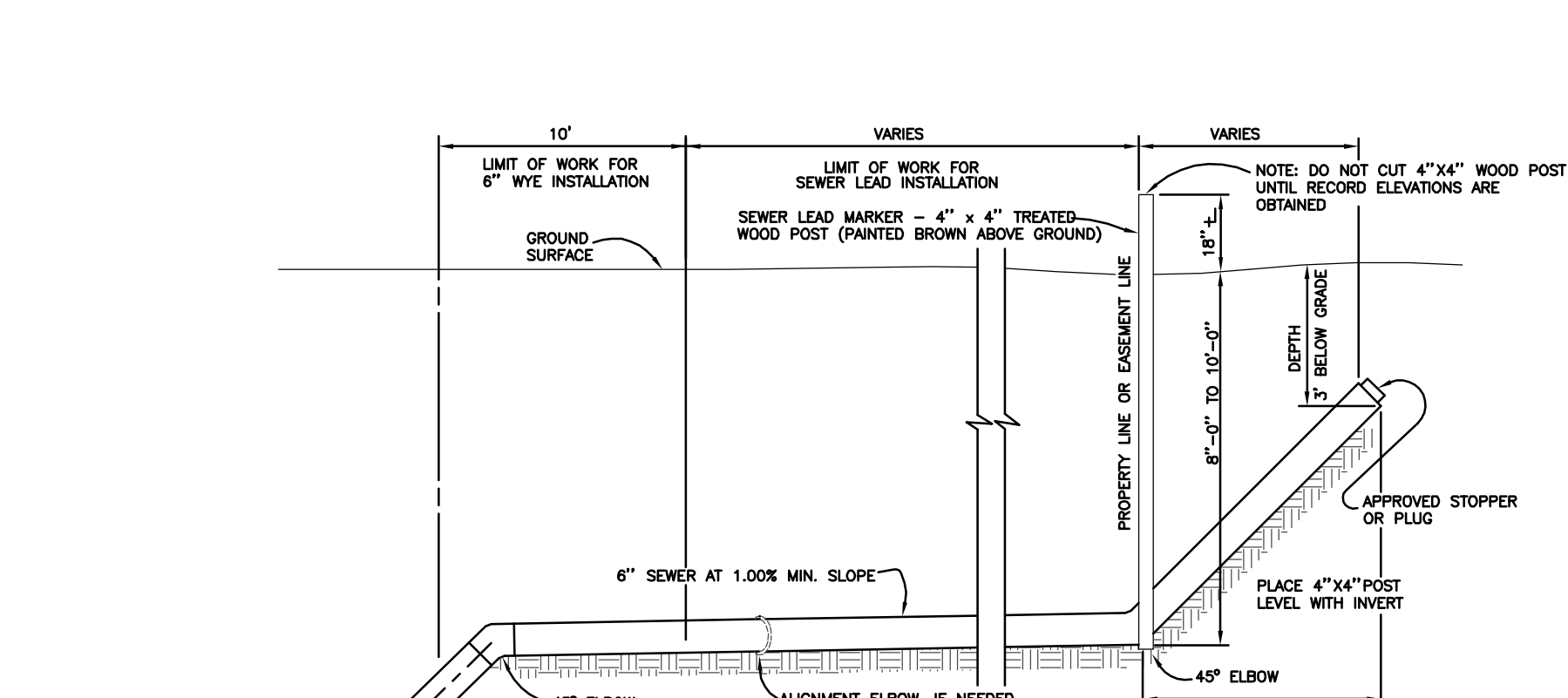


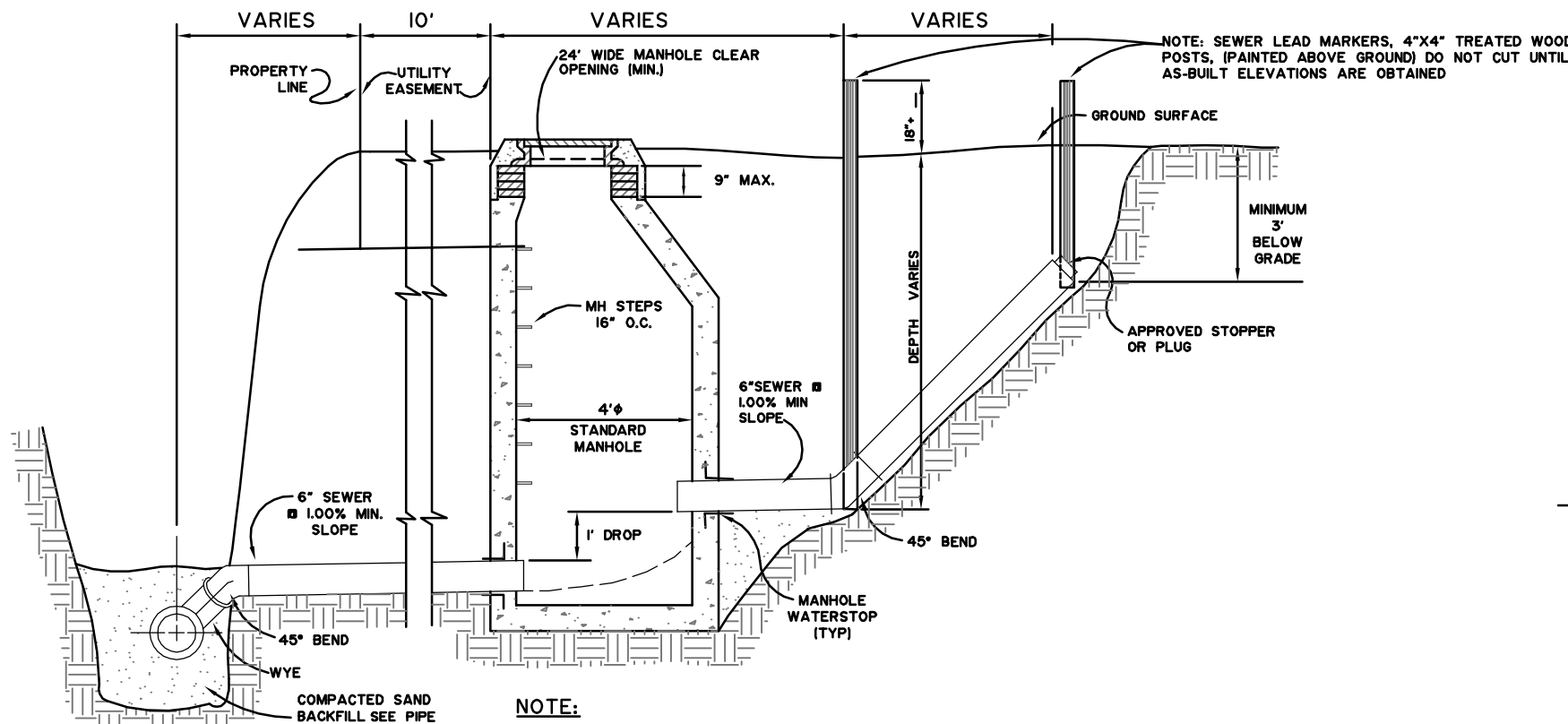
**WYE AND SEWER LEAD INSTALLATION DETAIL**

NO SCALE



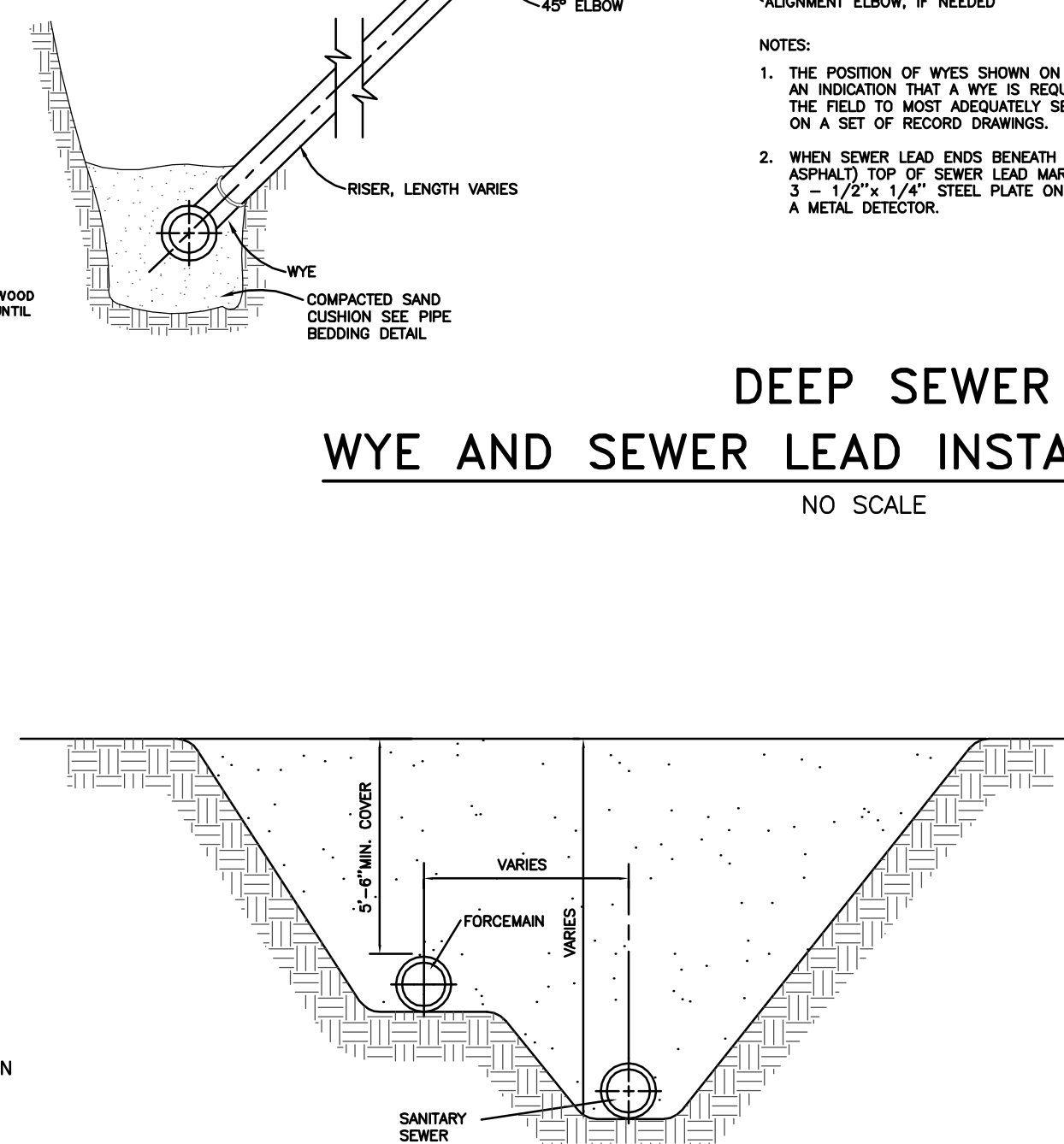
**DEEP SEWER WYE AND SEWER LEAD INSTALLATION DETAIL**

NO SCALE



**STRIAL/COMMERCIAL IPP SURVEILLANCE MANHOLE DETAIL**

NO SCALE

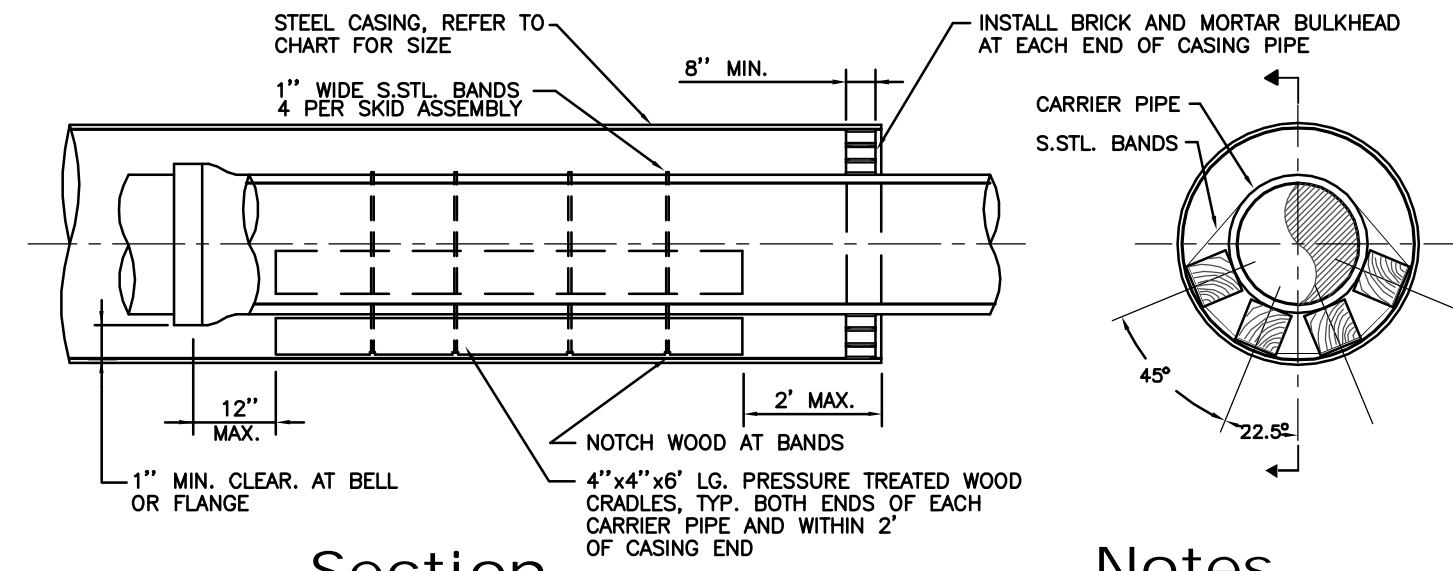


**2 PIPE TRENCH DETAIL**

NO SCALE

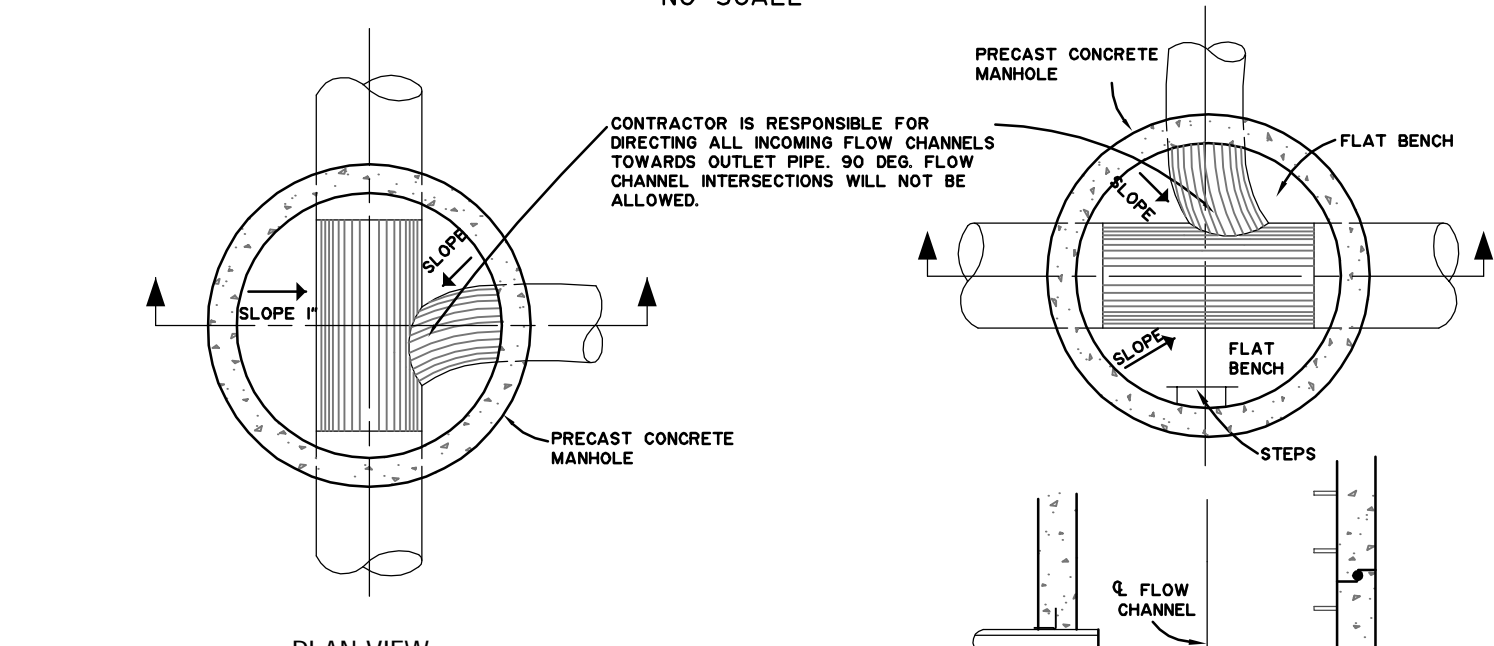
**6" OR 8" CLEANOUT DETAIL**

NO SCALE



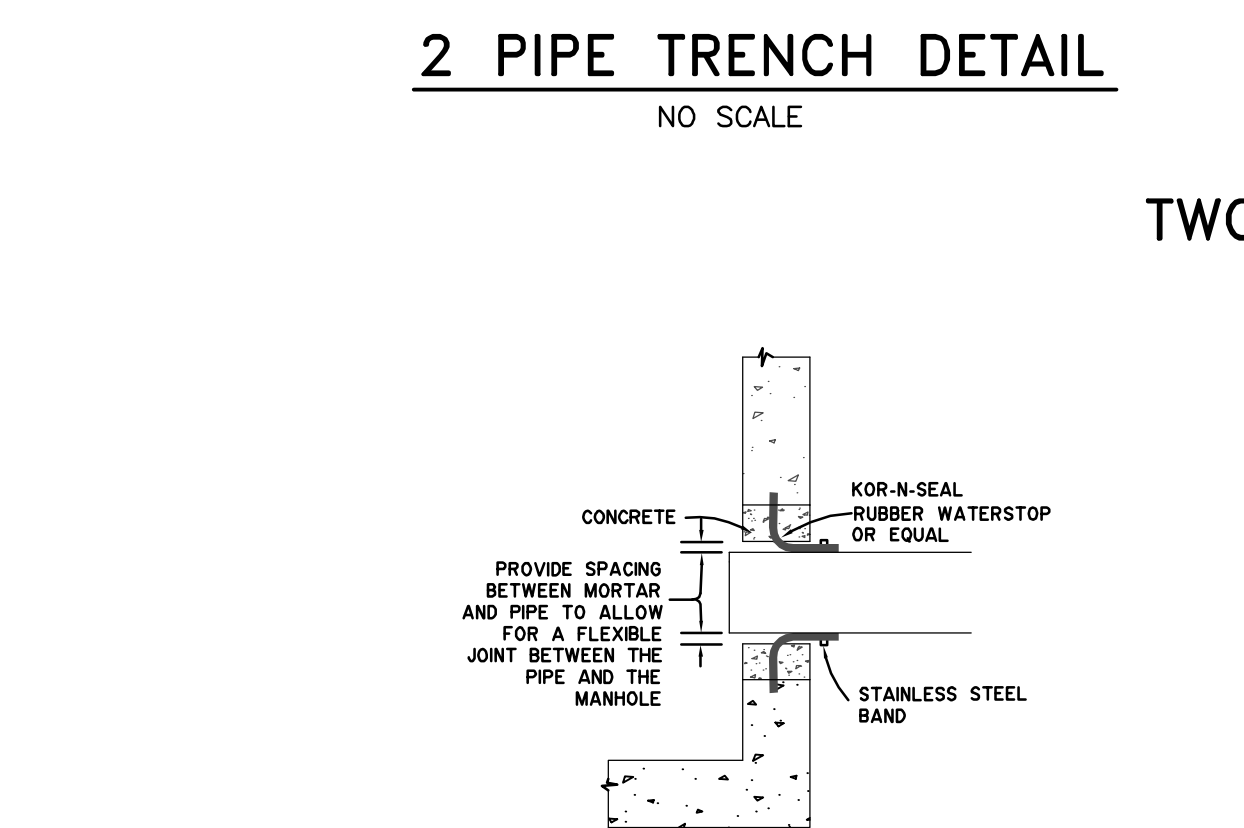
**CASING/CARRIER PIPE DETAIL**

NO SCALE



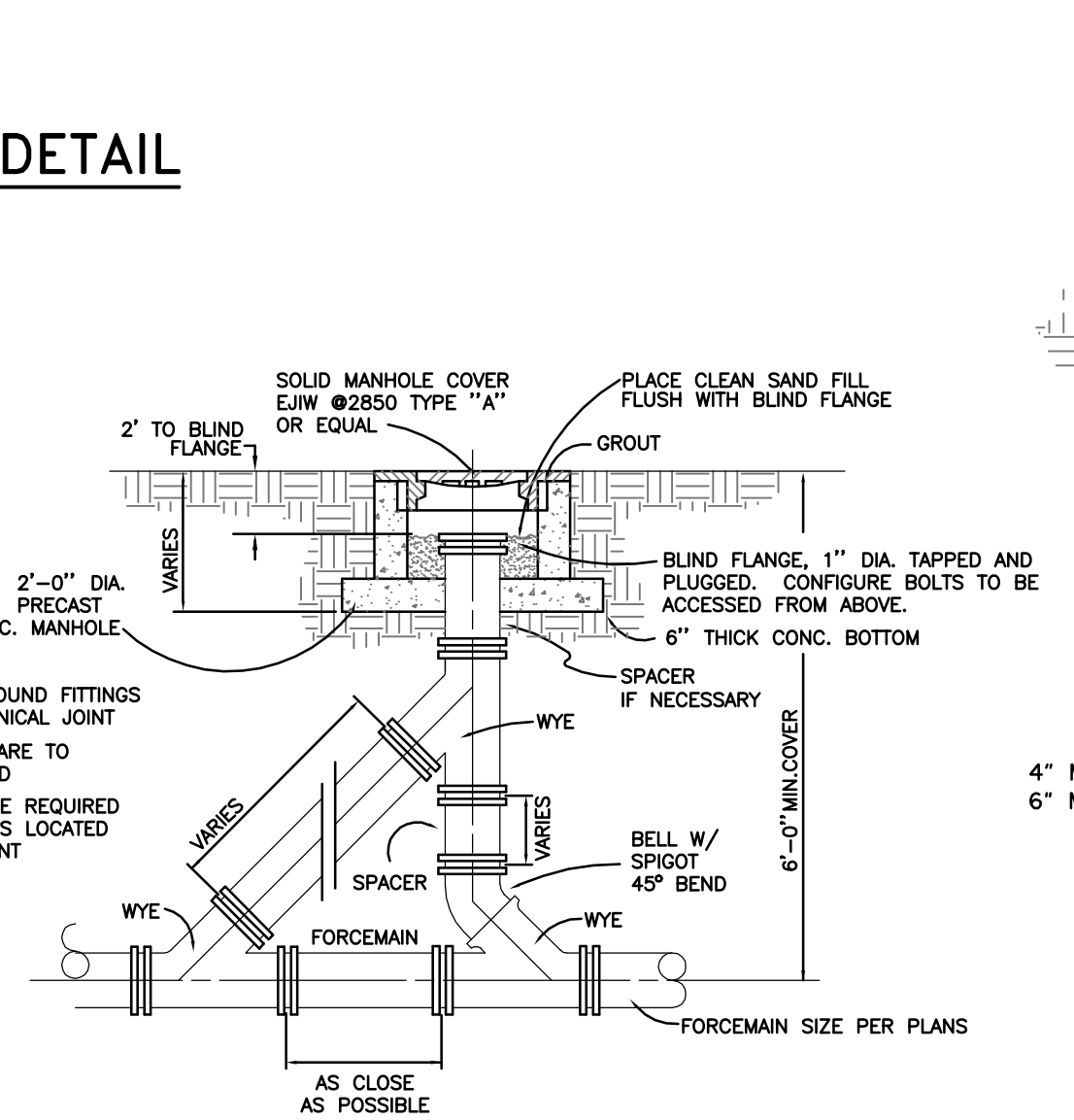
**DETAIL - STANDARD MANHOLE**

NO SCALE



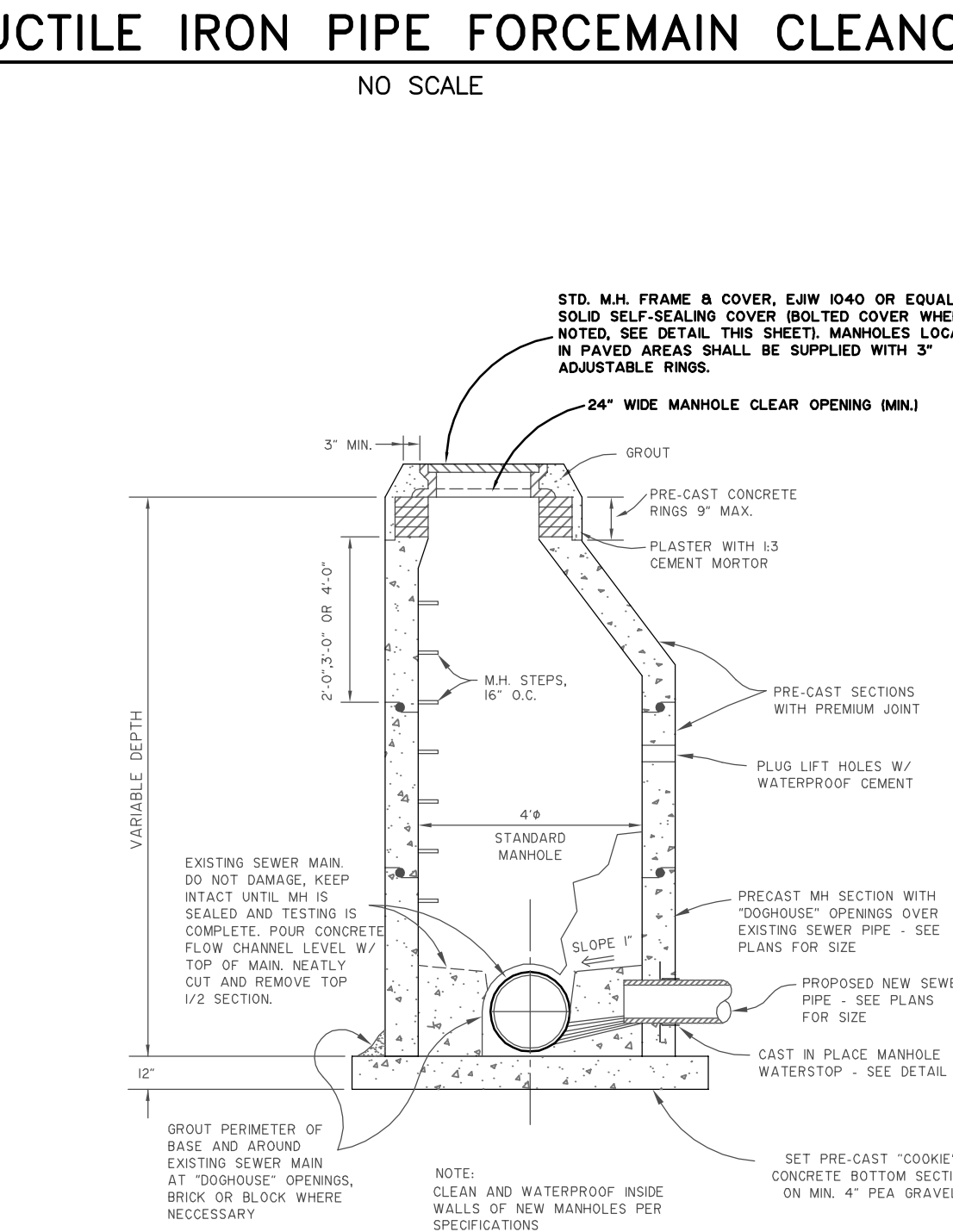
**MANHOLE/WETWELL WATERSTOP DETAIL**

NO SCALE



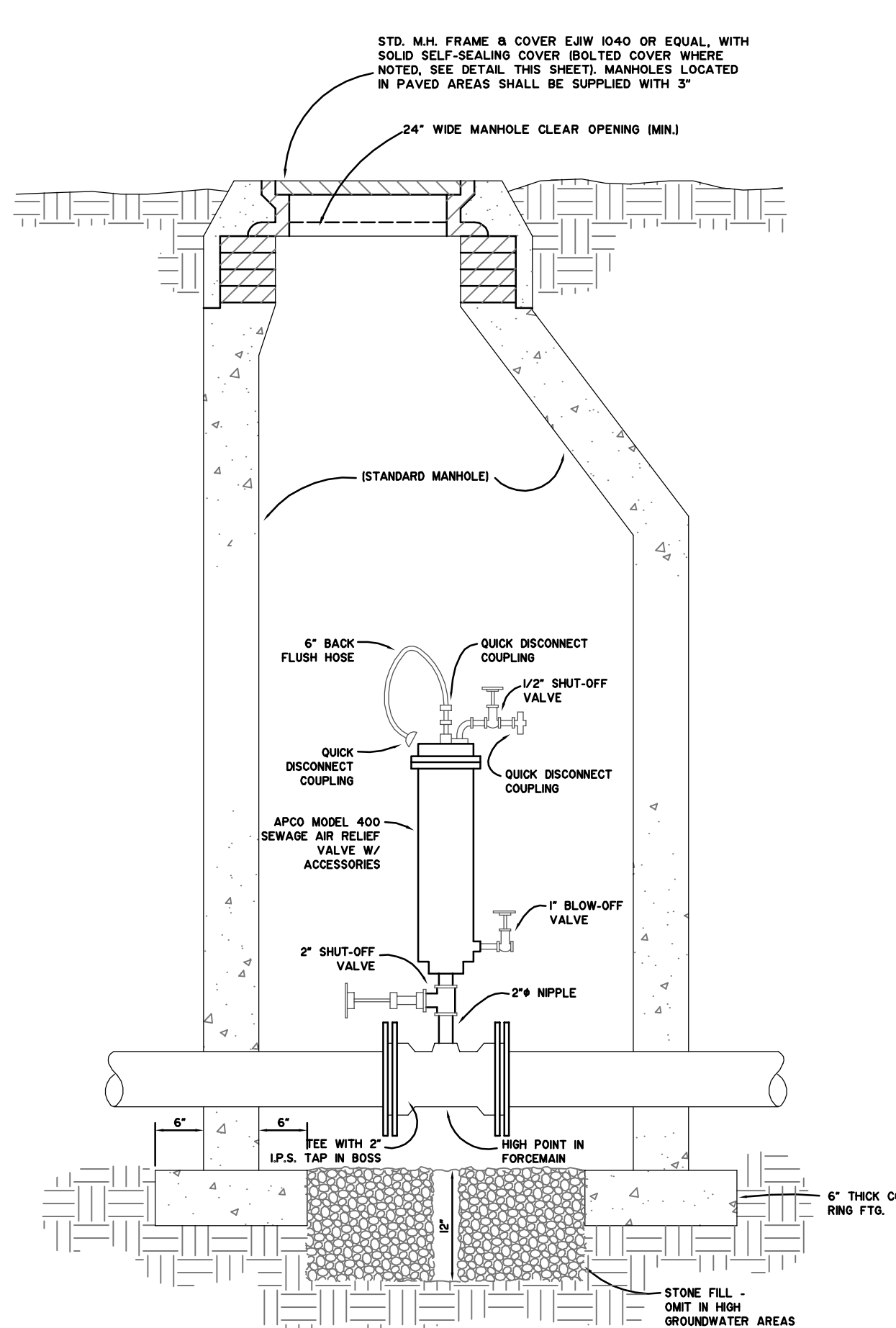
**TWO WAY DUCTILE IRON PIPE FORCEMAIN CLEANOUT DETAIL**

NO SCALE



**MANHOLE OVER EXISTING SEWER DETAIL**

NO SCALE



**FORCEMAIN AIRVALVE DETAIL**

NO SCALE

NOTE:  
ALL BACKFILL MATERIAL SHALL CONFORM TO ASTM D2321 (FLEXIBLE PIPE) OR ASTM C12 (RIGID PIPE) STANDARDS

NOTE:  
SANITARY SEWER TRENCHES NEED TO PROVIDE A MINIMUM WIDTH OF PIPE DIAMETER PLUS 16 INCHES FOR 8 INCH TO 18 INCH DIAMETER PLASTIC/FLEXIBLE PIPE MATERIALS. FOR 18 INCH AND LARGER PIPE DIAMETERS, THE MINIMUM TRENCH WIDTH IS 1.25 TIMES THE PIPE DIAMETER PLUS 12 INCHES FOR PLASTIC/FLEXIBLE PIPE MATERIALS.

CARRIER PIPE NOMINAL SIZE	FORCE MAIN		GRAVITY SEWER	
	CASING PIPE SIZE - ROAD MIN. O.D.	MIN. WALL THK.	CASING PIPE SIZE - ROAD MIN. O.D.	MIN. WALL THK.
6"	18"	0.250"	20"	0.250"
8"	18"	0.250"	22"	0.250"
10"	20"	0.250"	26"	0.312"
12"	24"	0.250"	28"	0.312"
15"	24"	0.250"	30"	0.312"

1. 14" AND LARGER CARRIER PIPES REQUIRE 4-4" x 4" WOOD SKIDS PER SET, SPACED AS SHOWN ABOVE.
2. 12" AND SMALLER CARRIER PIPES REQUIRE ONLY 2-4" x 4" WOOD SKIDS PER SET, SPACED 30" AWAY FROM THE BOTTOM OF THE CARRIER.
3. SKID SIZES MAY VARY WITH LARGER SIZE.
4. MINIMUM CASING SIZE BASED ON STANDARD PUSH-ON JOINT PIPE. CONTRACTOR SHALL VERIFY MINIMUM CLEARANCE REQUIREMENTS FOR THE TYPE OF CARRIER PIPE SPECIFIED AND INSTALL LARGER THAN MINIMUM CASING SIZE FOR REQUIRED CLEARANCE, AT NO ADDITIONAL COST.