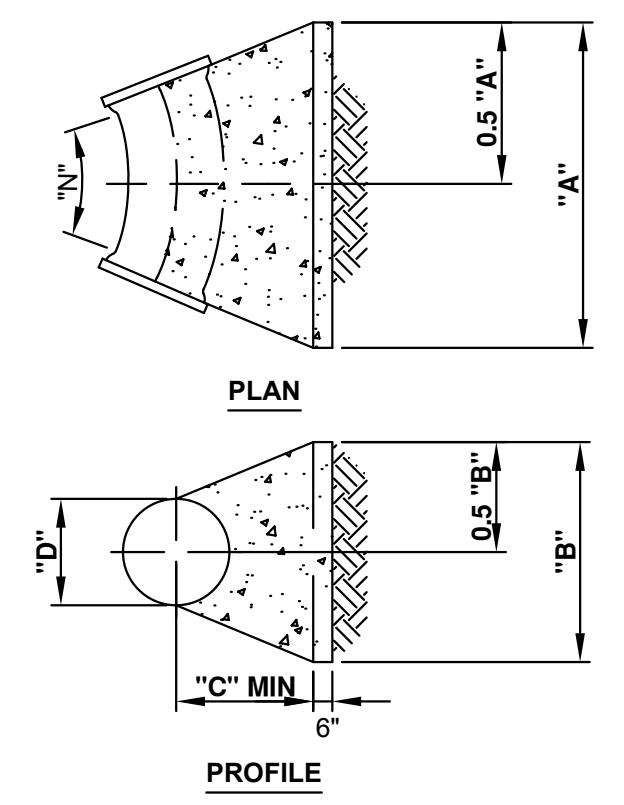
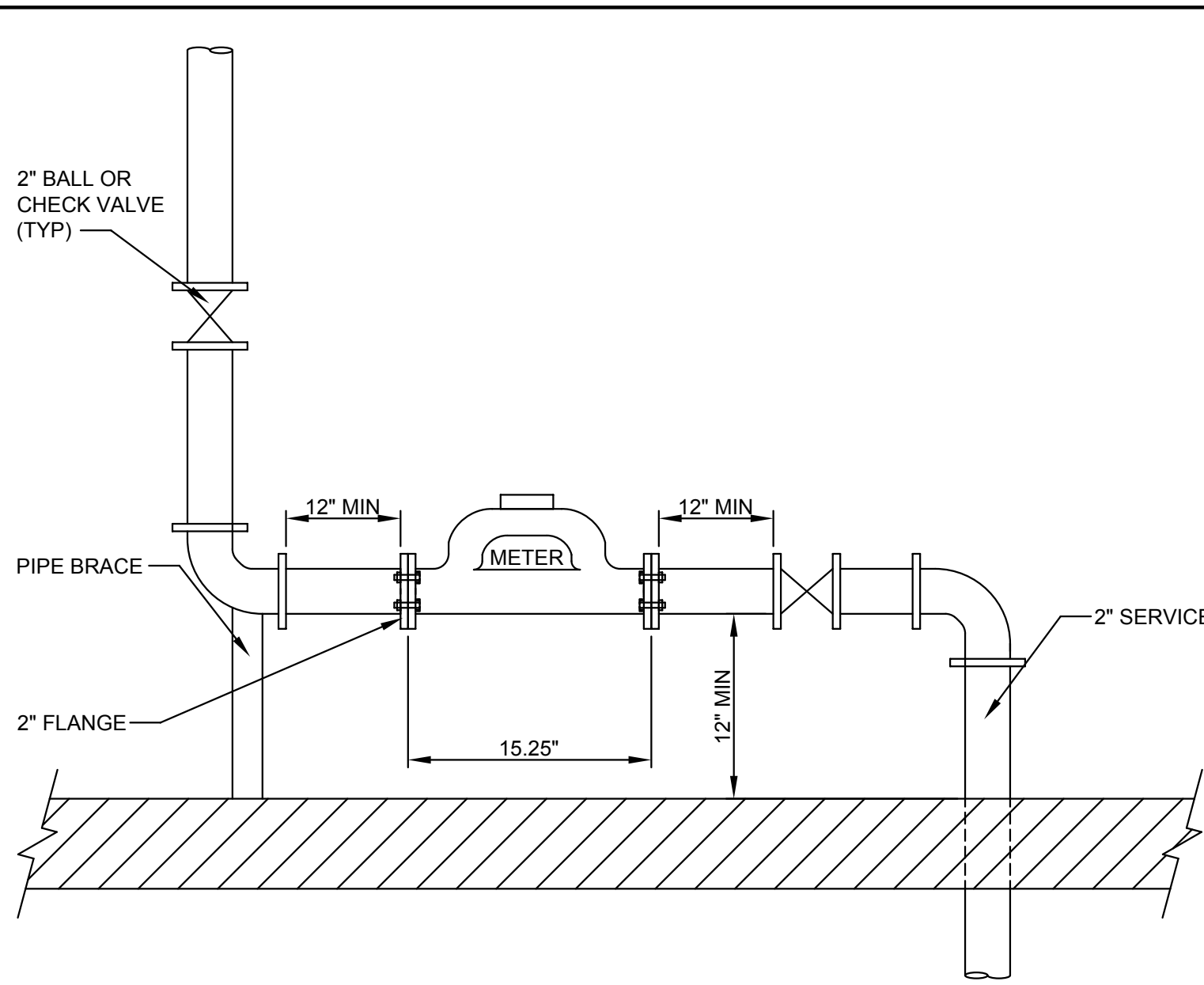


STANDARD COVER
EJIW #1040

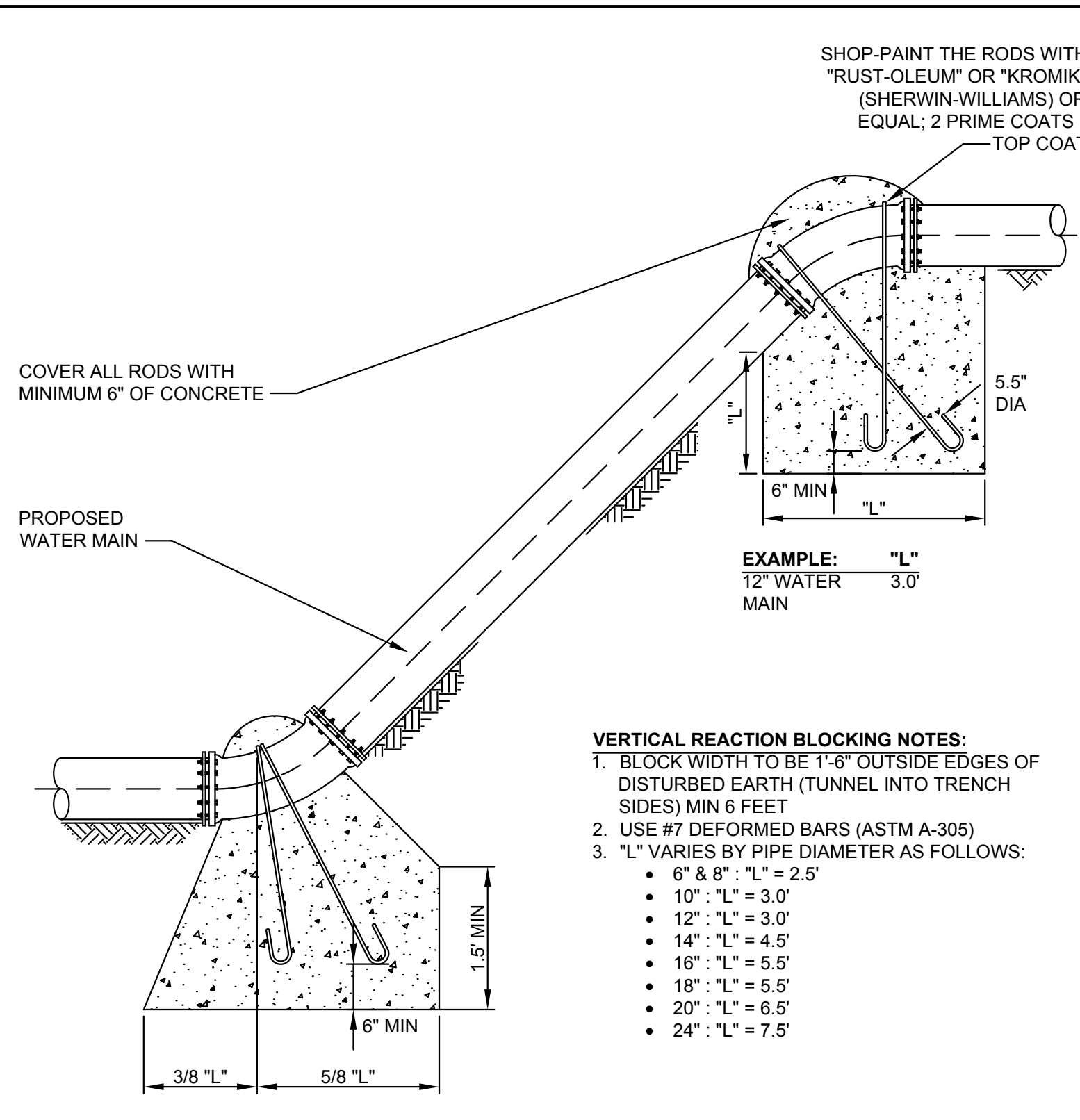


THRUST BLOCK



THE FOLLOWING INSTRUCTIONS ARE FOR SETTING A 2-INCH WATER METER.
 1. THE WATER METER MUST BE PLACED IN AN AREA THAT WILL BE PROTECTED FROM FREEZING AND PLACED 12-INCHES FROM THE NEAREST WALL.
 2. WATER METER MUST BE ACCESSIBLE FOR TESTING AND ROUTINE MAINTENANCE.
 3. A BY-PASS LINE WILL ONLY BE INSTALLED IN SPECIAL USE FACILITIES SUCH AS HOSPITALS, MEDICAL CLINICS, OR TO MEET BUILDING CODE REQUIREMENTS.

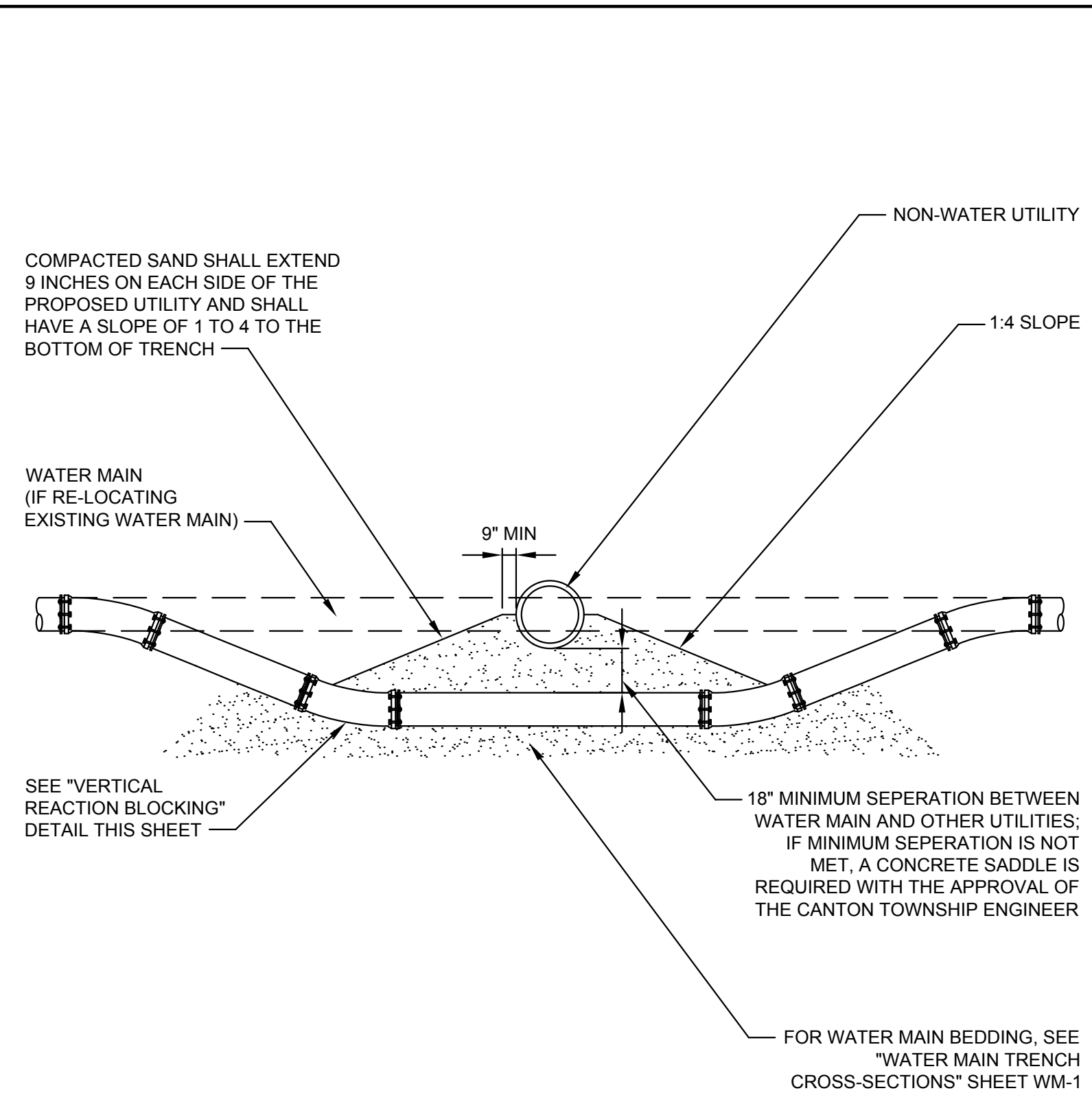
2" WATER METER INSTALLATION



VERTICAL REACTION BLOCKING NOTES:
 1. BLOCK WIDTH TO BE 1-8" OUTSIDE EDGES OF DISTURBED EARTH (TUNNEL INTO TRENCH SIDES) MIN 6 FEET
 2. USE #7 DEFORMED BARS (ASTM A-305)
 3. "L" VARIES BY PIPE DIAMETER AS FOLLOWS:
 • 6" & 8" : "L" = 2.5'
 • 10" : "L" = 3.0'
 • 12" : "L" = 3.0'
 • 14" : "L" = 4.5'
 • 18" : "L" = 5.5'
 • 20" : "L" = 5.5'
 • 24" : "L" = 7.5'

EXAMPLE:
 12" WATER MAIN : 3/8 "L" = 1.125'
 30" WATER MAIN : 5/8 "L" = 1.875'

VERTICAL REACTION BLOCKING



COMPACTED SAND SHALL EXTEND 9 INCHES ON EACH SIDE OF THE PROPOSED UTILITY AND SHALL HAVE A SLOPE OF 1 TO 4 TO THE BOTTOM OF TRENCH
 NON-WATER UTILITY
 1:4 SLOPE
 WATER MAIN (IF RE-LOCATING EXISTING WATER MAIN)
 9" MIN
 18" MINIMUM SEPERATION BETWEEN WATER MAIN AND OTHER UTILITIES; IF MINIMUM SEPERATION IS NOT MET, A CONCRETE SADDLE IS REQUIRED WITH THE APPROVAL OF THE CANTON TOWNSHIP ENGINEER
 SEE "VERTICAL REACTION BLOCKING" DETAIL THIS SHEET
 FOR WATER MAIN BEDDING, SEE "WATER MAIN TRENCH CROSS-SECTIONS" SHEET WM-1

WATER MAIN/UTILITY CROSSING

BEND	THRUST BLOCK DIMENSION	DIMENSION OF WATER MAIN					
		6"	8"	10" & 12"	14" & 16"	18" & 20"	24" +
90°	A	2'-9"	3'-0"	5'-6"	6'-0"	9'-0"	11'-0"
	B	1'-6"	2'-6"	3'-0"	5'-0"	6'-0"	6'-0"
	C	9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
45°	A	2'-0"	2'-0"	3'-6"	5'-6"	6'-6"	7'-0"
	B	1'-6"	2'-0"	2'-6"	3'-0"	4'-0"	5'-0"
	C	1'-0"	1'-3"	1'-6"	1'-9"	1'-9"	2'-0"
22 1/2°	A	1'-6"	1'-9"	3'-0"	4'-0"	4'-0"	4'-0"
	B	1'-0"	1'-3"	1'-6"	2'-0"	3'-0"	4'-6"
	C	1'-0"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
11 1/4°	A	1'-0"	1'-3"	1'-6"	2'-0"	3'-1"	3'-0"
	B	1'-0"	1'-3"	1'-6"	2'-0"	2'-0"	3'-0"
	C	1'-0"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
TEE	A	2'-0"	2'-6"	4'-0"	5'-0"	8'-0"	9'-0"
	B	1'-6"	2'-0"	3'-0"	4'-0"	4'-0"	5'-0"
	C	9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"
PLUG	A	2'-0"	2'-6"	4'-0"	5'-0"	8'-0"	9'-0"
	B	1'-6"	2'-0"	3'-0"	4'-0"	4'-0"	5'-0"
	C	9"	1'-0"	1'-3"	1'-6"	1'-9"	2'-0"

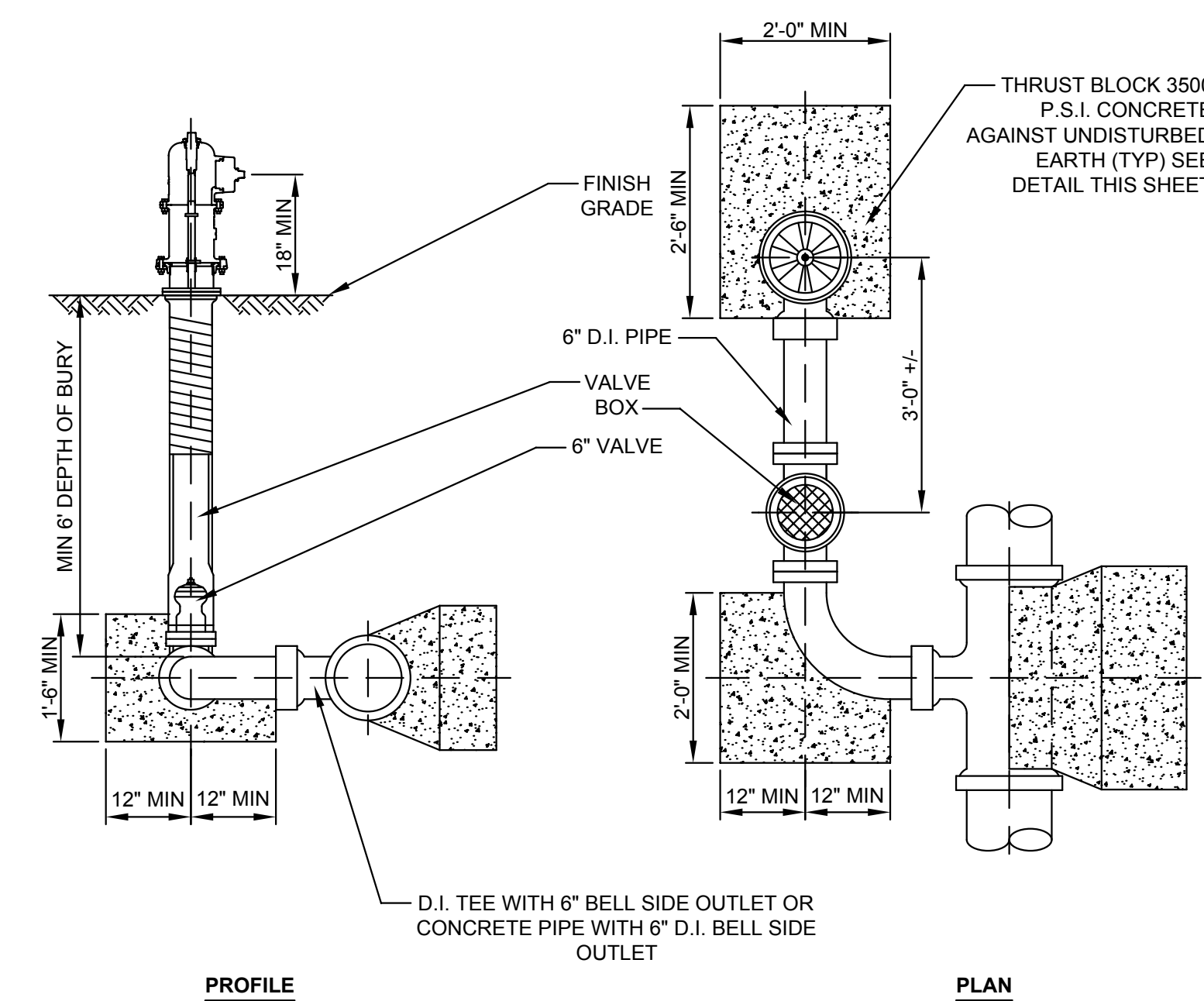
THRUST BLOCK NOTES:
 1. 3500 P.S.I. CONCRETE POURED AGAINST UNDISTURBED EARTH.
 2. WHEN "A" DIMENSION IS 6 FEET OR GREATER, USE #4 RE-BAR AT 12-INCH CENTERS EACH WAY.
 3. THE TABLE IS BASED ON SOIL BEARING OF 1500 P.S.F. THEREFORE, WHEN PLACED IN MUCK, PEET, OF OTHER UNSUITABLE SOILS HAVING A SOIL BEARING LESS THAN 1500 P.S.F., THE CONTRACTOR SHALL PROVIDE SUITABLE ADDITIONAL BLOCKING, ENCASEMENT, OR RESTRAINTS.
 4. BLOCKING IN BORE PIT EXCAVATIONS SHALL BE AGAINST UNDISTURBED SOIL.

THRUST BLOCK DIMENSIONS

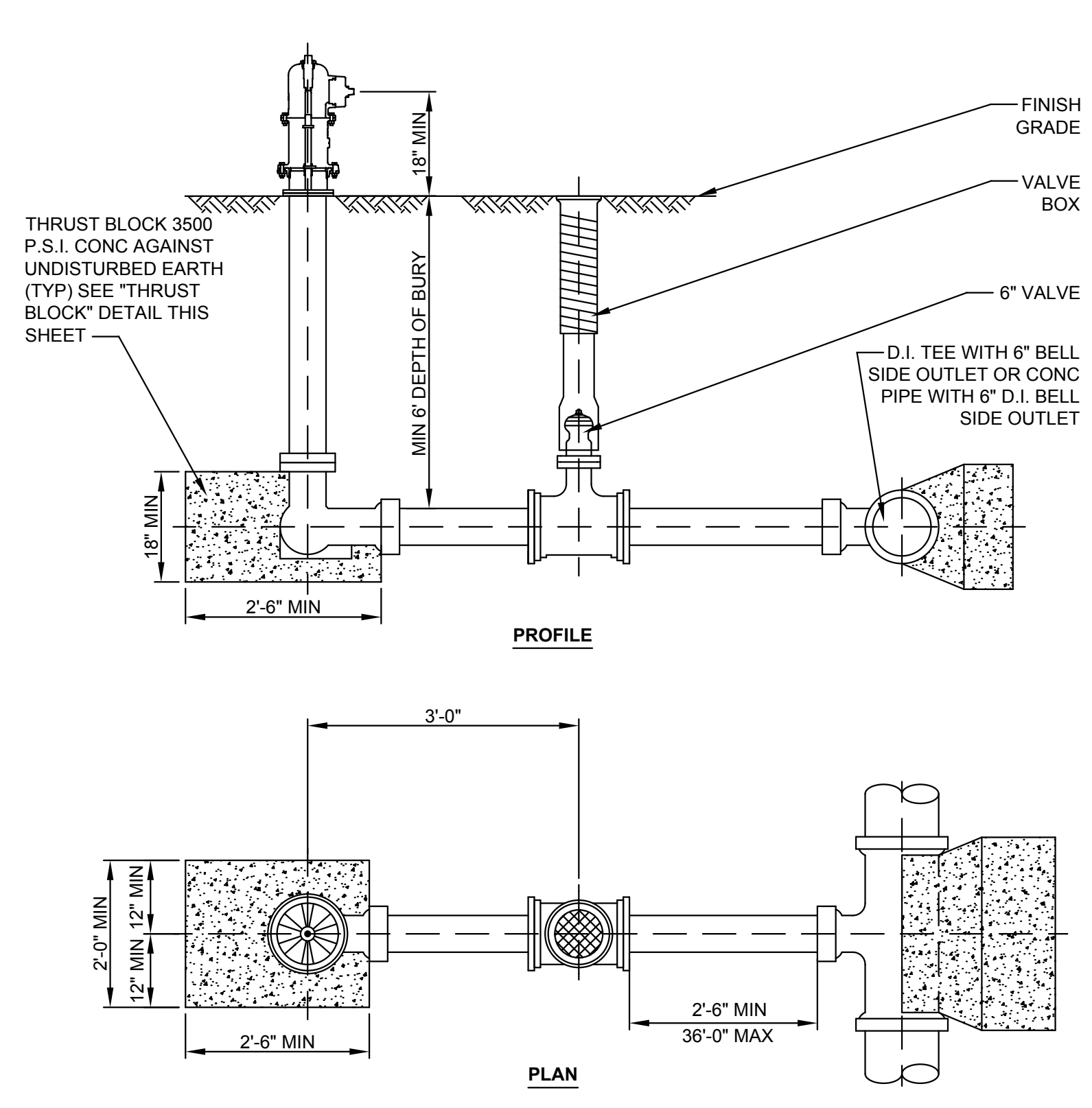
SPECIFICATIONS FOR 2" WATER SERVICE
 THE BUILDER OR OWNER WILL BE REQUIRED TO PURCHASE SPECIFIED MATERIALS SHOWN BELOW:
 1. FOR AN 8-INCH MAIN A 8" X 2" DOUBLE-STRAP CLAMP (#H-16130)
 2. FOR AN 8-INCH MAIN A 6" X 2" DOUBLE-STRAP CLAMP (#H-16126)
 3. 2" CORP STOP (#H-15000)
 4. 2" CORP STOP (#H-15204 IF OUT - #H15201)
 5. 2" CURB BOX (#H-10386) WITH PART NUMBER 580562 □ 4" ROD
 6. 3 PART UNION (#H-15400)
 7. TYPE "K" COPPER PIPE
 THE WATER TAP MUST BE MADE UNDER TOWNSHIP SUPERVISION.
 CANTON TOWNSHIP REQUIRES 48 HOURS NOTIFICATION PRIOR TO ALL TAP INSTALLATIONS. CALL THE PUBLIC WORKS ENGINEERING DIVISION DURING NORMAL BUSINESS HOURS AT (734) 394-5150 TO SCHEDULE INSPECTION.
 A MINIMUM OF 48 HOUR NOTIFICATION IS REQUIRED FOR METER PICK UP. WATER TEMPLATES AND WATER METERS MAY BE PICKED UP AT THE TOWNSHIP DPW BUILDING.
 LIQUID TEFLON OR PIPE DOPE IS ONLY TO BE USED ON THE CORPORATION STOP AND DOUBLE-STRAP CLAMP CONNECTION.
 MUELLER PRODUCTS MAY BE OBTAINED FROM:
 National WaterWorks 1-(734) 480-2211
 2820 East Michigan Ave. 1-(734) 480-2233 □ Fax
 Ypsilanti, MI 48198 www.natllw.com
 EAST JORDAN PRODUCTS MAY BE OBTAINED FROM:
 East Jordan Iron Works, Inc. 1-(800) 231-3549
 13000 North End Ave. 1-(248) 546-4612 □ Fax
 Oak Park, MI 48237 www.ejiw.com

FIRE HYDRANT SPECIFICATIONS
 1. INSTALL ADDITIONAL FITTINGS AND SPIGOT PIPE AS NECESSARY BETWEEN WATER MAIN & VALVE BOX TO ADJUST FOR PROPER LOCATION AND GRADE OF HYDRANT.
 2. VERTICAL REACTION BLOCKING WILL BE REQUIRED ON ALL VERTICAL HYDRANT BENDS IN EXCESS OF 11 1/4 DEGREES.
 3. WHERE HYDRANTS ARE INSTALLED ON EXISTING MAINS, PLACE CONCRETE BRICK OR BLOCK TO UNDISTURBED EARTH AND ENCASE WITH CONCRETE AND/OR USE RESTRAINING GLANDS.
 4. ALL BOLTS TO BE "COR-BLUE T-TYPE".
 5. FIRE HYDRANTS ARE TO BE RED EAST JORDAN IRON WORKS 5BR-250 TRAFFIC MODEL BREAKAWAY HYDRANTS WITH MECHANICAL FITTINGS.
 6. HYDRANTS ARE TO BE PLACED AT THE FOLLOWING LOCATIONS UNLESS OTHERWISE NOTED ON THE PLANS:
 A. 40-FEET OFF OF THE SECTION LINE ON SECTION LINE ROADS
 B. 33-FEET OFF OF 1/4 LINES ON 1/4 LINE ROADS
 C. 22-FEET OFF OF CENTER LINE ON RESIDENTIAL STREETS
 7. HYDRANTS ARE TO BE INSTALLED PLUMB AND HAVE THEIR PUMP NOZZLES FACING THE ROAD OR AS DIRECTED BY THE CANTON TOWNSHIP ENGINEER.
 8. HYDRANT LEADS GREATER THAN 10-FEET IN LENGTH FROM THE TRANSMISSION LINE SHALL BE CONSTRUCTED WITH CLASS 54 8-INCH DUCTILE IRON PIPE.
 9. NO HYDRANT SHALL BE PLACED WITHIN 10-FEET OF ANY ROADWAY INTERSECTION OR DRIVEWAY.

SPECIFICATIONS FOR 2" WATER SERVICE AND FIRE HYDRANTS



FIRE HYDRANT ASSEMBLY - CLOSE COUPLE TYPE
(ONLY ALLOWED WITH TOWNSHIP APPROVAL)



FIRE HYDRANT ASSEMBLY - "T" TYPE



CHARTER TOWNSHIP OF CANTON
 1150 CANTON CENTER S.
 CANTON, MI 48188-1699
 PH: 734-394-5150 / FAX: 734-394-5183

DATE:	REVISIONS:	BY:
5/16/2007	SUBMITTED FOR DEQ REVIEW	CJL
5/31/2007	PUBLIC RELEASE	CJL

WATER MAIN STANDARD DETAILS

DATE: 5/31/2007
 SCALE: NONE
 SHEET: WM-2