

**MATERIALS LIST – (ALL SIZES ARE SAME AS METER UNLESS OTHERWISE LISTED)**

**MATERIALS LIST**

- ① 1-MECH. CPLG. TO FIT, EQUAL TO ROMAC 501 OR MJ SLEEVE
- ② 1-4"x3" REDUCER, P.E.xM.J. (FOR 3" SERVICE ONLY)
- ③ 1-TEE, R.J. x FL.
- ④ 1-GATE VALVE, F.L.x R.J. (W/VALVE BOX & COVER)
- ⑤ 3-D.I. PIPE, P.E., LENGTH AS REQUIRED
- ⑥ 2-90° BEND, R.J.
- ⑦ 2-D.I. PIPE, P.E.xFL., LENGTH AS REQUIRED.
- ⑧ 1-EPOXY OR NYLON COATED 4" X 2" (CC) SERVICE SADDLE, FORD FC202 (TAP POINTED UP AT 12-O'CLOCK) OR APPROVED EQUAL, 1-2" CORPORATION STOP, AWWA TAPER(CC) x M.I.P.T., FORD FB400-7, WITH 2" F.I.P.T. X 2 1/2" M.N.S.T. BRASS ADAPTOR AND CAP (2 1/2" F.N.S.T.), OR APPROVED EQUAL.
- ⑨ 3-GATE VALVE, FL.
- ⑩ SENSUS OMNI C2 METER W/ INTERNAL STRAINER, W/ELECTRONIC RESOLUTION (100'S OF CUBIC FEET) REGISTER.
- ⑪ 1-D.I. ADAPTER FL. x P.E., LENGTH TO FIT.
- ⑫ 2-FL.xCPLG. ADAPTER, SMITH-BLAIR 912, RESTRAINED FCA, OR APPROVED EQUAL.
- ⑬ 2-WELDED FL. RESTRAINT OR MEGA-LUG MID-SPAN RESTRAINT AND THRUST BLOCK ADJACENT TO VAULT SEE STANDARD DETAIL W-56.
- ⑭ PRECAST CONC. VAULT W/ TWO DIAMOND PLATE DOORS RATED FOR H-30 LOADING. VAULT COVER SHALL INCLUDE 2 LOCKING ALUMINUM LW HATCH DOORS (PART NO. HHD-36"x72" OR APPROVED EQUAL) DOORS SHALL HAVE SLIP RESISTANT TREATMENT PER SECTION W4-17 OF THE ENGINEERING STANDARDS. DOORS SHALL BE CAST IN COVER WITH 8" SPECIAL OFFSET FROM VAULT WALL, AS SHOWN. COVER TO READ "WATER".
- ⑮ 1-1 1/2" BRASS NIPPLE, M.I.P.T.xM.I.P.T., 6" LONG, CONNECT TO TEST PORT OF COMPOUND METER. BALL VALVE FORD FB1000 FIPTxFIPT SIZED TO FIT OMNI C2 FLUSHPORT, OR APPROVED EQUAL.
- ⑯ 1-1 1/2" M.I.P.T. X 2 1/2" M.N.S.T. BRASS ADAPTOR AND CAP (2 1/2" F.N.S.T.)
- ⑰ TR/PL SENSOR (TO MOUNT IN VAULT ACCESS DOOR).
- ⑱ 2-ADJUSTABLE STANCHION BOLTED TO FLOOR.
- ⑲ 1-GALVANIZED STEEL LADDER TO BE ATTACHED TO VAULT. THE FIRST STEP SHALL BE MAX. 8" BELOW TOP OF COVER.
- ⑳ 1-BILCO LADDER UP, LU-2 MODEL, OR APPROVED EQUAL, AT TOP OF THE LADDER. SEE DETAIL W-19.
- ㉑ 1- TEE, FL.

**NOTES:**

1. ALL MATERIALS, INCLUDING METER SHALL BE FURNISHED BY CONTRACTOR.
2. ALL PIPE & FITTINGS 3" & LARGER SHALL BE CEMENT LINED DUCTILE IRON, CLASS 52 MINIMUM.
3. TEE WITH (3) GATE VALVES REQUIRED AT DISTRIBUTION MAIN.
4. VAULTS SHALL NOT BE INSTALLED IN AREAS W/VEHICULAR TRAFFIC.
5. PROVIDE 24" CLEARANCE BETWEEN VAULT FLOOR & BOTTOM OF COMPOUND METER. WHERE ELEVATION OF VAULT FLOOR IS TOO LOW TO DRAIN TO DAYLIGHT OR STORM SYSTEM, THIS CLEARANCE CAN BE REDUCED TO A MINIMUM OF 12".
6. PROVIDE 2 1/4" DIAM. OPENING IN ALUMINUM DOOR FOR TR/PL SENSOR.
7. LADDER TO BE BOLTED TO VAULT FLOOR AND TO VAULT WALL AT THREE LOCATIONS. RUNGS SHALL BE SPACED AT 12" ON CENTER.
8. ALL FITTINGS OUTSIDE VAULT SHALL INCLUDE JOINT RESTRAINT DEVICES.

**VAULT REQUIREMENTS**

1. MINIMUM DESIGN STRUCTURAL LOADING SHALL BE H-20 LOADING COMPLY WITH ASTM C-857 AND ASTM C-890.
2. ALL PRECAST CONCRETE PRODUCTS SHALL BE MANUFACTURED BY AN NPCA-CERTIFIED PLANT.
3. VAULT ASSEMBLIES (WALLS, BASES AND COVERS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-858 AND ASTM C-913.
4. REINFORCING STEEL BARS SHALL CONFORM TO ASTM A-615.
5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-1064.
6. GASKET MATERIAL SHALL CONFORM TO ASTM C-443.
7. END WALLS FOR WATER PIPE PENETRATIONS SHALL BE CAST WITHOUT KNOCK-OUTS.
8. ALL WALL, FLOOR AND LID PENETRATIONS SHALL BE CORE DRILLED OR INTEGRALLY CAST.
9. VAULT ASSEMBLIES SHALL CONSIST OF 1). A COVER AND INTEGRALLY CAST BASE AND WALL UNIT; OR 2). INDIVIDUALLY CAST BASE, WALL AND COVER SECTIONS.
10. ALL VAULTS SHALL BE WATERTIGHT AND BE FREE OF ANY VISIBLE LEAKS.
11. THE REPAIR OF ANY LEAKS SHALL BE IN ACCORDANCE WITH THE VAULT MANUFACTURER'S WRITTEN RECOMMENDATIONS..
12. A MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH THESE REQUIREMENTS SHALL BE PROVIDED FOR EACH TYPE OF PRODUCT FURNISHED FOR INSTALLATION.
13. VAULT SHALL HAVE COAL TAR COATING OF 5 TO 9 MILS APPLIED TO THE EXTERIOR.

4-INCH METER VAULT INTERIOR CLEAR DIMENSIONS:

	MIN.	MAX.
LENGTH	6'-10"	7'-2"
WIDTH	5'-4"	5'-8"
HEIGHT	6'-0"	7'-0"



City of  
Bellevue

WATER UTILITY

TITLE

4" DOMESTIC METER  
MATERIALS LIST AND VAULT REQUIREMENTS