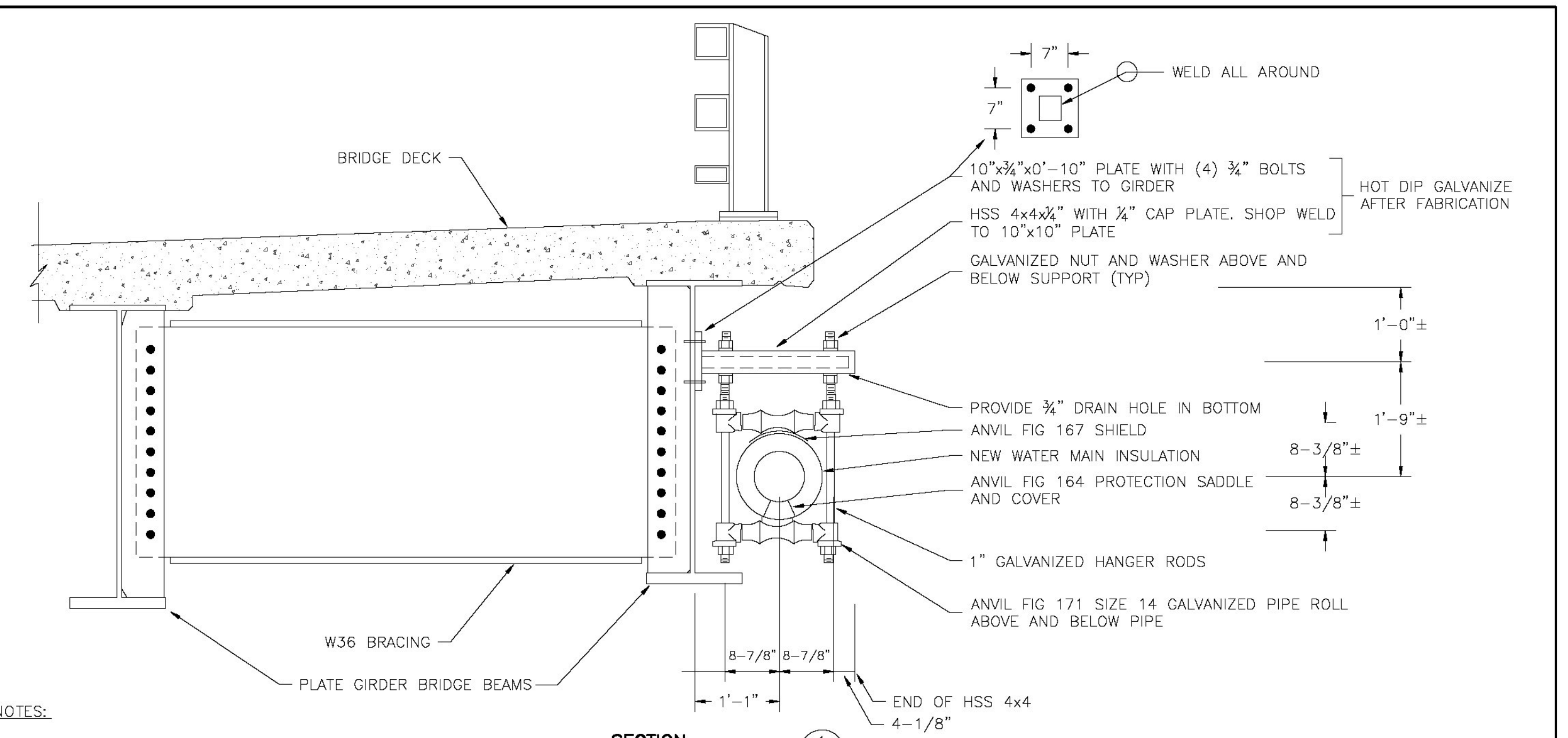
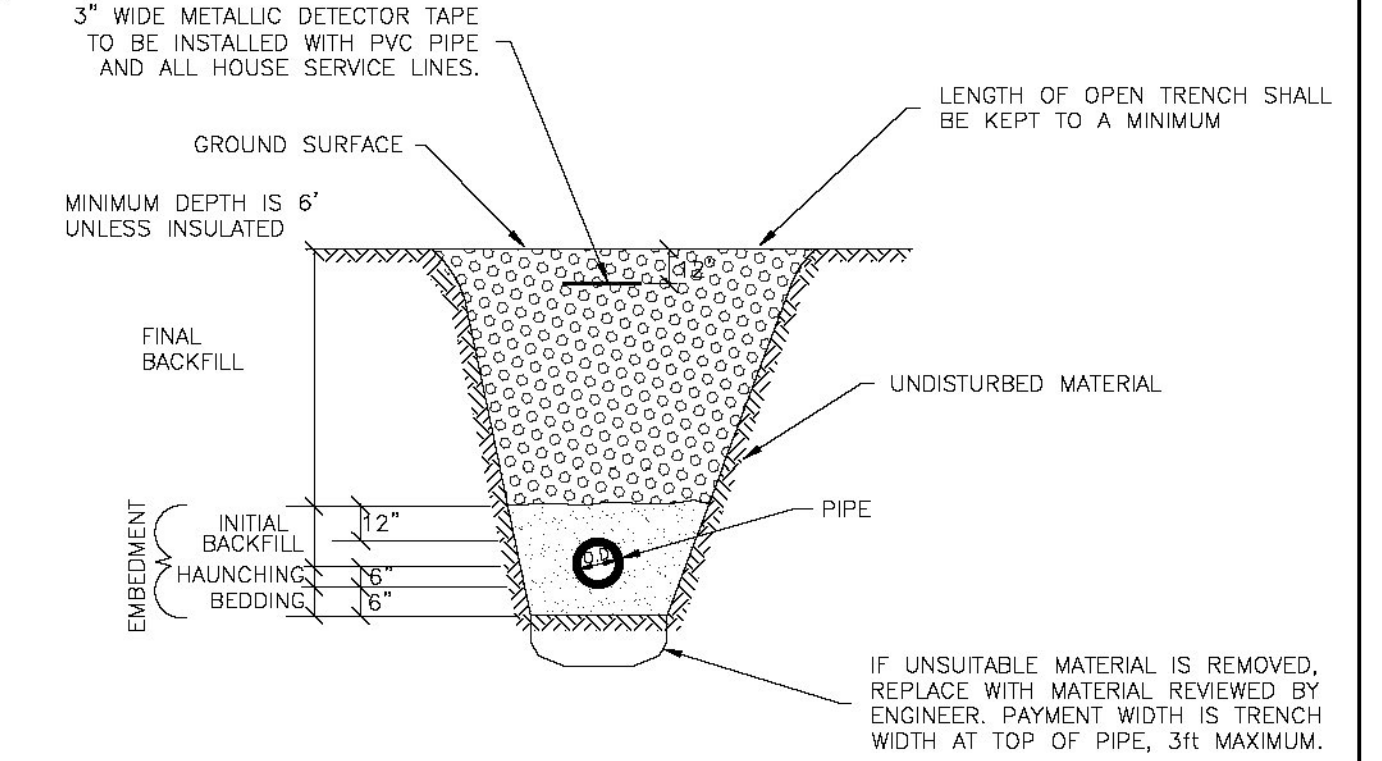


PROPOSED SITE PLAN
SCALE: 1" = 20'



SECTION 32
SCALE: 3/8" = 1'-0" ±

- NOTES:**
- ALL BOLTS, NUTS, WASHERS, AND OTHER HARDWARE RELATED TO THE WATER MAIN SUPPORT SHALL BE HOT DIPPED GALVANIZED.
 - STEEL PLATES SHALL BE ASTM A36 STEEL
 - STEEL TUBES SHALL BE ASTM A500, GRADE B, Fy = 46ksi

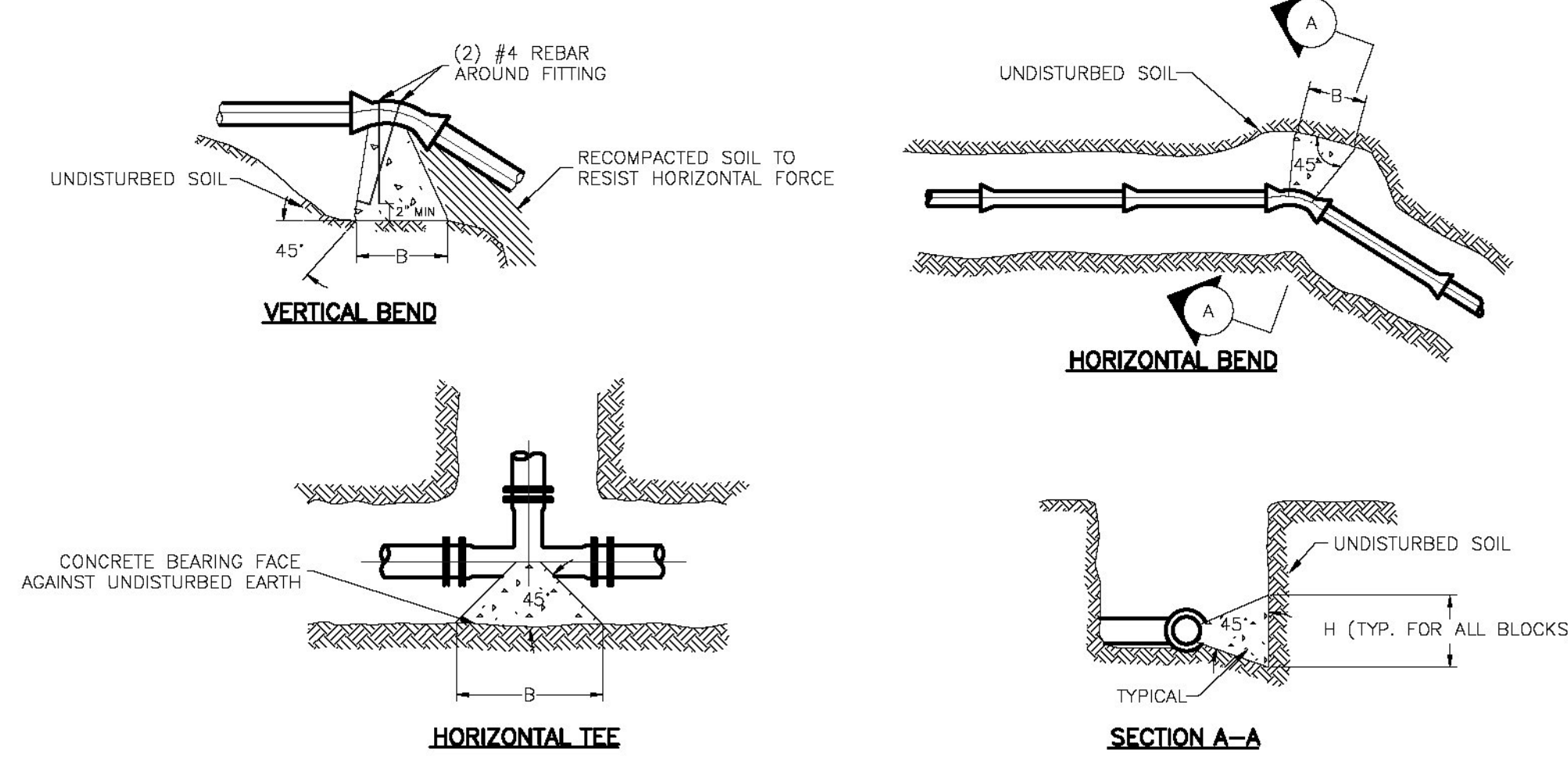


TYPICAL TRENCH DETAIL BURIED WATER PIPE
SCALE: NONE

- TRENCH NOTES**
- NO MECHANICAL TAMPERS SHALL BE USED DIRECTLY OVER PIPE TO INSURE THE PIPE IS NOT DAMAGED.
 - ROCK EXCAVATION PAY LIMITS: ROCK EXCAVATION PAYMENT IS INCLUDED IN ITEM 203.16
 - EMBEDMENT MATERIALS SHALL BE TESTED AND SHOWN BY THE CONTRACTOR TO MEET THE REQUIREMENTS OF SPEC. SECTION 203.
 - MATERIALS SHALL BE PLACED IN MAXIMUM 6" LAYERS AND COMPACTED TO ACHIEVE NOT LESS THAN 90% (95% IN ROADS) OF MAXIMUM DENSITY (STANDARD PROCTOR DENSITY).
 - FINAL BACKFILL (SUITABLE MATERIALS) SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION, BE GREATER THAN 50lbs, OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIALS.
 - WIDTH OF TRENCH AT SURFACE SHALL BE KEPT AS NARROW AS PRACTICAL.
 - PAYMENT UNDER THE ITEMS OF WORK SPECIFIED IN THE CONTRACT DOCUMENTS IS TO THE LIMITS SHOWN.
 - TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACEMENT OF PIPE BEDDING MATERIAL, AND BE KEPT DEWATERED DURING INSTALLATION OF PIPE, EMBEDMENT MATERIALS, AND INITIAL BACKFILL.
 - PERMANENT SHEETING SHALL BE INSTALLED ONLY IF REQUIRED BY JOB CONDITIONS.
 - SEE SPECIFICATIONS SECTION 200 EARTHWORK FOR MORE COMPLETE MATERIALS SPECIFICATION.

THE FOLLOWING EMBEDMENT MATERIALS MAY BE USED FOR D.I.

MANUFACTURED GRANULAR MATERIAL, MAXIMUM PARTICLE SIZE = 1 1/2"
COARSE SANDS AND GRAVELS, MAXIMUM PARTICLE SIZE OF 1 1/2". GENERALLY GRANULAR AND NON-COHESIVE.
MIXED GRAIN SOILS: FINE SAND AND CLAYEY GRAVELS, INCLUDING FINE SANDS, SANDY-CLAY MIXTURES AND GRAVEL-CLAY MIXTURES. MAXIMUM PARTICLE SIZE = 1 1/2".

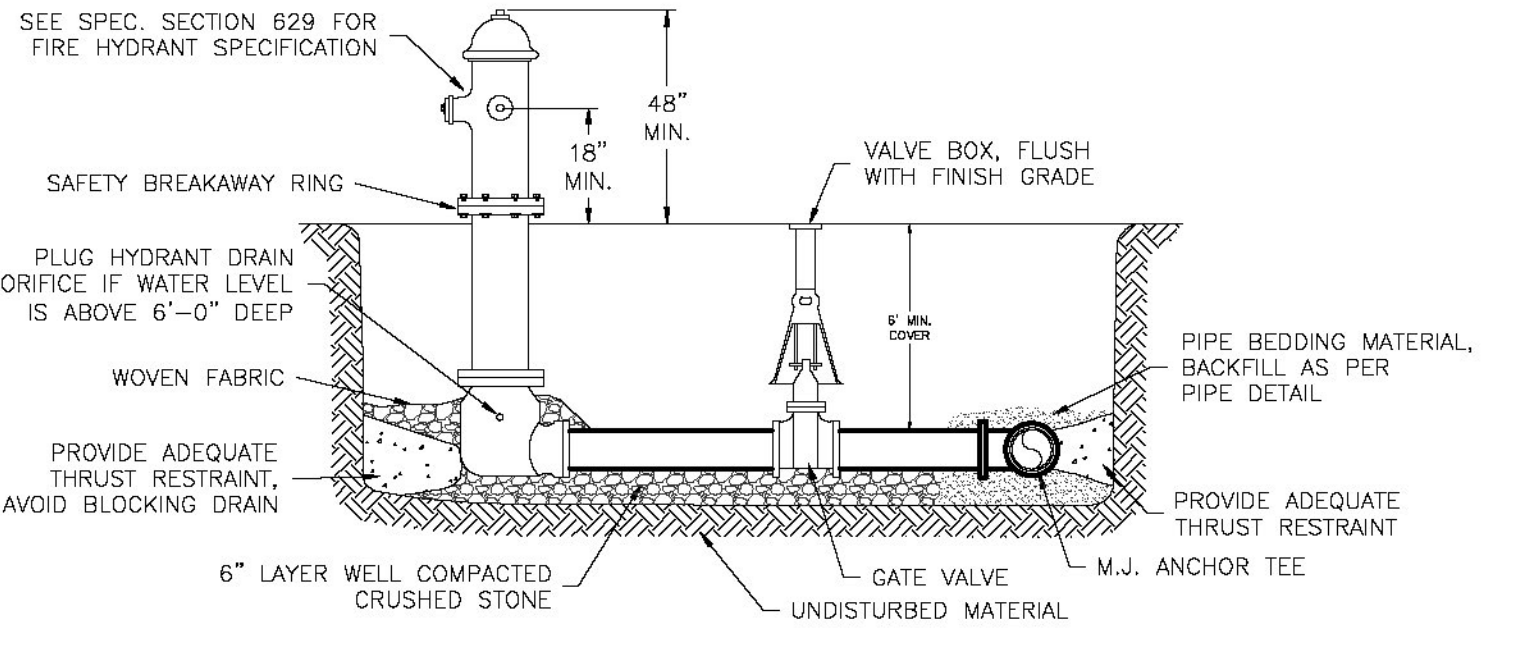


TYPICAL BEARING THRUST BLOCK DETAILS AND SECTION
SCALE: NONE

- NOTES:**
- ALL THRUST BLOCKS SHALL BE CLASS "B" CONCRETE, SEE SPEC. SECTION 541
 - CONCRETE SHALL BE PLACED SO AS NOT TO HAMPER THE FUTURE REMOVAL OF A FITTING.
 - WRAP FITTINGS IN (2) LAYERS POLYETHYLENE PLASTIC SHEET PRIOR TO FORMING AND POURING THRUST BLOCK.

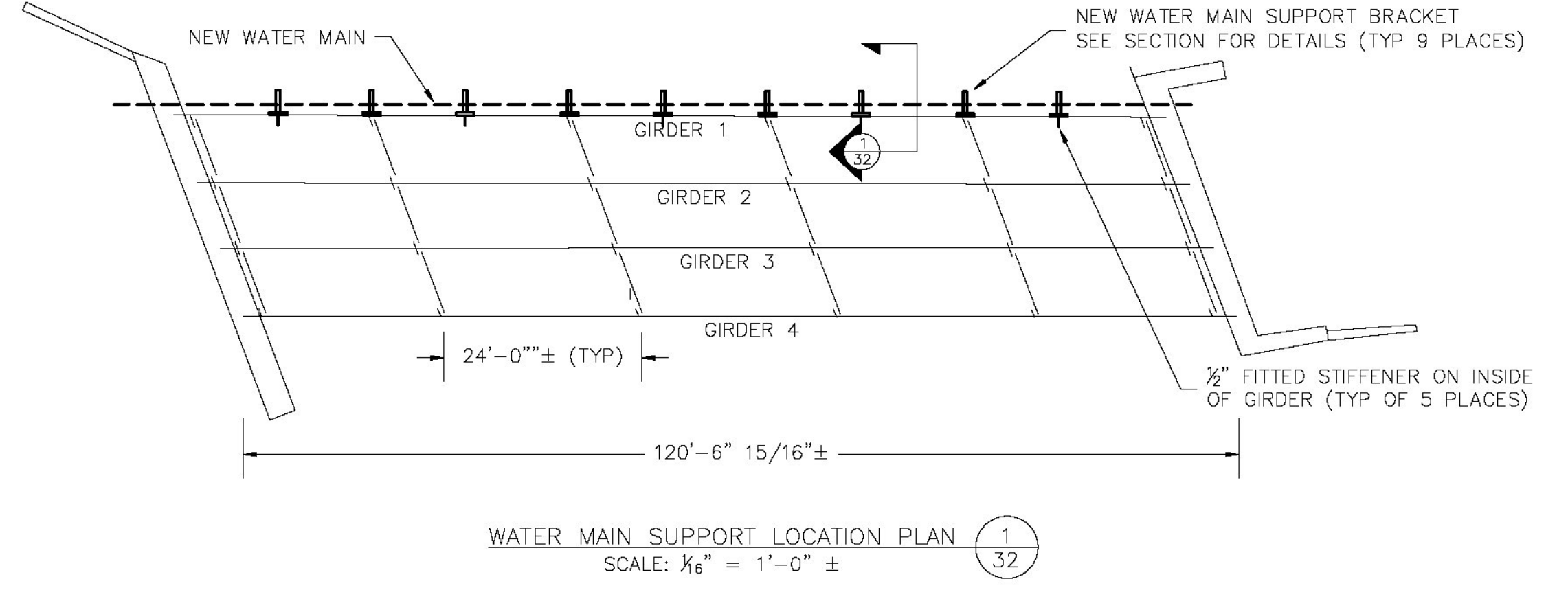
BEARING FACE MATERIALS	PIPELINE SIZE	HEIGHT (H) AND WIDTH (B) OF BEARING FACE FOR FITTING TO BE RESTRAINED																					
		11'-1/4" BEND	45° BEND	90° BEND	TEES & PLUGS	WYES	H		B		H		B										
WELL GRADED SANDS AND GRAVEL	4" x 6"	1.30	1.30	1.30	1.30	1.30	1.95	1.65	2.60	1.30	2.30	1.30	1.95	1.30	1.95	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	8"	1.30	1.30	1.30	1.25	1.95	2.80	1.95	3.55	1.95	2.80	1.65	2.60	1.30	2.60	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	10"	1.30	1.30	1.65	1.95	1.95	3.25	2.60	4.20	2.60	2.90	1.95	3.25	1.30	3.25	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	12"	1.30	1.95	1.65	2.60	2.60	3.25	2.90	5.20	2.90	3.90	2.60	3.25	1.30	3.25	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
SILT	4" x 6"	1.30	1.30	1.30	1.30	1.30	2.30	1.65	3.25	1.85	1.95	1.30	2.30	1.30	2.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	8"	1.30	1.30	1.30	1.30	1.30	2.30	2.30	4.20	1.95	2.90	1.30	3.90	1.95	2.90	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	10"	1.30	1.95	1.65	2.90	2.90	3.50	3.25	5.20	2.60	4.50	2.60	5.20	1.30	5.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	12"	1.30	2.30	2.30	2.60	2.30	5.20	3.25	6.45	3.25	4.55	2.30	5.20	1.30	5.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
COHESIVE GRANULAR	4" x 6"	1.30	1.30	1.30	1.30	1.30	2.60	1.95	3.25	1.95	2.30	1.30	2.60	1.30	2.60	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	8"	1.30	1.30	1.30	2.30	1.95	2.90	2.90	4.20	1.95	3.90	1.95	3.90	1.95	2.90	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	10"	1.30	1.95	1.65	2.90	2.60	3.50	3.25	5.20	2.60	4.50	2.60	5.20	1.30	5.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	12"	1.30	2.60	2.30	2.90	2.60	5.20	3.90	6.15	3.25	5.20	2.60	5.20	1.30	5.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
CLAY	4" x 6"	1.30	1.30	1.30	1.30	1.30	2.60	1.95	3.25	1.95	2.30	1.30	2.60	1.30	2.60	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	8"	1.30	1.30	1.30	2.30	1.95	2.90	2.90	4.20	1.95	3.90	1.95	3.90	1.95	2.90	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	10"	1.30	1.95	1.65	2.90	2.30	3.50	3.25	5.20	2.60	4.50	2.60	5.20	1.30	5.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	12"	1.30	2.60	1.95	3.25	2.60	4.65	3.55	6.45	2.90	5.50	2.90	6.45	1.30	6.45	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30

1. HYDROSTATIC AND LEAKAGE TEST PRESSURE PER SPECIFICATIONS.
2. UNDISTURBED EARTH: SIDE OF TRENCH OR OTHER EXCAVATION.
3. SEE DIAGRAM FOR H AND B LOCATION REFERENCE, MEASURED IN FEET.



TYPICAL HYDRANT DETAIL
SCALE: NONE

- NOTES:**
- HYDRANT SHALL BE FULLY EXPOSED, OPEN LEFT, AND HAVE (2) 2 1/2" NTS HOSE CONNECTIONS AND (1) 4" PUMPER CONNECTION. HYDRANT SHALL BE 5/8" PACER BY AMERICAN FLOW CONTROL, OR EQUAL. BRANCH PIPING SHALL BE 6" D.I. CL-52 AND GATE VALVE TO BE MODEL AFC-2500 BY AMERICAN FLOW CONTROL, OR EQUAL.
 - ALL BRANCH PIPING AND FITTINGS SHALL BE MECHANICAL JOINT.
 - HYDRANTS WHICH ARE INSTALLED WHERE THE NATURAL GROUND WATER TABLE IS ABOVE THE HYDRANT DRAIN ORIFICE SHALL HAVE THE DRAIN PLUGGED. HYDRANTS WITH PLUGGED DRAINS SHALL BE LABELED "ND" (FOR NON-DRAINING) IN 3" HIGH ORANGE PAINT LETTERS ON THE BONNET FACING THE ROAD.
 - THE SHORT BRANCH = 4'-0"



WATER MAIN SUPPORT LOCATION PLAN
SCALE: 3/8" = 1'-0" ±

- NOTES:**
- BRIDGE CROSSING IS TO BE CONSTRUCTED UTILIZING 8" TR-FLEX DUCTILE IRON PIPE OR EQUAL, AND IS TO BE INSULATED WITH 3" TRYMER 2000 XP PIPE INSULATION, PABCO-CHILDERS METALS 0.20" THICK ALUMINUM JACKET WITH STAINLESS STEEL BANDS AND ANVIL INT FIGURE #167 SHIELDS OR EQUIVALENT, APPROVED PRODUCTS. REFER TO THE WATER MAIN SUPPORT LOCATION PLAN AND SECTION FOR FURTHER INFORMATION. PIPE JOINTS TO BE PROPERLY INSULATED AND JACKETED AS PER MANUFACTURERS RECOMMENDATIONS.
 - THE PROPERTY LINES, EASEMENTS, AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ARE APPROXIMATE. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26.V.S.A(4). AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
 - THE BASE MAP FOR THIS PLAN WAS PROVIDED BY VAOT FROM DRAWING "s05j352utilbrd"
 - WATER MAINS (INCLUDING TEMPORARY MAINS) ARE TO BE FULLY DISINFECTED AND PRESSURE TESTED PRIOR TO CONNECTION TO THE EXISTING WATER SYSTEM.
 - STATIC PRESSURE IN EXISTING SYSTEM AT THIS LOCATION IS APPROX. 160psi

Alan Huizenga, P.E.

REV.#	02/20/13	AS PER VTRANS COMMENTS	RHW	CHK
DESCRIPTION	South Street Watermain Bridge Crossing			
DESIGNED	AH	PROJECT NO.	22-001	
DRAWN	RHW	DRAWING NO.	32	
CHECKED	-	PLOT DATE	09/13/12	
		SCALE	AS SHOWN	
		DATE	SEPT. 2012	
TOWN OF BRISTOL		BRISTOL, VERMONT		

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