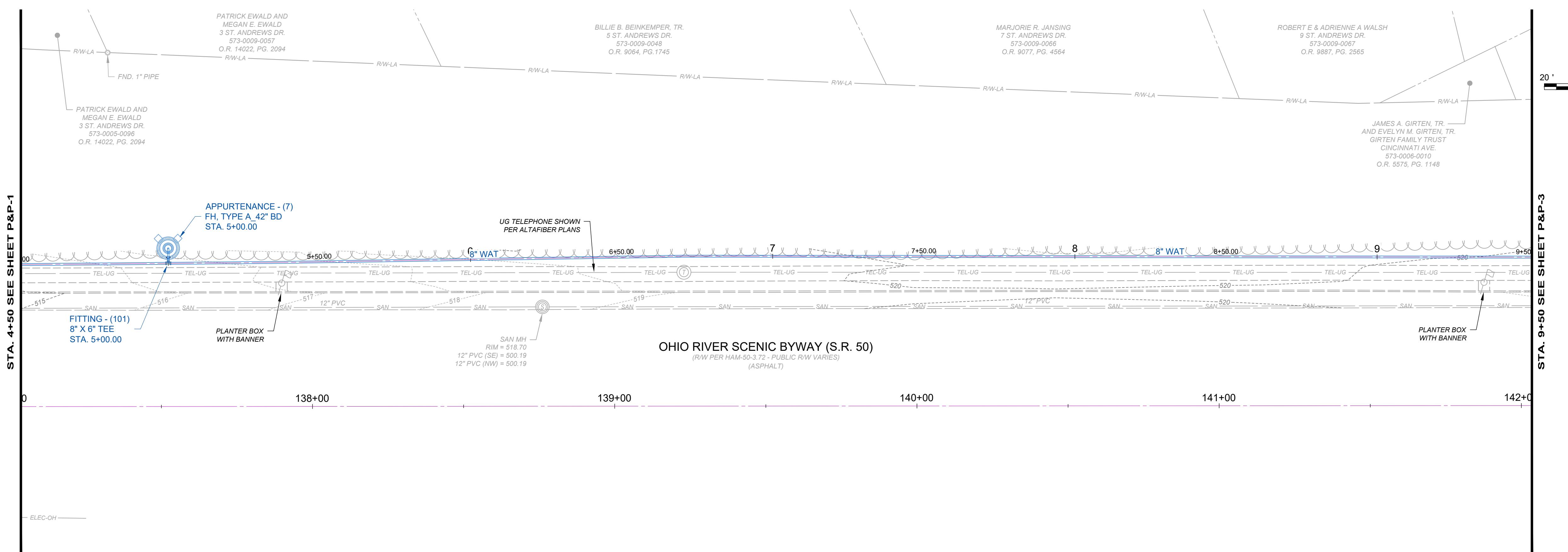
1. SUITABLE BEDDING AND INITIAL BACKFILL MATERIAL SHALL CONSIST OF NATURALLY OCCURRING SAND OR CLAY FREE FROM TRASH, ROOTS, DEBRIS, EXCESSIVE MOISTURE AND OBJECTS LARGER THAN 3/4".
2. PIPE TRENCH WALL SHALL BE VERTICAL TO THE TOP OF THE INITIAL BACKFILL.
3. PROVIDE SELECT FILL No. 8 OR No. 57 STONE FOR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

ADDYSTON-CLEVES CONNECTION PROJECT	ISSUED FOR:	REVIEW:	NO:	REVISION:	DATE:
VILLAGE OF CLEVES HAMILTON COUNTY, OHIO	ISSUE DATE:	12/05/2015	SCALE:	QDB	DESIGNED BY:
WATERLINE CONSTRUCTION DETAILS	DRAWN BY:	QDB	CHECKED BY:	DEB	checked by:
PROJECT NO. 35192					
DISCIPLINE CIVIL					
SHEET NAME DETAILS - 4					
SHEET 7 OF 13					

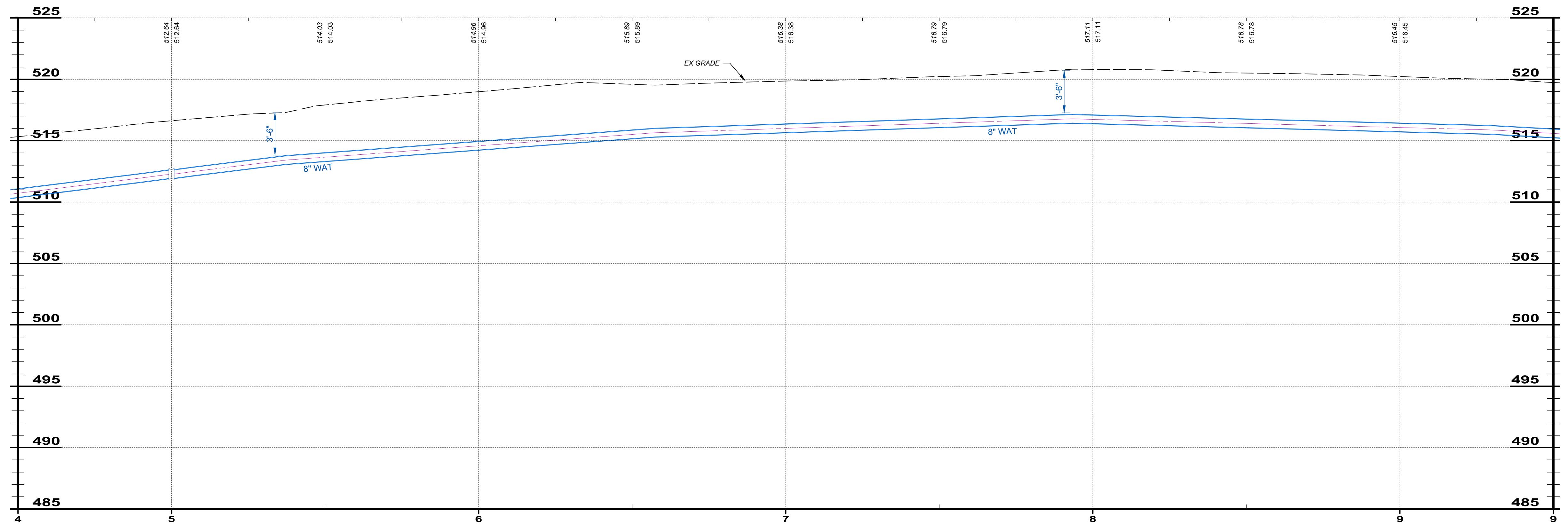
BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: 859/525-0544
WWW.VERDANTAS.COM



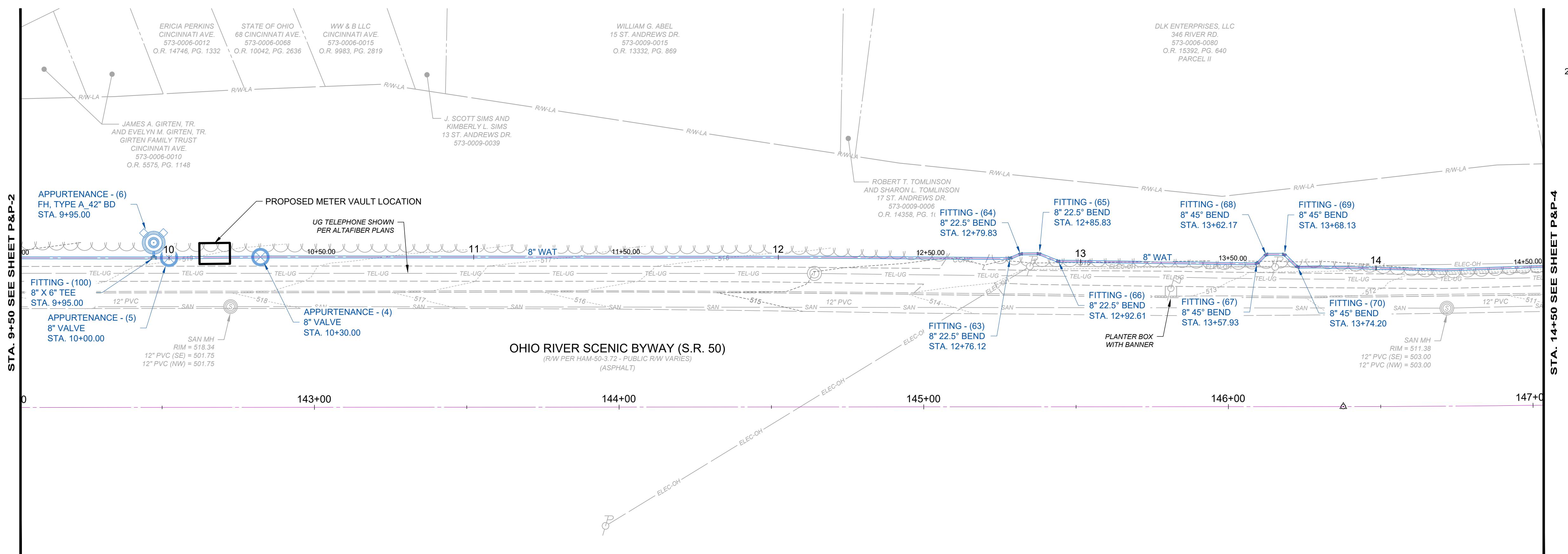
PLAN - 2



PROFILE - 2

ADDYSTON-CLEVES CONNECTION
PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

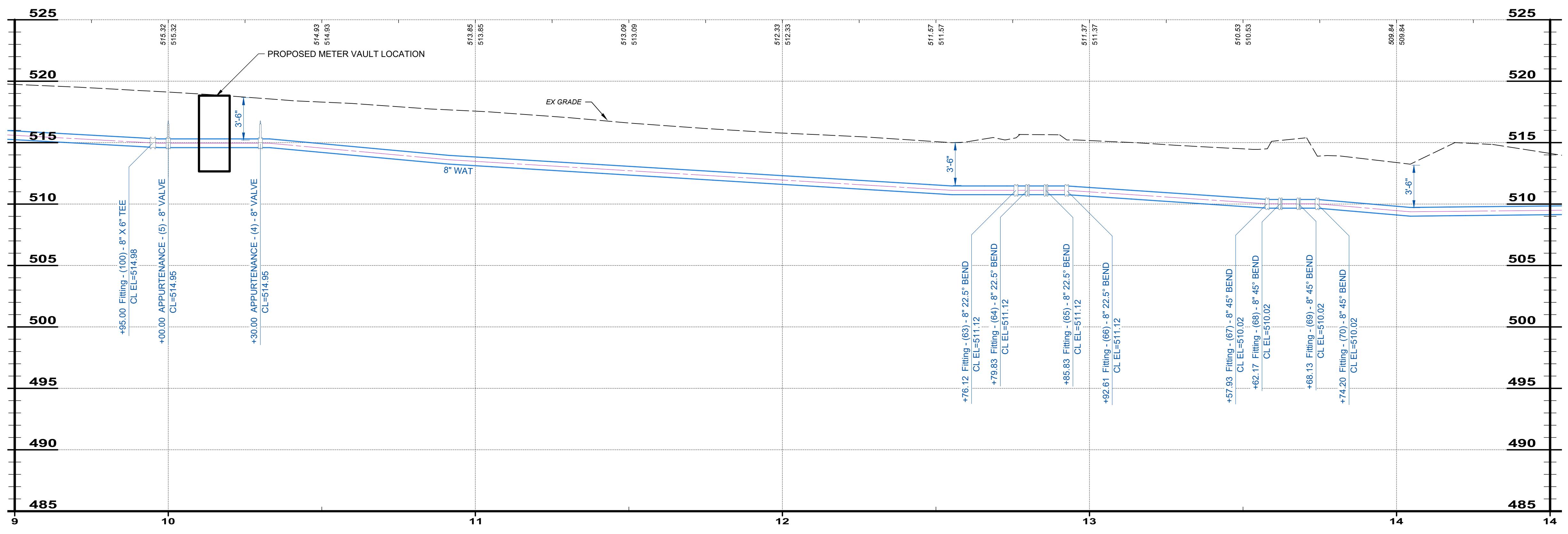
PROJECT NO.
35192
DISCIPLINE
CIVIL
SHEET NAME
P & P - 2
SHEET OF
9 **13**



BID SET

Verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL. (859) 525-0544
WWW.VERDANTAS.COM

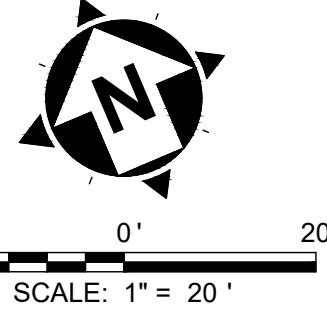


PROFILE - 3

**ADDYSTON-CLEVES CONNECTION
PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO**

WATERPLAN AND PROFILE - 3

PROJECT NO.	35192
DISCIPLINE	CIVIL
SHEET NAME	P & P - 3
SHEET	OF
10	13



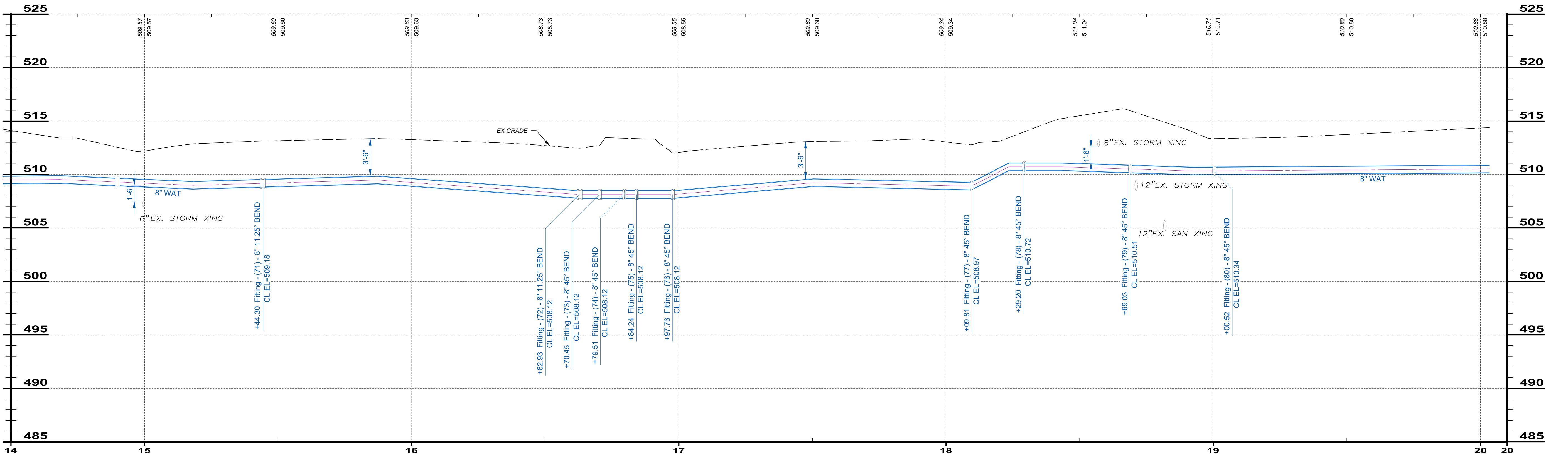
BID SET

Verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL. (659) 525-0544
WWW.VERDANTAS.COM

TEL: (859) 525-0544
WWW.VERDANTAS.COM

PLAN - 4



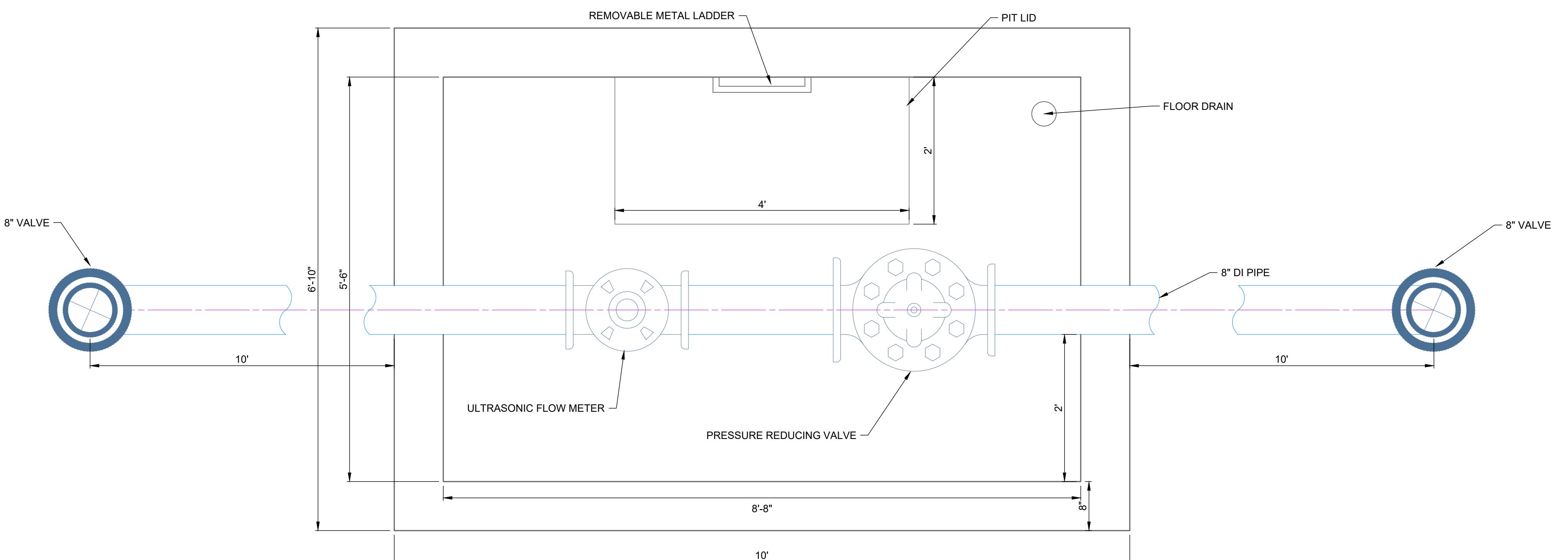
PROFILE - 4

ADDYSTON-CLEVES CONNECTION PROJECT		PROJECT NO.
VILLAGE OF CLEVES HAMILTON COUNTY, OHIO		35192
		DISCIPLINE
		CIVIL
		SHEET NAME
		P & P - 4
SHEET	OF	
11	13	
ISSUED FOR:	REVIEW	DATE
ISSUE DATE:	12/05/2025	
SCALE:		
DESIGNED BY:	QDB	
DRAWN BY:	QDB	
CHECKED BY:	DEB	
NO	REVISION	

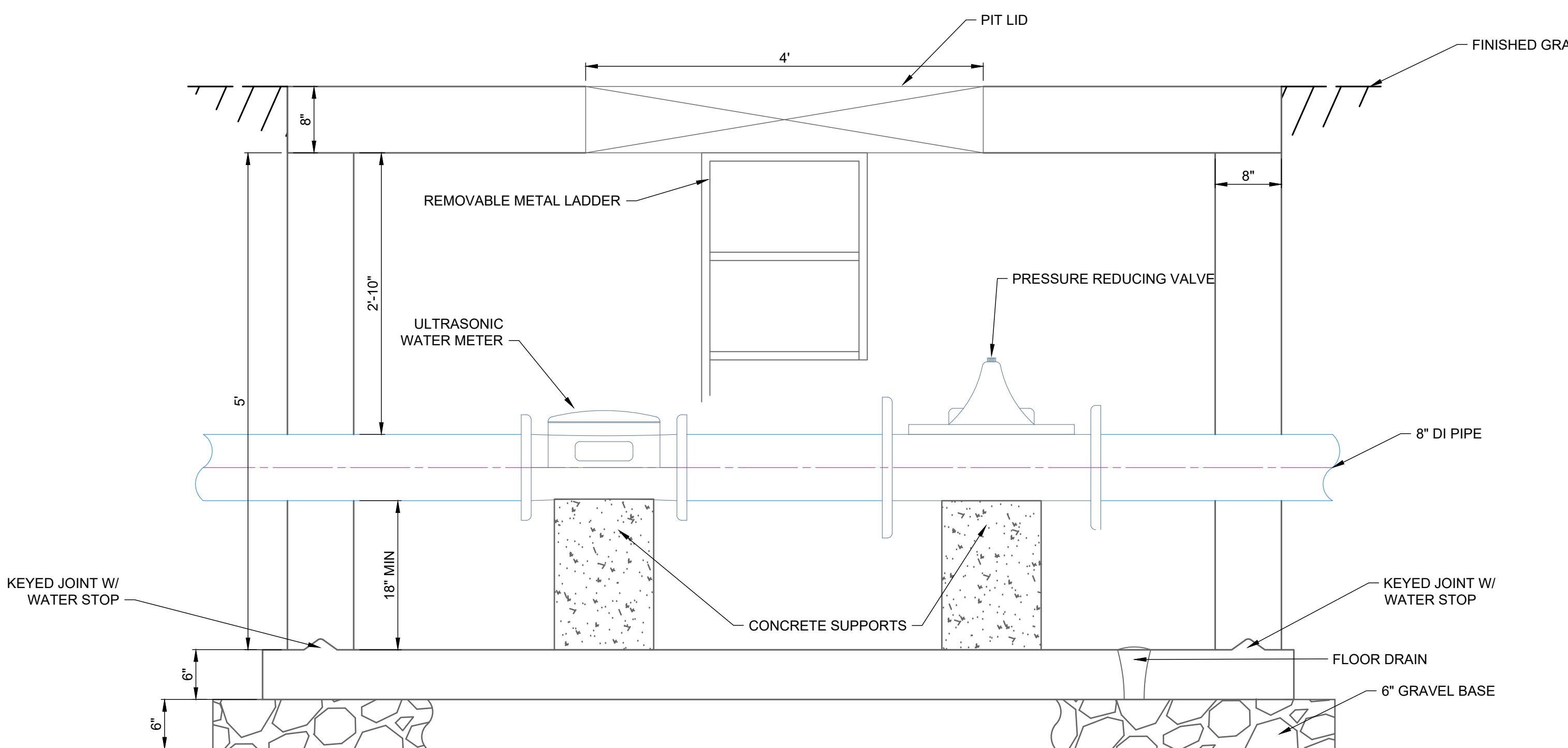
BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
TEL: 859/525-0544
WWW.VERDANTAS.COM



PLAN - 2



KEY NOTES:

1. METER PIT SHALL BE BUILT TO THE CONSTRUCTION SPECIFICATIONS OF THE GREATER CINCINNATI WATER WORKS (GCWW) SECTION 108.
2. THE PIT FLOOR SHALL BE 6" CONCRETE WITH 42 LB. ROAD MESH INSTALLED. FLOOR SHOULD BE SLOPED TOWARD THE DRAIN.
3. THE PIT WALLS SHALL BE 8" CONCRETE WITH $\frac{3}{8}$ " DIAMETER STEEL REINFORCING RODS
4. EXTERIOR SIDE OF PIT WALLS SHALL BE WATERPROOFED WITH TWO COATS OF APPROVED WATER PROOFING. VOIDS BETWEEN PIPE AND WALL SHALL BE GROUTED WITH HYDRAULIC CEMENT.
5. METER PIT SHALL HAVE A 4" DRAIN LEADING TO A GRAVEL SUMP. PIT SHALL BE SLOPED TO A FLOOR DRAIN.
6. LID SHALL BE EQUIPPED WITH STAINLESS STEEL HARDWARE AND MUST HAVE A 25 YEAR WARRANTY.
7. METAL LADDER SHALL BE AN APPROVED OSHA TYPE I INDUSTRIAL-HEAVY 250 POUND RATED LADDER THAT MEETS THE AMERICAN NATIONAL STANDARD SAFETY CODE FOR PORTABLE METAL LADDER.
8. WATER METER SHALL BE AN OCTAVE 8" ULTRASONIC WATER METER OR APPROVED EQUAL.
9. PRESSURE REDUCING VALVE EQUAL TO CLA-VAL E-90-01 OR EQUAL. VALVE SHOULD BE DESIGNED FOR AN UPSTREAM PRESSURE OF 150 PSI AND A DOWNSTREAM PRESSURE 75 PSI. VALVE SHALL BE FITTED WITH NEPTUNE RADIO READ.

ADDYSTON-CLEVES CONNECTION
PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO

METER VAULT

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

BID SET

verdantas

300 BUTTERMILK PIKE, SUITE 332
FORT MITCHELL, KENTUCKY 41017
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WWW.VERDANTAS.COM



**ADDYSTON-CLEVES CONNECTION
PROJECT
VILLAGE OF CLEVES
HAMILTON COUNTY, OHIO**

WATERPLAN AND PROFILE - 5

PROJECT NO.	35192
DISCIPLINE	CIVIL
SHEET NAME	P & P - 5
OF	13