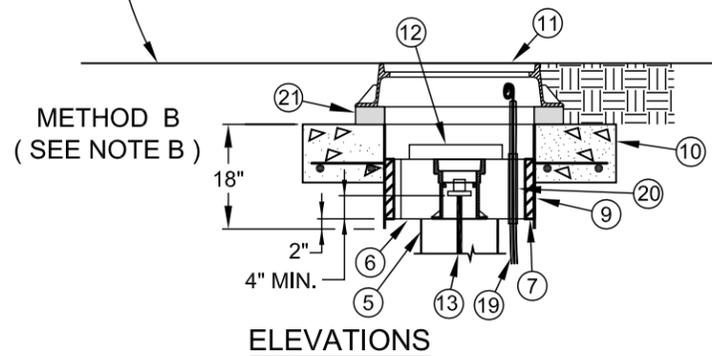
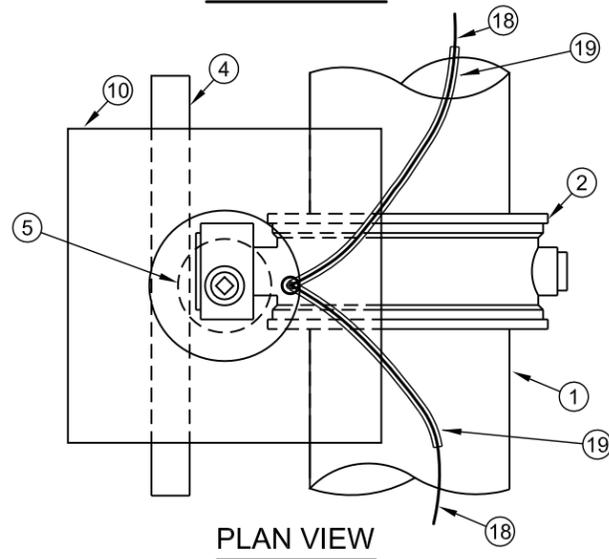


FINISHED GRADE  
METHOD A  
(SEE NOTE A)

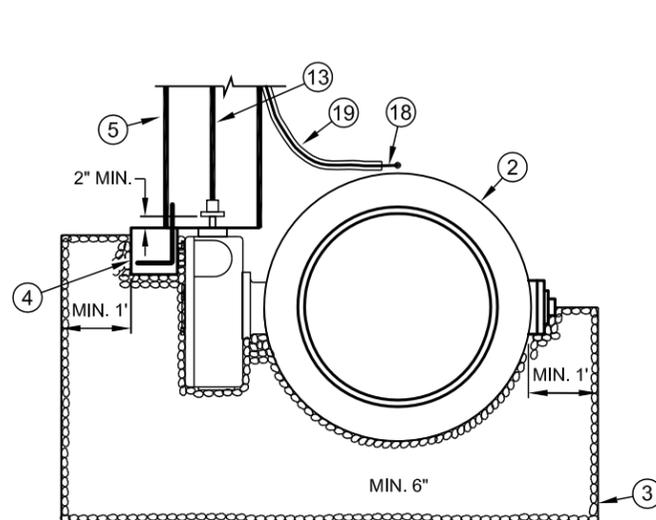


METHOD B  
(SEE NOTE B)

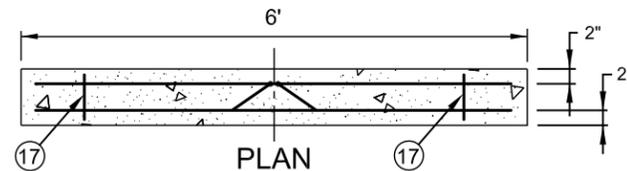
ELEVATIONS



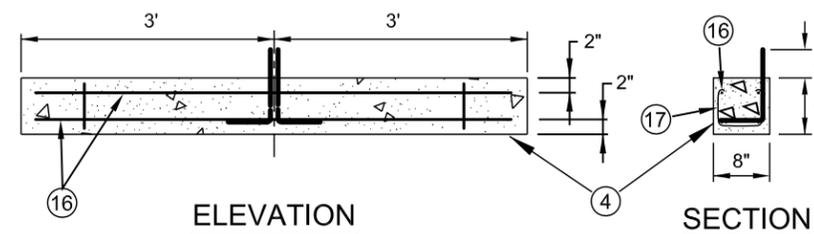
PLAN VIEW



PROFILE

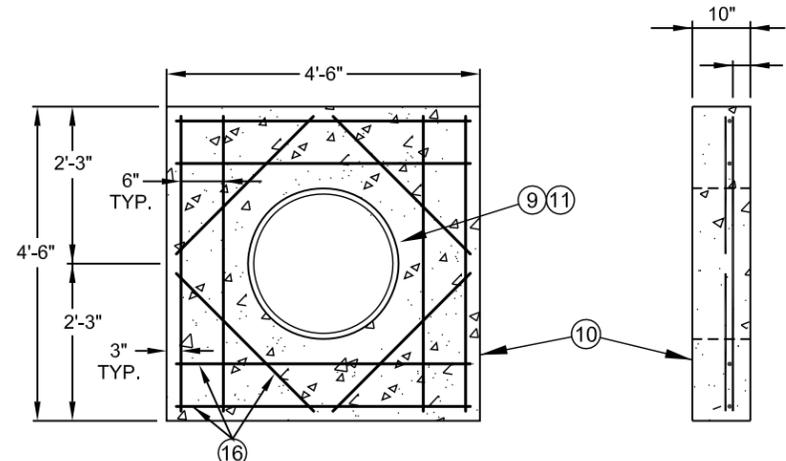


PLAN  
PRECAST CONCRETE BEAM



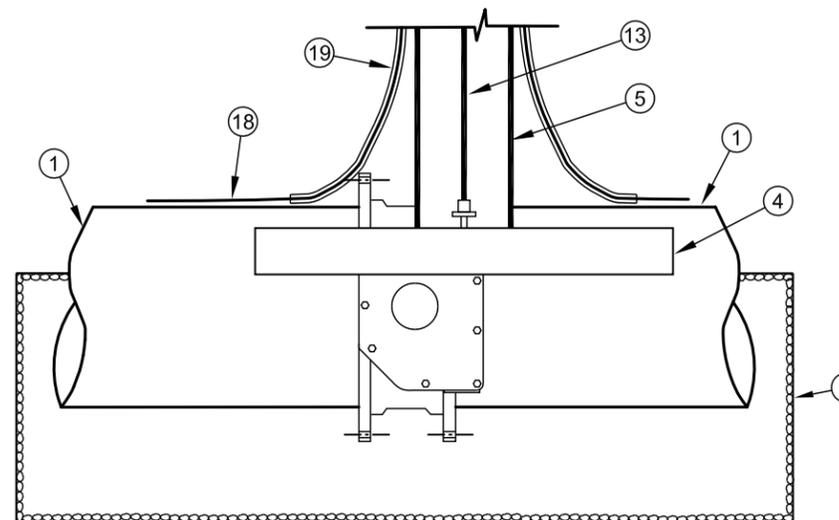
ELEVATION  
PRECAST CONCRETE BEAM

SECTION

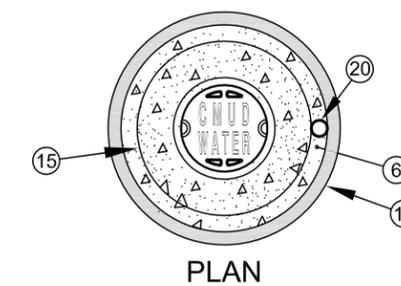


PLAN  
PRECAST CONCRETE PAD

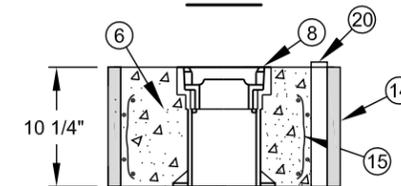
SECTION



SIDE



PLAN



SECTION  
PRECAST CONCRETE FLOOR

**NO. DESCRIPTION**

1. WATER MAIN.
2. BUTTERFLY VALVE.
3. WASHED # 57 OR # 67 STONE - MINIMUM 6 FEET EACH SIDE OF VALVE.
4. PRECAST CONCRETE BEAM. ( REINFORCED )
5. 12-INCH ( MIN. ) DIP ( OR C900 PVC DR18 ) RISER PIPE 20 INCH MAXIMUM.
6. PRECAST CONCRETE FLOOR. ( REINFORCED )
7. 1/2 - INCH EXPANSION MATERIAL ( CONSTRUCTION JOINT )
8. STANDARD VALVE BOX TOP SECTION ( W/COVER ), CAST IN CONCRETE FLOOR # 6.
9. 24" PVC PIPE - C905 - DR18, OR DIP - CAST IN.
10. PRECAST CONCRETE PAD. ( REINFORCED )
11. FRAME AND COVER - SEE DETAILS.
12. VALVE LOCKOUT ASSEMBLY - SEE DETAILS.
13. EXTENSION STEM ASSEMBLY - SEE DETAILS.
14. 20" PVC PIPE - C905 - DR18, DR21, OR DR25.
15. WELDED WIRE FABRIC ( WWF ) - 6x6, W2.9/W2.9, 16" DIA., OR 2 EACH # 3 REBARS - 16" DIA.
16. # 4 REBARS - AS SHOWN.
17. # 2 OR # 3 REBARS - STIRRUPS - AS SHOWN.
18. AWG #12 GAUGE COPPER TRACER WIRE ( THWN ) WITH BLUE INSULATION, TERMINATE WITH 24 INCH EXCESS WIRE ( COILED ) IN VALVE BOX ( TYP. )
19. 1/4" OR 3/8" ID CONDUIT - SDR 9 PEX TUBING - ASTM F876.
20. 3/4" DIA. x 12" SCH 40 PVC CONDUIT.
21. GRADE / SLOPE ADJUSTMENT RING - PRECAST CONCRETE OR RECYCLED RUBBER.

**NOTES:**

- A. METHOD A SHALL BE REQUIRED IN WATER MAIN EASEMENTS, OR WHEN VALVE IS BACK OF ROAD DITCH.
- B. METHOD B SHALL BE REQUIRED WHEN VALVE IS IN MAINTAINED LAWNS, ON ROAD SHOULDER, IN PAVEMENT DRIVEWAYS OR SIDEWALKS.
- C. DIAMETER OF RISER MAY VARY AS REQUIRED BY VALVE ACTUATOR, AS APPROVED BY CMUD.
- D. FOR 24" AND SMALLER VALVES - WHEN OPERATING NUT DEPTH EXCEEDS 3'-0" BELOW FINISHED GRADE, PROVIDE EXTENSION STEM WITH STD 2" NUT IN TOP SECTION AS SHOWN. SEE EXTENSION STEM DETAIL.
- E. FOR 30" AND LARGER VALVES , EXTENSION STEM REQUIRED REGARDLESS OF DEPTH. SEE EXTENSION STEM DETAIL.
- F. PROVIDE 2" CLEARANCE IN ALL DIRECTIONS BETWEEN RISER AND VALVE/ACTUATOR. ( SEE NOTE C )

**DESIGN REQUIREMENTS:**

- a. CONCRETE - f'c = 4000 PSI ( MIN. )
- b. REBARS - GRADE 60, ASTM A 615
- c. WELDED WIRE FABRIC - ASTM A 185, A 82

NO SCALE

STANDARD NO. II	VERSION DATE 12.22.2010
VERSION NO. V1.0	
<b>VALVE BOX ASSEMBLY INSTALLATION</b>	
<b>BUTTERFLY VALVES 16 - INCH AND LARGER MAINS</b>	
CHARLOTTE-MECKLENBURG UTILITIES	STANDARD DETAILS
WATER	