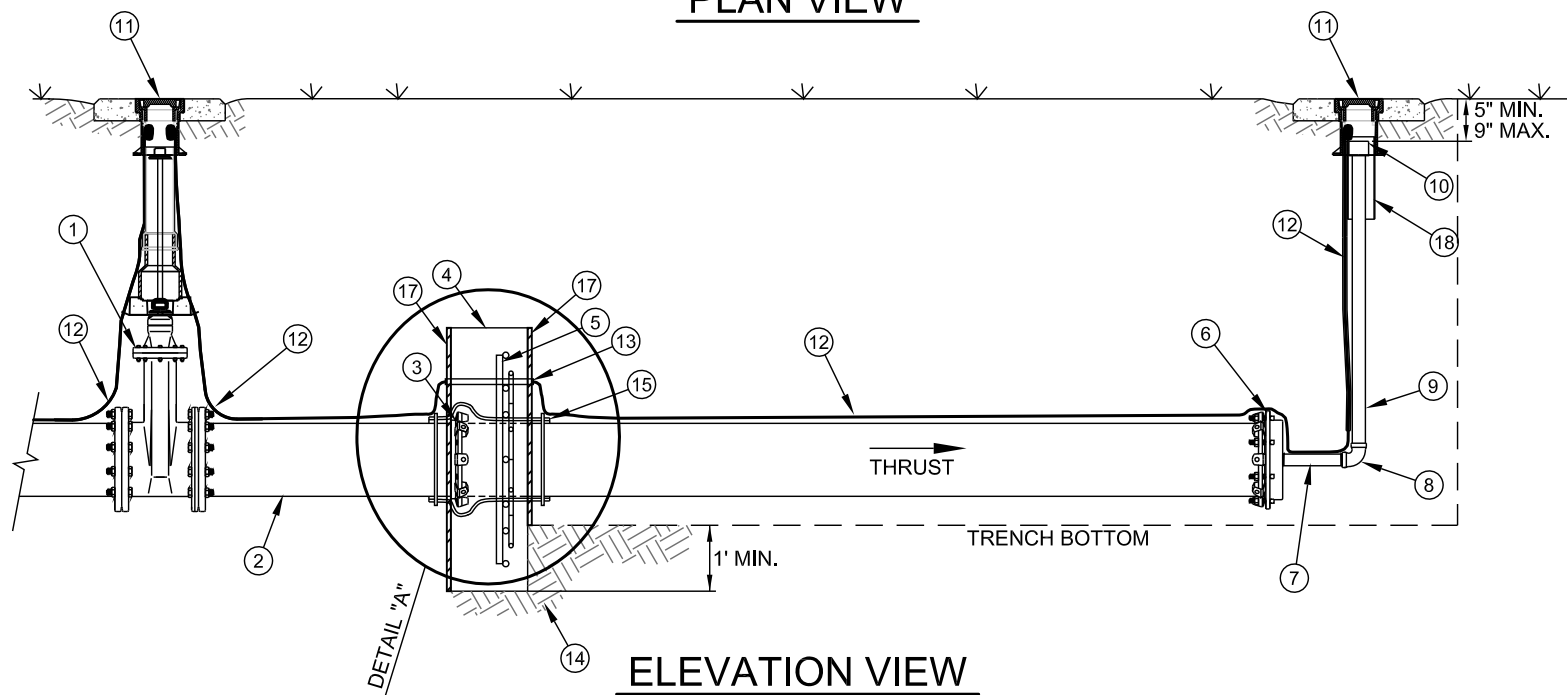
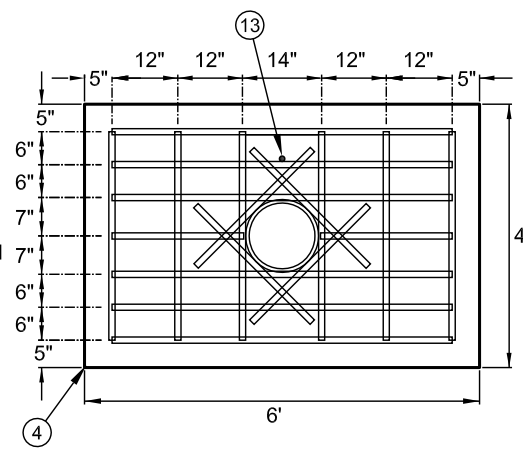


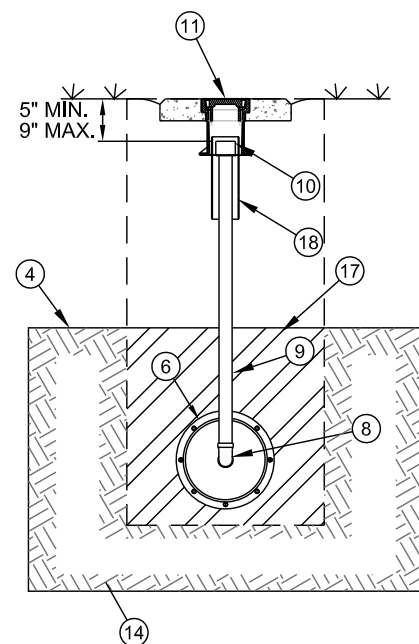
PLAN VIEW



ELEVATION VIEW



REBAR DETAIL



END VIEW

NO. DESCRIPTION

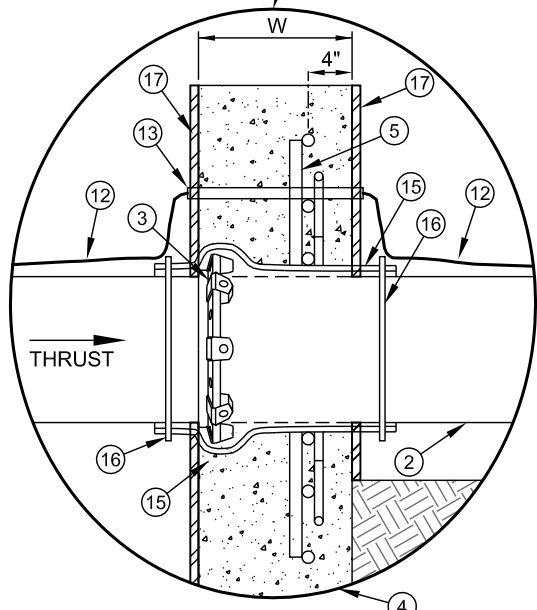
- 1 END OF LINE GATE VALVE (MJ X MJ)
- 2 DIP - (PE x PE) - REMOVE BELL - LENGTH = 17 FT~ 19 FT
- 3 WEDGE ACTION THRUST RESTRAINT GLAND
- 4 CONCRETE WALL BLOCK (F'c = 3600 PSI MIN) 6 FT x 4 FT x WIDTH (W)
- 5 REBARS - GRADE 60 PER ASTM A615 - SEE REBAR SCHEDULES
- 6 MJ CAP - WITH WEDGE ACTION RESTRAINT GLAND, TAP 2" THREADED OUTLET (FNPT)
- 7 2" RED BRASS NIPPLE SCH 40 (MNPT x MNPT) - LENGTH = 12 INCH
- 8 2" RED BRASS 90° BEND (FNPT x FNPT)
- 9 2" RED BRASS NIPPLE SCH 40 (MNPT x MNPT) - LENGTH AS REQUIRED
- 10 2" GALVANIZED MALLEABLE IRON COUPLING (FNPT x FNPT)
- 11 STANDARD VALVE BOX ASSEMBLY - SEE DETAIL
- 12 AWG #12 GAUGE COPPER TRACER WIRE - WITH BLUE INSULATION (30MIL HDPE) TERMINATE WITH 24-INCH EXCESS WIRE (COILED) IN VALVE BOX (TYP.)
- 13 1" SCH 40 PVC ELECTRICAL CONDUIT - LENGTH AS REQUIRED
- 14 UNDISTURBED SOIL
- 15 HIGH DENSITY CROSS LAMINATED POLYETHYLENE FILM TUBE (HDCLPE) AWWA C105 - 4 MILS EACH x 2 LAYER - 8 MILS TOTAL
- 16 HDPE ADHESIVE TAPE OR HDPE ZIP LOCK TIES
- 17 PLYWOOD FORM
- 18 5" CAST IRON SOIL PIPE (L = 15") OR VALVE BOX BOTTOM SECTION

NOTES:

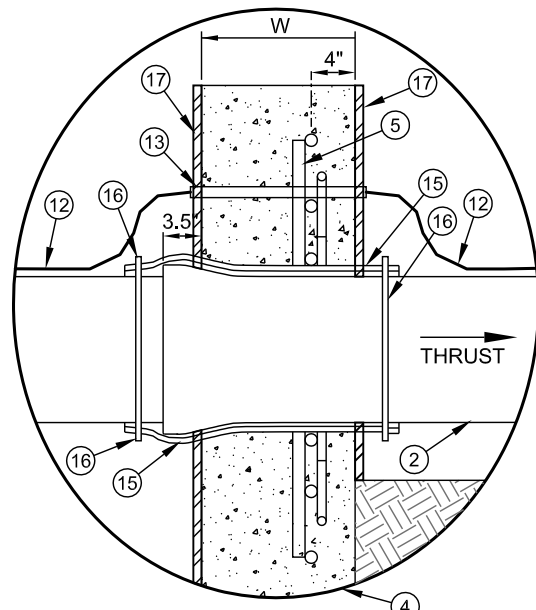
- A. 12 - INCH MAINS REQUIRE THIS INSTALLATION.
- B. 6 - INCH THROUGH 10 - INCH MAINS REQUIRE THIS INSTALLATION WHEN SOFT SOILS ARE ENCOUNTERED, OR WHEN REQUIRED BY THE ENGINEER.
- C. WHEN DIRECTED BY THE ENGINEER, THE CONCRETE WALL BLOCK SIZE MAY BE ADJUSTED, BASED ON ACTUAL SOIL CLASSIFICATION AND PIPE DIAMETER.
- D. FULLY RESTRAINED JOINT PIPE MAY BE USED IN LIEU OF THIS DETAIL - SEE RESTRAINED JOINT PIPE DETAILS.
- E. ALTERNATE DETAIL "A" (USING A REVERSED BELL) MAY BE USED IN LIEU OF DETAIL "A".

NO. ALTERNATE DESCRIPTION

- WHEN USING 2-INCH HDPE (IPS) BLOW-OFF PIPE WITH STAINLESS STEEL, BRASS OR BRONZE MNPT ENDS, USE THE FOLLOWING PRODUCTS:
- 7 2" SDR 9 HDPE (POLY) - IPS PIPE (MNPT x MNPT) - LENGTH AS REQUIRED - 12 - INCH MINIMUM.
 - 9 2" SDR 9 HDPE (POLY) - IPS PIPE (MNPT x MNPT) - LENGTH AS REQUIRED.



DETAIL "A"

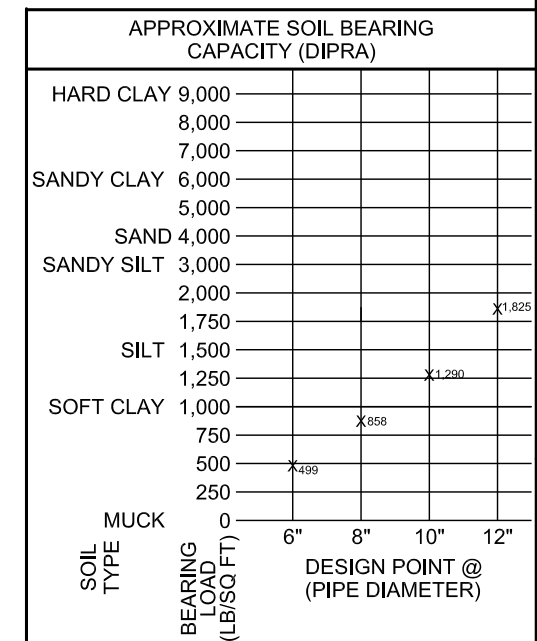


DETAIL "A" (ALT)

PIPE DIAMETER (INCHES)	TOTAL THRUST (POUNDS)	UNDISTURBED SOIL BEARING AREA SQUARE FEET	APPROX. SOIL PRESSURE BEARING LOAD (LB/SQ FT)	W (WIDTH) (MINIMUM) INCHES	CONCRETE VOLUME (APPROXIMATE)	
					FT ³	CY
6	7,478	15	499	10	20	0.74
8	12,866	15	858	12	24	0.89
10	19,354	15	1,290	12	24	0.89
12	27,370	15	1,825	14	28	1.04

REBAR SCHEDULE		
TYPE	LENGTH (INCHES)	NUMBER REQUIRED
VERTICAL	38	6
HORIZONTAL	62	6
HORIZONTAL	24	2
DIAGONAL	30	4

REBAR DIAMETER SCHEDULE			
PIPE DIAMETER	BAR SIZE	TOTAL REBAR LENGTH (FT)	TOTAL REBAR WEIGHT (LB)
6"	#6	64	96
8"	#7	64	131
10"	#8	64	171
12"	#9	64	218



STANDARD NO. DD
 VERSION NO. 1.0
 VERSION DATE 8.23.2011
DEAD END THRUST - WALL BLOCKING AND 2-INCH BLOW-OFF ASSEMBLY 6-INCH THROUGH 12-INCH MAINS
 CHARLOTTE-MECKLENBURG UTILITIES
 STANDARD DETAILS
 WATER
 CHARLOTTE