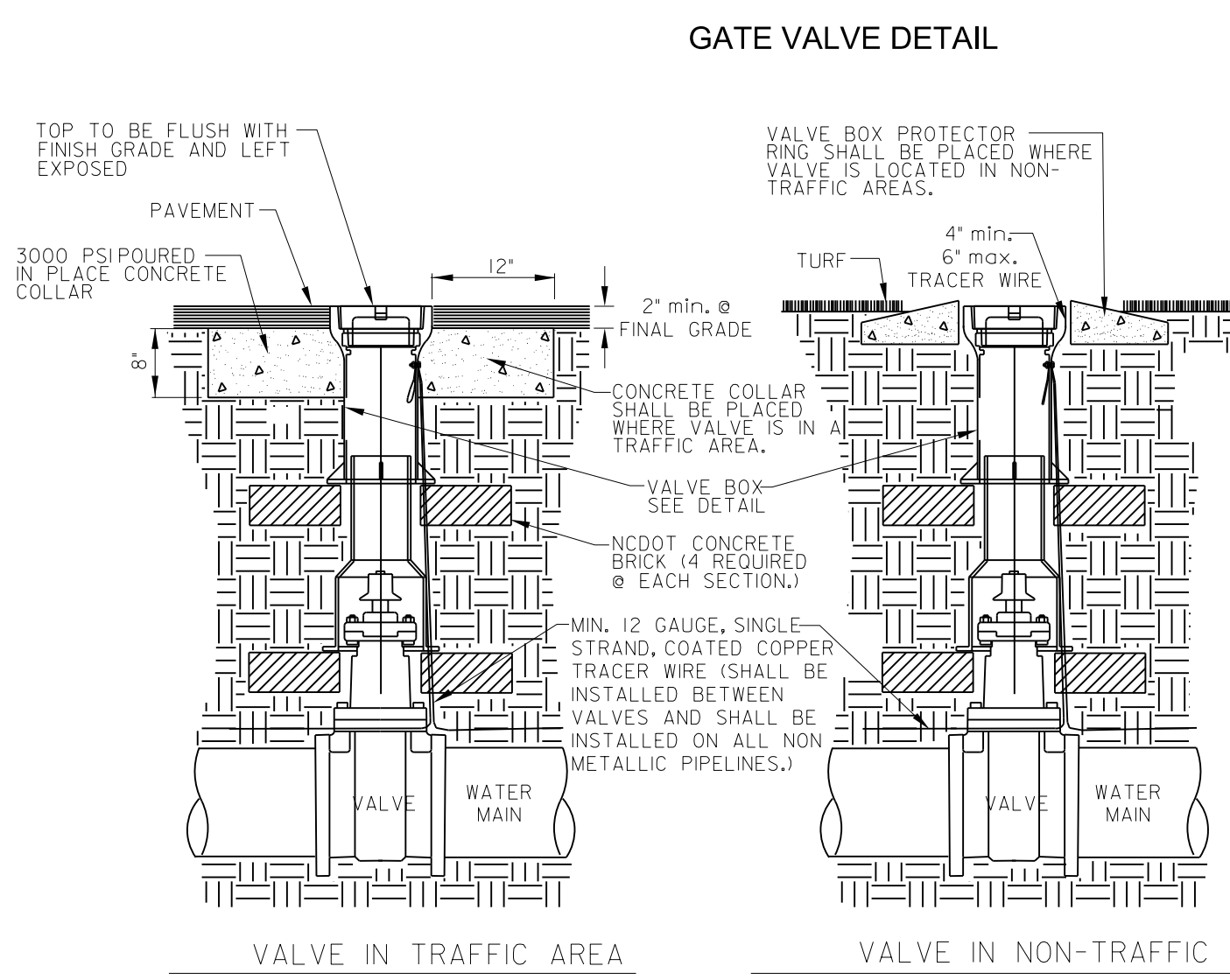
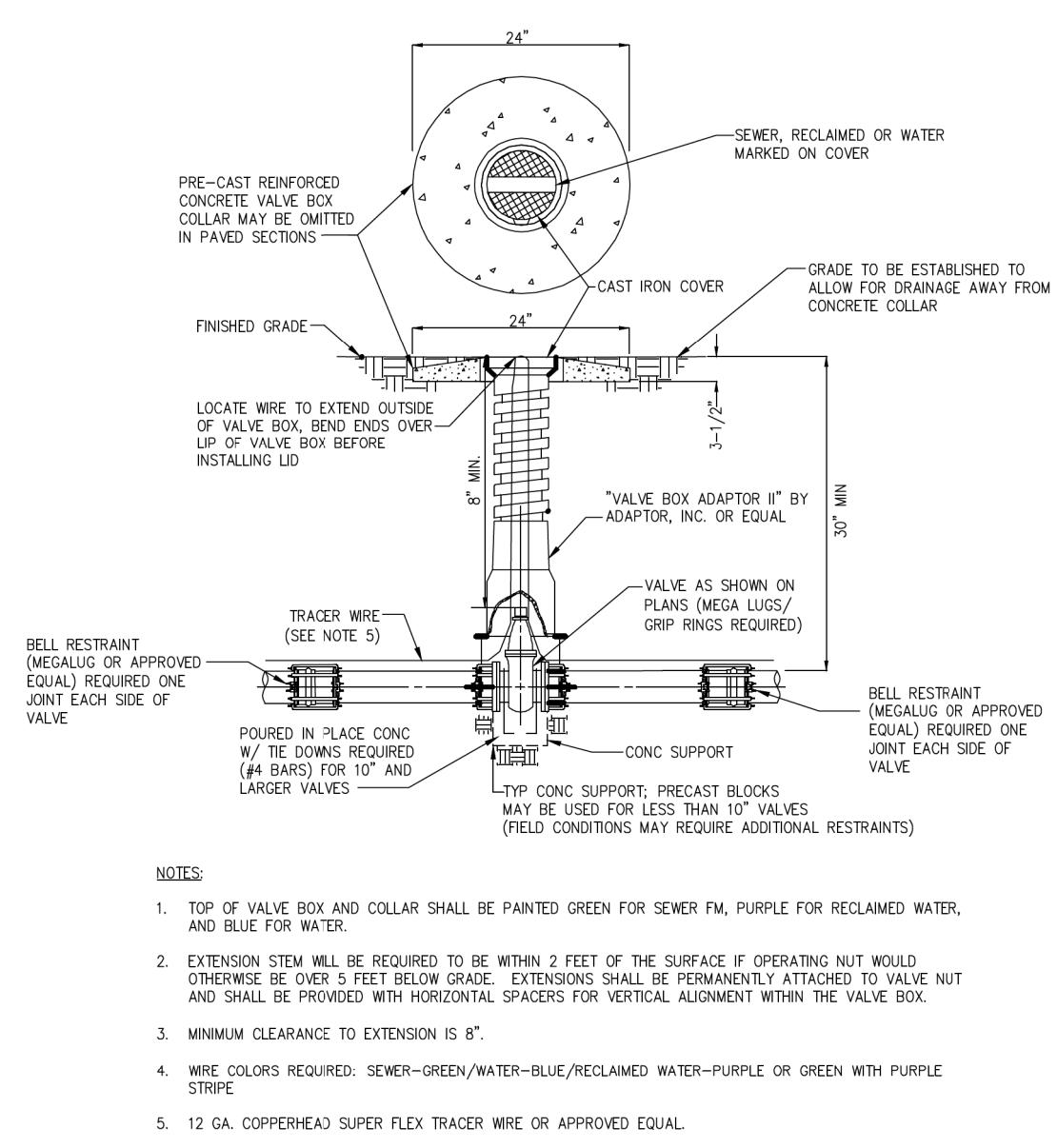


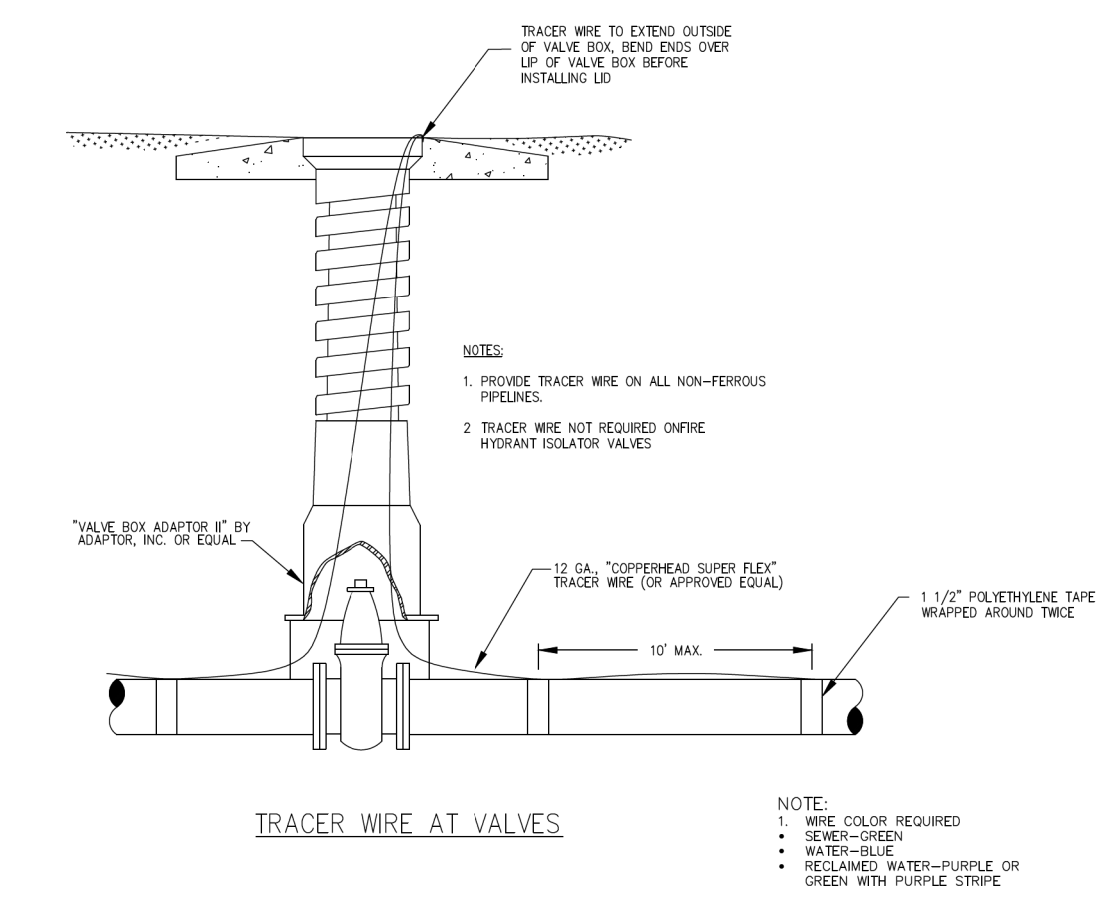
UTILITY CONSTRUCTION



- NOTES:**
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH NCDOT STANDARDS.
 2. RESILIENT WEDGE GATE VALVE SHALL BE AS MANUFACTURED BY MUELLER CORP., AMERICAN DARLING OR CLOW CORP.
 3. ALL VALVES SHALL HAVE 2" SQUARE OPERATING NUT AND SHALL OPEN COUNTERCLOCKWISE.
 4. VALVE BODY, BONNET AND GATE SHALL BE IN ACCORDANCE WITH AWWA C-509/C-515 AND NSF 61.
 5. VALVE BODY AND BONNET SHALL BE COATED ON ALL INTERIOR AND EXTERIOR SURFACES WITH A FUSION BONDED EPOXY IN ACCORDANCE WITH AWWA C-550-90.
 6. ALL VALVES 24" AND SMALLER SHALL HAVE A SAFE WORKING PRESSURE OF 250 PSI.
 7. SEE VALVE BOX DETAIL FOR ADDITIONAL INFORMATION.
 8. SEE VALVE BOX DETAIL FOR ADDITIONAL INFORMATION.
 9. VALVE BOX SECTIONS ARE REQUIRED. THE USE OF PIPE IN LIEU OF VALVE BOX SECTIONS SHALL NOT BE PERMITTED.



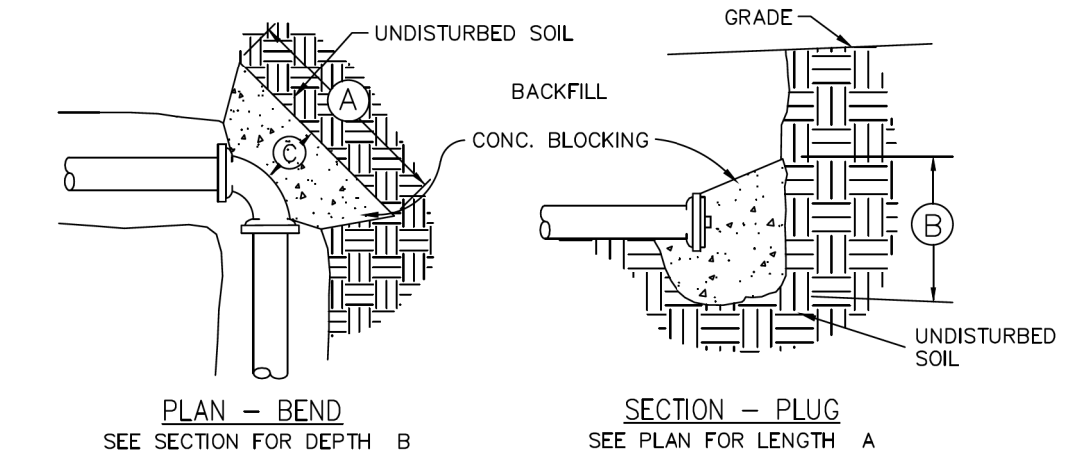
- NOTES:**
1. TOP OF VALVE BOX AND COLLAR SHALL BE PAINTED GREEN FOR SEWER, PURPLE FOR RECLAIMED WATER, AND BLUE FOR WATER.
 2. EXTENSION STEM WILL BE REQUIRED TO BE WITHIN 2 FEET OF THE SURFACE IF OPERATING NUT WOULD OTHERWISE BE OVER 5 FEET BELOW GRADE. EXTENSIONS SHALL BE PERMANENTLY ATTACHED TO VALVE NUT AND SHALL BE PROVIDED WITH HORIZONTAL SPACERS FOR VERTICAL ALIGNMENT WITHIN THE VALVE BOX.
 3. MINIMUM CLEARANCE TO EXTENSION IS 8".
 4. WIRE COLORS REQUIRED: SEWER-GREEN/WATER-BLUE/RECLAIMED WATER-PURPLE OR GREEN WITH PURPLE STRIPE.
 5. 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE OR APPROVED EQUAL.



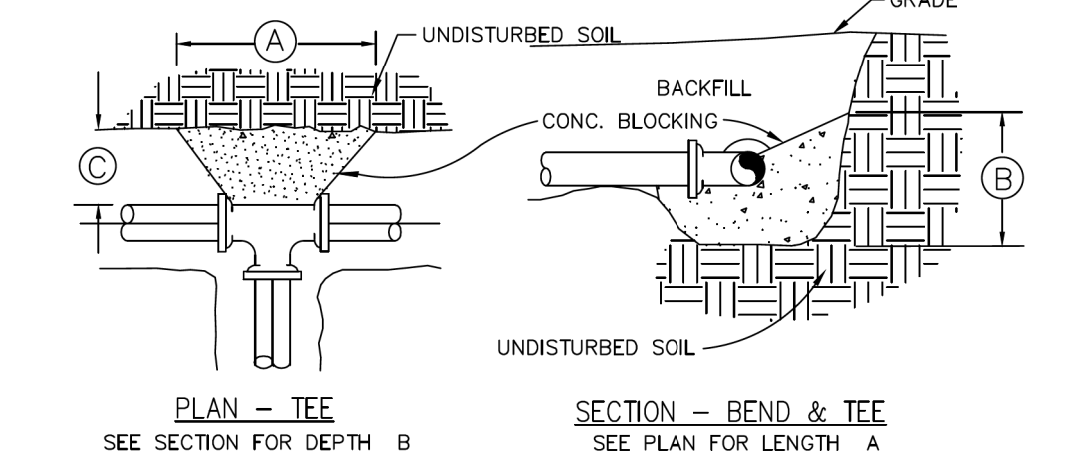
- NOTES:**
1. PROVIDE TRACER WIRE ON ALL NON-FERROUS PIPELINES.
 2. TRACER WIRE NOT REQUIRED ON FERRIC HYDRANT VALVES.

BLOCKING DIMENSIONS

PIPE SIZE	A	B	C
UP TO 10"	4' - 0"	2' - 6"	1' - 6"
12" TO 16"	5' - 0"	4' - 0"	2' - 0"
18" TO 24"	8' - 0"	6' - 0"	3' - 0"

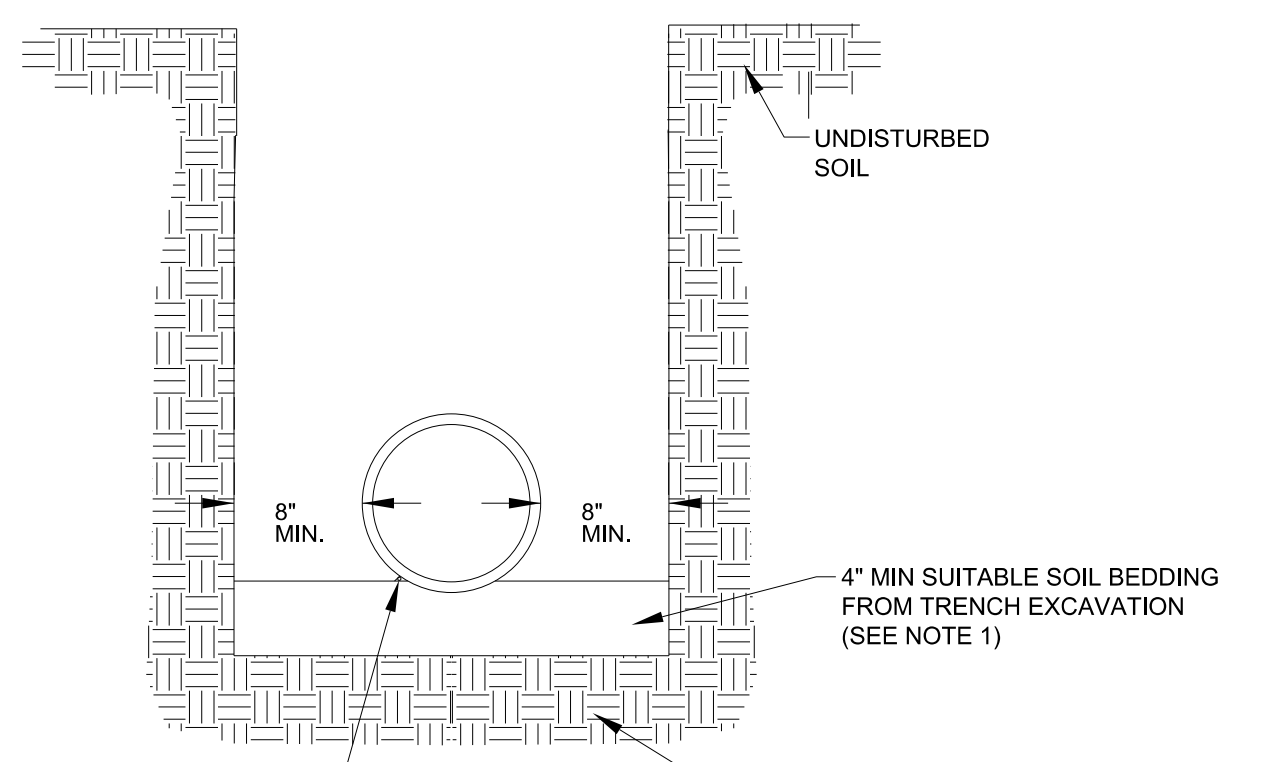


- NOTES:**
1. 2500 P.S.I. CONC.
 2. REMOVE LOOSE EARTH AND POUR AGAINST UNDISTURBED SOIL.
 3. BACKFILL TO EXISTING/FINISH GRADE AFTER CONCRETE HAS CURED FOR 24 HOURS.
 4. CONCRETE SHALL NOT COVER FLANGES, BOLTS, MEGA-LUGS, RODS, ETC.



THRUST BLOCKS

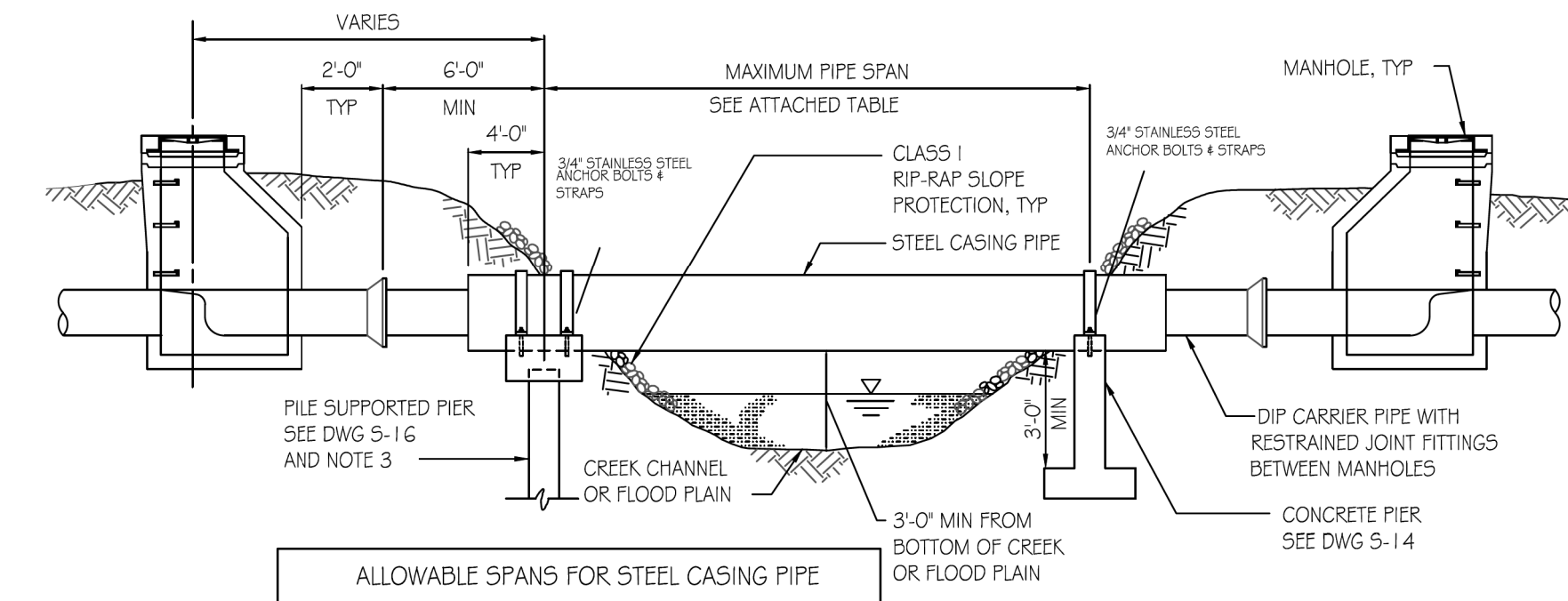
WATER MAIN BEDDING DETAIL



- NOTES:**
1. SUITABLE SOIL BEDDING IS DEFINED AS "NATIVE" SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH.
 2. SUITABLE BEDDING MATERIAL SHALL EXTEND TO UNDISTURBED TRENCH WALLS.
 3. IF GROUND CONDITIONS WARRANT, IT MAY BE NECESSARY TO BED DUCTILE IRON WATER MAINS IN SELECT BEDDING MATERIAL (No.5 OR No.57 STONE) TO THE SPRINGLINE OF THE PIPE. SUCH INSTALLATION SHALL BE AS DIRECTED BY THE FAYPWC PROJECT COORDINATOR.

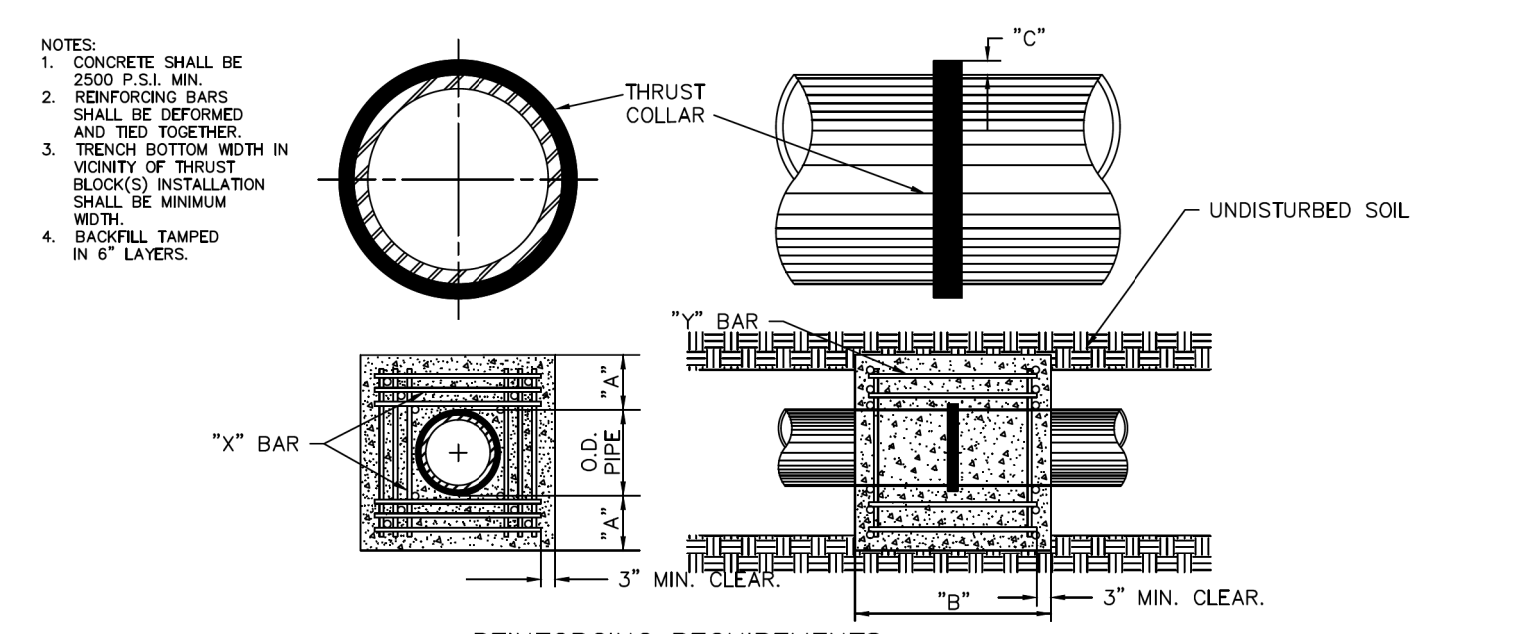
CONTINUOUS 12 GA. SINGLE STRAND COATED COPPER WIRE OR COPPER CLAD STEEL TRACING WIRE REQUIRED FOR ALL NON-FERROUS PIPE (FROM VALVE BOX TO VALVE BOX)

SUBBASE SHALL BE UNDISTURBED SOIL. WHERE SOIL IS DEEMED UNSUITABLE BY THE FAYPWC PROJECT COORDINATOR AUTHORIZED AREA SHALL BE UNDERCUT AND BACKFILLED WITH SELECT BEDDING MATERIAL (SEE NOTE 3).



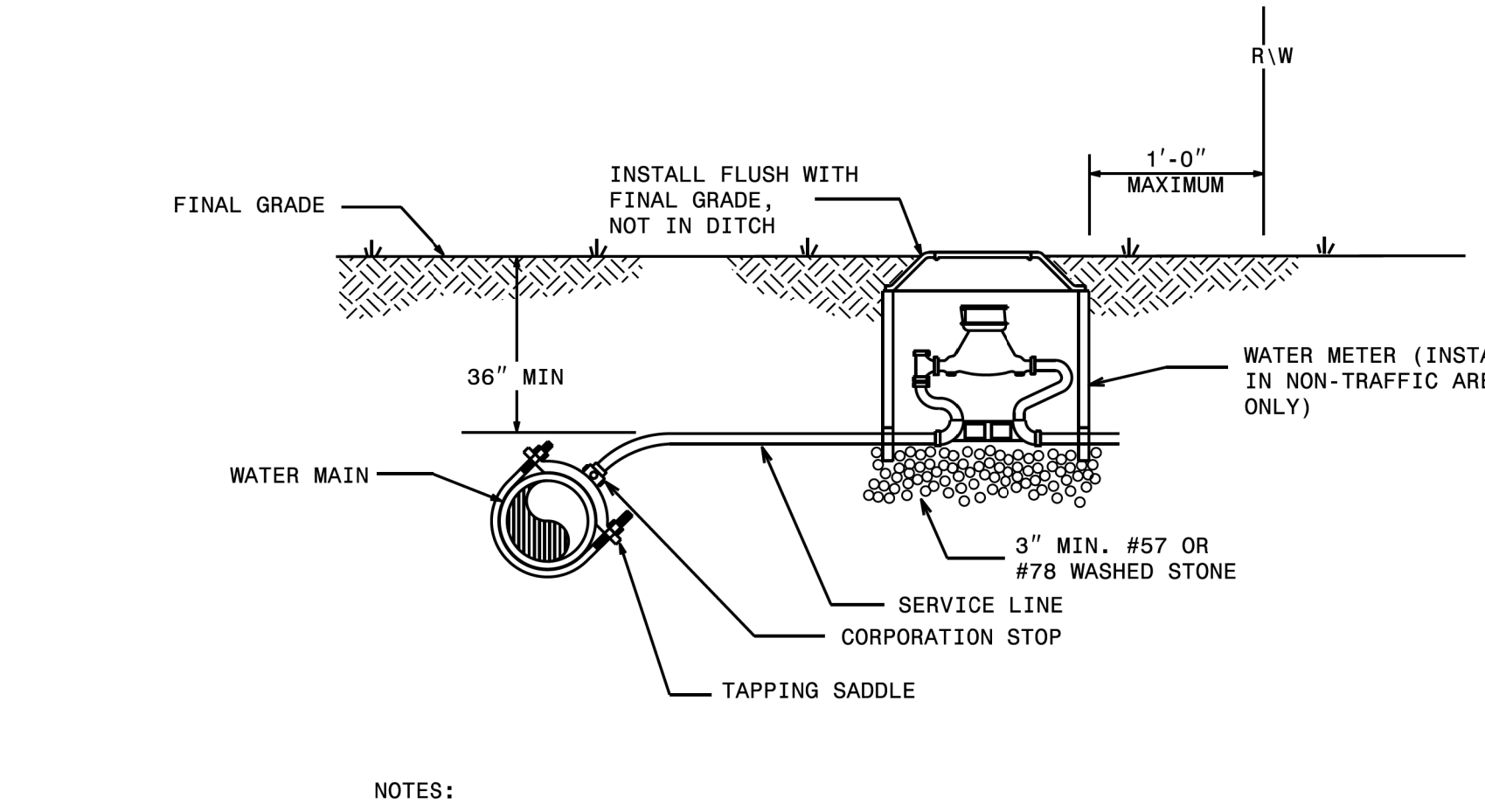
ALLOWABLE SPANS FOR STEEL CASING PIPE

CARRIER PIPE, DIP DIAMETER (IN.)	CASING PIPE, STEEL DIAMETER (IN.)	MINIMUM CASING PIPE WALL THICKNESS (IN.)	ALLOWABLE SPAN (FT.)
6	14	0.3750	40
8	16	0.3750	45
10	18	0.3750	50
12	20	0.3750	50
14	24	0.3750	55
16	26	0.3750	55
18	30	0.3750	60
20	32	0.3750	60
24	36	0.4375	65
30	42	0.4375	65
36	48	0.5000	65
42	56	0.5000	65

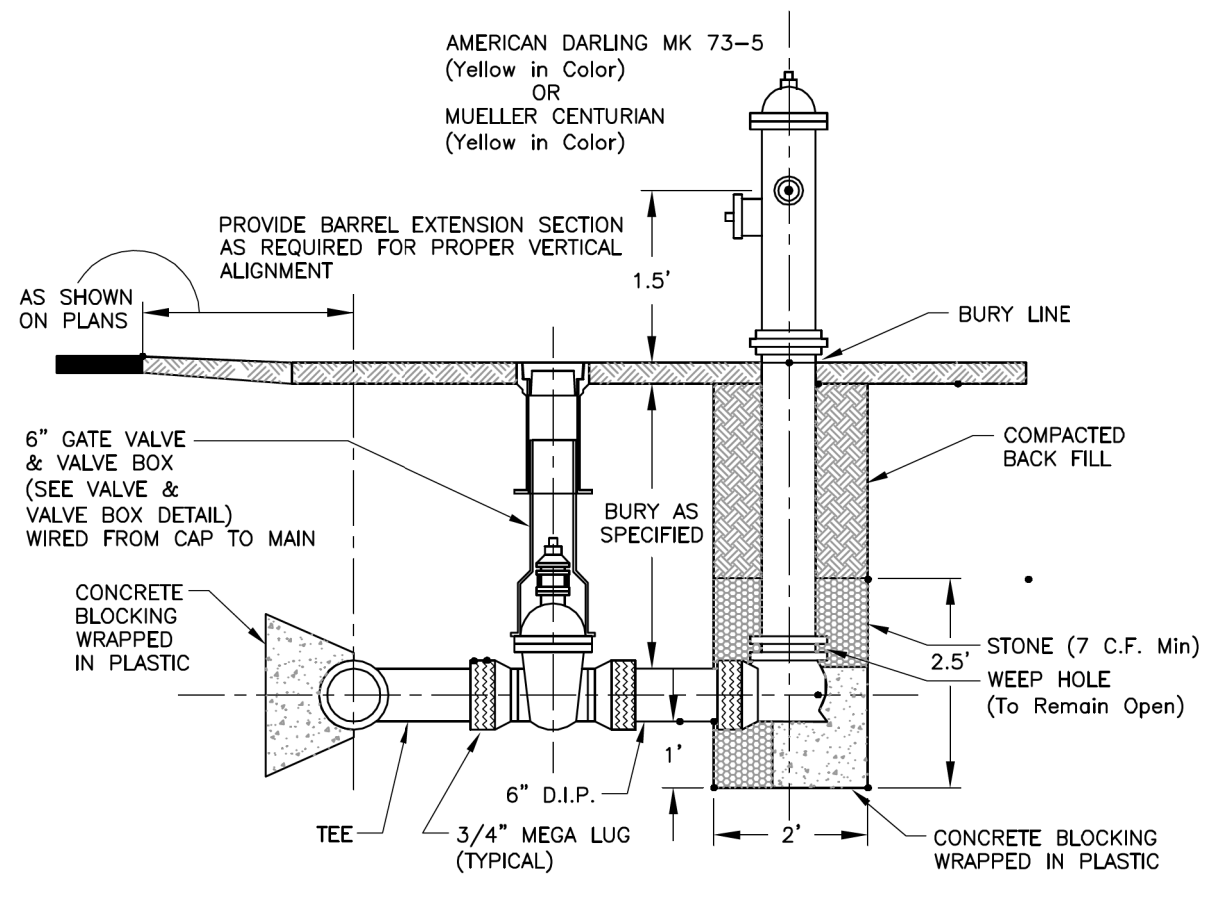


REINFORCING REQUIREMENTS

I.D. PIPE	REBAR SIZE	"X" BAR LENGTH	"Y" BAR WGT.	"Y" BAR LENGTH	"Y" BAR WGT.	NO. REQD.
6"-36"	#5	2'-2" O.D. PIPE	1.043 LBS./FT	1'-1"	1.1 LBS. EA.	X-24, Y-12
48"	#6	3'-0" O.D. PIPE	1.502 LBS./FT	1'-3"	1.9 LBS. EA.	X-24, Y-12



- NOTES:**
1. THIS DETAIL SHOWS THE TYPICAL FINAL WATER METER CONFIGURATION AFTER INSTALLATION OF A PROPOSED WATER METER, RECONNECTION OF AN EXISTING WATER METER, OR RELOCATION OF A WATER METER.



FIRE HYDRANT ASSEMBLY

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

5/14/99
 9/8/2021
 Utilities Engineering\UC\ProJ\RB021.Uc.dtl UC59C.psh.dgn