

**NOTES:**

- A. ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND.
- B. ALL PIPE SHALL BE RESTRAINED FROM TAP TO PROPERTY LINE VALVE.
- C. VAULT SHALL BE RATED FOR NCDOT HS-20 LOADING - SUBMIT SHOP DRAWINGS / P.E. SEALED FOR REVIEW.
- D. ALL CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH.
- E. DESIGN SHALL CONFORM TO ASTM C858 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE".
- F. STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857.
- G. REBARS SHALL BE GRADE 60 PER ASTM A615.
- H. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- I. DIAGONAL REINFORCING SHALL BE ADDED AT ALL OPENINGS.
- J. PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE CONNECTERS (MANHOLE BOOTS) OR WITH 4-INCHES OF BRICK & MORTAR (AND 1/2 INCH THICK CONSTRUCTION EXPANSION MATERIAL).
- K. FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK, GROUND SHALL SLOPE AWAY FROM VAULT.
- L. ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.
- M. PRECAST VAULT COMPONENTS SHALL HAVE MARKINGS PER ASTM C478 REQUIREMENTS.

**NO. DESCRIPTION:**

1. EXISTING OR PROPOSED WATER MAIN.
2. TAPPING SADDLE AND 1 1/2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT (CC TAPER THREAD X CTS COMPRESSION).
3. STANDARD VALVE BOX ASSEMBLY (TYP) - ALL VALVES (OMIT AT CORPORATION STOP ON SHORT SIDE SERVICE OR WHEN IN THE PAVEMENT).
4. 1 1/2" TYPE K COPPER TUBING.
5. 1 1/2" BALL VALVE (CTS COMPRESSION X FNPT).
6. 1 1/2" RED BRASS PIPE NIPPLE (L = 30" OR 36").
7. 1 1/2" BRASS METER SETTER ASSEMBLY - FORD #VB-76-95311-05, MUELLER #098B 242343, CAMBRIDGE #6020-718F6F6-UUBS OR MCDONALD #720B618WTF, NO SOLDER JOINTS PERMITTED.
8. 1" SCH 40 RED BRASS NIPPLE (L = 18") X 2 EACH.
9. 1 1/2" WATER METER ASSEMBLY WITH AMR TRANSMITTER (BY CONTRACTOR).
10. BYPASS BALL VALVE WITH LOCK WINGS - LOCK VALVE IN CLOSED POSITION (SERIAL NUMBERED STUD LOCK - FURNISHED BY CLTW).
11. 1 1/2" TYPE K COPPER TUBING TAIL PIECE - L = 24" MIN. - BASS OR PVC TEMP. CAP.
12. PRECAST CONCRETE SERVICE VAULT (36" X 24" X 31").
13. 6" DIAMETER SUMP HOLE.
14. 6" COMPACTED #57 WASHED STONE.
15. MINIMUM OF (3) STANDARD SOLID CONCRETE BRICK COURSES UNDER ACCESS DOOR FRAME, MAXIMUM 2'.
16. 24" X 36" ACCESS DOOR - SEE STANDARD DETAIL.
17. AMR TRANSMITTER.
18. 3/8" DIAMETER GALV. STEEL EYE BOLT (ADHESIVE ANCHOR) - TYPICAL.
19. AWG #12 GAUGE SOLID COPPER HDPE INSTALLATION TRACER WIRE - WITH 30 MILS BLUE INSULATION TERMINATE WITH 24" EXCESS WIRE (COILED) AT EYE BOLT AND VALVE BOX (TYP).
20. CAST IN PLACE CONCRETE SIDEWALK - BRICK WORK SHALL NOT EXTEND TO SURFACE, ACCESS DOOR SHALL REST ON SIDEWALK.
21. ATTACH ENGRAVED LABEL, WITH PREMISE NUMBER, TO UNDERSIDE OF DOOR, NEAR THE LIFTING HANDLE.

**NO. ALTERNATE DESCRIPTION:**

- WHEN USING SDR9 HDPE (IPS) WITH STAINLESS STEEL, BRASS, OR BRONZE MNPT ENDS, USE THE FOLLOWING PRODUCTS:
2. 1 1/2" BALL CORPORATION STOP (CC TAPER THREAD X FNPT).
  4. 1 1/2" SDR9 HDPE (POLY) - IPS PIPE (MNPT X MNPT).
  5. 1 1/2" BALL VALVE (FNPT X FNPT).
  11. 1 1/2" SDR9 HDPE (POLY) - IPS PIPE (MNPT X MNPT) - BASS OR PVC TEMP. CAP.

