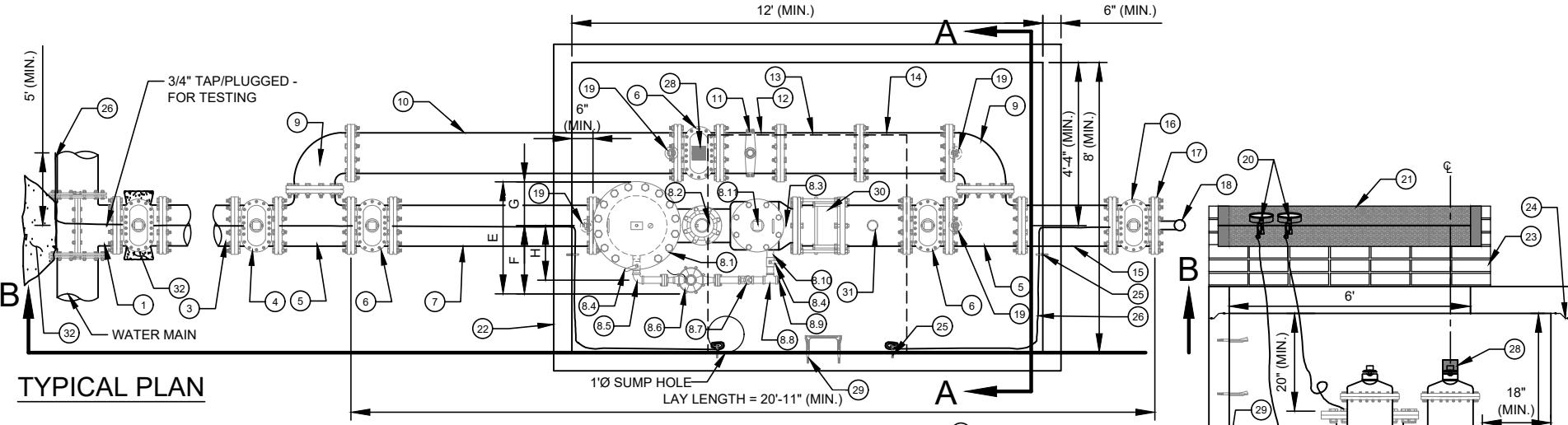


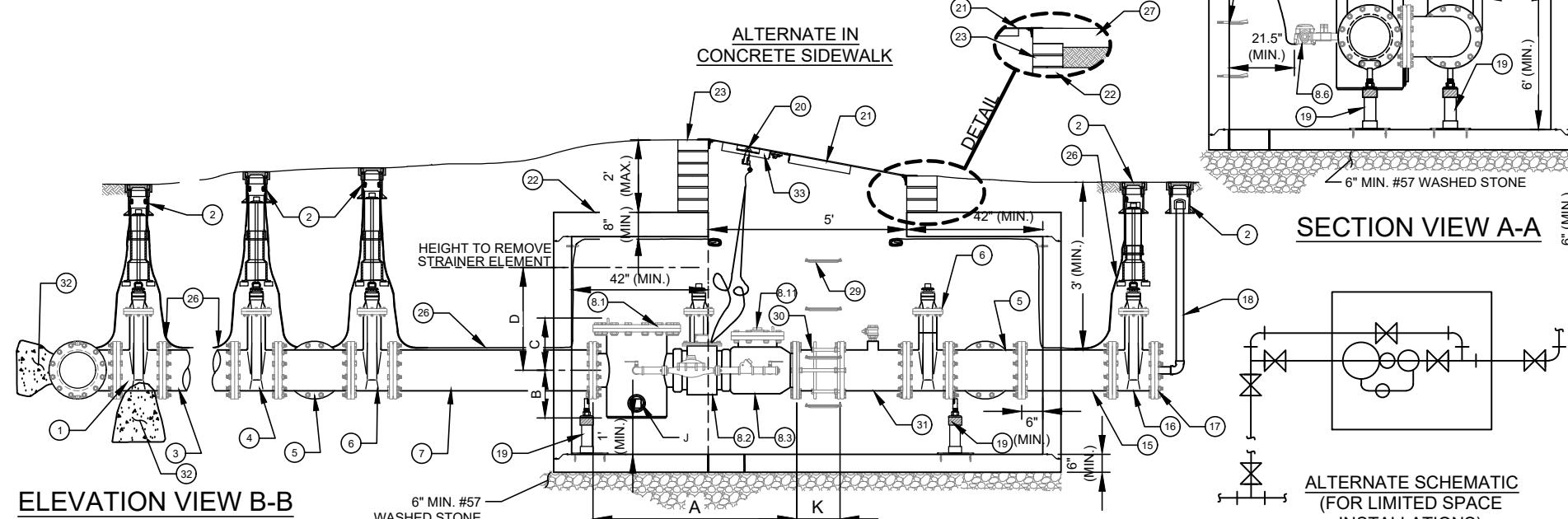
NOTES:

- A. ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND.
- B. ALL PIPE SHALL BE RESTRAINED JOINT DUCTILE IRON FROM TAP TO PROPERTY LINE VALVE.
- C. METER CONFIGURATION AND LENGTH / WIDTH MAY VARY DUE TO BRAND - VERIFY DIMENSIONS TO DETERMINE MINIMUM VAULT SIZE.
- D. VAULT SHALL BE SIZED AS NEEDED FOR MINIMUM CLEARANCE AS SHOWN AND RATED FOR NCDOT HS-20 LOADING - SUBMIT SHOP DRAWINGS / P.E. SEALED FOR REVIEW.
- E. ALL CONCRETE SHALL BE MINIMUM 4,000 PSI COMPRESSIVE STRENGTH.
- F. DESIGN SHALL CONFORM TO ASTM C858 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE".

- G. STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857.
- H. REBARS SHALL BE GRADE 60 PER ASTM A615.
- I. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- J. DIAGONAL REINFORCING SHALL BE ADDED AT ALL OPENINGS.
- K. PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE CONNECTORS (MANHOLE BOOTS) OR WITH 8" OF BRICK & MORTAR (AND 1/2-INCH THICK CONSTRUCTION EXPANSION MATERIAL).
- L. FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK, GROUND SHALL SLOPE AWAY FROM VAULT.
- M. ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.
- N. ALL VALVES SHALL BE OPEN RIGHT - CLOCKWISE, EXCEPT NO. 16.
- O. PRECAST VAULT COMPONENTS SHALL HAVE MARKINGS PER ASTM C478 REQUIREMENTS.



TYPICAL PLAN



DIMENSION B - H VARY SLIGHTLY - AS DETERMINED BY MANUFACTURER.

METER SIZE	A	B	C	D	E	F	G	H	J	K
12"	68"	15 3/4"	17 1/4"	34 1/16"	36 1/4"	22 1/2"	13 3/4"	18"	3"	SMITH-BLAIR = 10" ROMAC = 10.5"

- NO. DESCRIPTION:
 1. 12" OUTLET TAPPING SLEEVE AND 12" FL X MJ TAPPING VALVE ON EXISTING MAIN. 12" MJ OUTLET TEE, 10" FOSTER ADAPTOR AND 10" MJ GATE VALVE ON NEW MAIN.
 2. STANDARD VALVE BOX ASSEMBLY (TYPICAL) - ALL VALVES.
 3. 12" DUCTILE IRON PIPE - RESTRAINED.
 4. 12" MJ X FL DUCTILE IRON ADAPTER ON SHORT SIDE SERVICE (NOT SHOWN), 12" MJ X FL GATE VALVE ON LONG SIDE SERVICE (SHOWN).
 5. 12" ALL FLANGE DUCTILE IRON TEE.
 6. 12" ALL FLANGE GATE VALVE.
 7. 12" ALL FLANGE DUCTILE IRON PIPE SPOOL - L = 66" (MIN.) (SPECIAL CLASS 53).
 8. 12" FMCT METER ASSEMBLY (FLANGE X FLANGE) STRAINER.
 - 8.1. METER WITH AMR TRANSMITTER.
 - 8.3. CHECK VALVE.
 - 8.4. 2" BRASS BALL VALVE WITH HANDLE (FNPT X FNPT).
 - 8.5. 2" BRASS 90° BEND (FNPT X FNPT).
 - 8.6. 2" METER (2 BOLT METER FL - EACH END) WITH AMR TRANSMITTER.
 - 8.7. 2" BRONZE CHECK VALVE (FNPT X FNPT).
 - 8.8. 2" BRONZE TEE (FNPT X FNPT X FNPT).
 - 8.9. 2" SQUARE HEAD BRONZE PLUG (MNPT).
 - 8.10. 2" RED BRASS PIPE NIPPLES (TYP. - AS REQUIRED) - (MNPT X MNPT).
 - 8.11. 2" (MIN.) SQUARE HEAD BRASS PLUG (MNPT).
 9. 12" DUCTILE IRON 90° BEND FLANGE X FLANGE.
 10. 12" DUCTILE IRON PIPE - FLANGE X FLANGE SPOOL - L = 132.5" (MIN.) (SPECIAL CLASS 53).
 11. 12" X 1 1/2" SERVICE SADDLE WITH 1 1/2" BALL CORPORATION STOP - CC - TAPER THREAD.
 12. 12" DUCTILE IRON PIPE - FLANGE X PE - L = 24" (MIN.) (SPECIAL CLASS 53).
 13. 12" MECHANICAL JOINT DUCTILE IRON LONG PATTERN SOLID SLEEVE WITH RESTRAINED JOINT.
 14. 12" DUCTILE IRON PIPE - FLANGE X PE - L = 14" (MIN.) (SPECIAL CLASS 53).
 15. 12" DUCTILE IRON PIPE - FLANGE X PE - L = 30" (MIN.) (SPECIAL CLASS 53).
 16. 12" MECHANICAL JOINT (RJ) GATE VALVE - OPEN LEFT AT PROPERTY LINE.
 17. 12" MECHANICAL JOINT PLUG WITH 2" TAP (FNPT).
 18. 2" TEMPORARY BLOW OFF ASSEMBLY (GALV. STEEL (SCH 80) - END WITH THREADED COUPLING).
 19. GALV. STEEL OR S.S. ADJUSTABLE FLANGE PIPE SUPPORT (NUMBER REQUIRED = 4) (WITH STAINLESS STEEL ADHESIVE ANCHORS).
 20. AMR TRANSMITTERS.
 21. 5' X 6' ACCESS DOOR - SEE STD. DETAIL.
 22. PRECAST REINFORCED CONCRETE VAULT - 12' X 8' X 6' (MIN.). SEE NOTES C AND D.
 23. MINIMUM OF THREE STD. SOLID CONCRETE BRICK COURSES UNDER ACCESS DOOR FRAME - MAX. 2.
 24. JOINT REQUIRED AT FLAT TOP SECTION.
 25. 3/8" DIAMETER GALV. STEEL EYE BOLT (EPOXY ADHESIVE ANCHOR) - TYPICAL.
 26. AWG #12 GAUGE SOLID COPPER TRACER WIRE - WITH BLUE INSULATION (30 MILS HDPE) TERMINATE WITH 24" EXCESS WIRE (COILED) AT EYE BOLT AND VALVE BOX (TYPICAL).
 27. CAST IN PLACE CONCRETE SIDEWALK - BRICKWORK SHALL NOT EXTEND TO SURFACE. ACCESS DOOR FRAME SHALL REST ON SIDEWALK.
 28. VALVE LOCK AND WARNING TAG (FURNISHED BY CLTW) - LOCK VALVE CLOSED.
 29. PLASTIC STEP - 12" O.C. VERTICAL SPACING.
 30. 12" DISMANTLING JOINT (RESTRAINED) - ROMAC DJ400 - LL = 9.5" TO 11.5", SET TO 10.5" OR SMITH-BLAIR #975 - LL = 9" TO 11", SET TO 10". ALL HARDWARE, BOLTS, NUTS AND TIE RODS SHALL BE 304 S.S.
 31. 12" EPOXY COATED/LINED STEEL FL X FL SPOOL WITH 2" FNPT TEST OUTLET - LL = 12" (MARS CO.) AND 2" BALL CORPORATION STOP WITH T-HEAD OPERATING NUT - MNPT X FNPT.
 32. CONCRETE THRUST BLOCKING - 3,600 PSI.
 33. ATTACH ENGRAVED LABEL, WITH PREMISE NUMBER, TO UNDERSIDE OF DOOR, NEAR THE LIFTING HANDLE.