**2019 UPDATES**

1. **3'-0" W x 6'-0" L CENTERED HATCH MATCH SIZE OF VALVE ROMAC 202S, SADDLE (TYP) DUCTILE IRON PIPE RESTRAINED**

2. **MATCH SIZE OF VALVE CORP. STOP (TYP) MATCH SIZE OF VALVE BRASS NIPPLE LOW FLOW CLA-VAL 2" COMPRESSION 90 (TYP)**

3. **BYPASS ATTACHED TO UNISTRUT SUPPORT (TYP) LADDER MOUNTED TO FLOOR**

4. **2" TYP 54" MIN. 62" MAX. BYPASS (TYP)**

5. **FLOW REDUCERS, IF NEEDED (TYP) FL X PE PIPE SPOOL INSTALLED THRU KNOCKOUT, LENGTH TO FIT (TYP) PIPE SUPPORT MOUNTED TO FLOOR (TYP)**

6. **FLOW DRAIN 12" DRAIN ROCK UNDER ENTIRE VAULT OR DRAIN TO STORM OR DAYLIGHT WITH 8" MIN COMPACTED CRUSHED ROCK UNDER ENTIRE VAULT.**

**MATERIAL LIST**

1. **(FT) DUCTILE IRON PIPE, CLASS 53, DIAMETER AS DETERMINED BY DISTRICT.**
2. **(1) 810 VAULT WITH DOUBLE LEAF SPRING ASSISTED DIAMOND PLATE LOCKING COVER ALUMINUM.**
3. **(1) 1-1/2" PVC FRAME DRAIN TO BOTTOM OF VAULT.**
4. **(1) ALUMINUM SAFETY LADDER WITH EXTENDABLE SAFETY POSTS MIN. 1-INCH DIAMETER RUNG WITH MIN. 12-INCH WIDTH BETWEEN RUNGS AND 18-INCH WIDTH BETWEEN SIDE BARS.**
5. **(2) 2" SERVICE SADDLES, ROMAC 202S.**
6. **(2) 2" CORPORATION STOPS—BRASS MPI X COMP, FORD FB100-6-Q OR EQUAL.**
7. **(2) 2" 90—BRASS COMP X COMP, FORD L44-77-Q OR EQUAL.**
8. **(2) QUICK JOINT COUplings FOR CONNECTION TO LOW FLOW CLA-VAL (REDUCERS MAY BE REQUIRED.)**
9. **(FT) 2" HDPE SD9 OR TYPE K COPPER SERVICE LINE.**
10. **(1) PRESSURE REDUCING VALVE FOR LOW FLOW, CLA-VAL MODEL 90-01 (SIZE ACCORDING TO DISTRICT DETERMINATION FOR LOW FLOW)**
11. **(6) 2" POLY INSERTS—CTS STAINLESS STEEL MINIMUM QUANTITY 2-3/8" LENGTH BRASS, BETTER FOR PRESSURE**
12. **(4) 2" UNISTRUT CLAMPS (MINIMUM QUANTITY WITH TWO CLOSE TO LOW FLOW CLA-VAL) SIZE OF VALVE**
13. **(2) RESILIENT SEAT GATE VALVES AWWA C509 WITH WHEEL OPERATORS, KENNEDY OR EQUAL, DIAMETER ACCORDING TO INSTALLED MAIN SIZE.**
14. **(2) DUCTILE IRON PIPE SPOOL, FL X PE, LENGTH TO FIT**
15. **(1) RFCA, ROMAC OR EQUAL, DIAMETER ACCORDING TO INSTALLED MAIN SIZE.**
16. **(2) FLANGE REDUCERS (SIZE FROM MAIN DIAMETER TO DIAMETER OF HIGH FLOW CLA-VAL) NO REDUCERS IN VAULT.**
17. **(1) PRESSURE REDUCING/PRESSURE SUSTAINING VALVE FOR HIGH FLOW, FLANGE ENDS, CLA-VAL 92 SERIES, EPOXY LINED, STAINLESS STEEL TRIM (SIZE AND FEATURES ACCORDING TO DISTRICT DETERMINATION FOR HIGH FLOW)**
18. **(2) PIPE SUPPORTS MOUNTED TO FLOOR W/ STAINLESS STEEL HILTI ANCHOR BOLTS, SADDLE SIZE ACCORDING TO PIPE DIAMETER.**
19. **(1) CUBIC YARD MINIMUM 1-1/2" DRAIN ROCK (REQUIRED WHEN DRAIN TO SUBGRADE).**
20. **(1) CUBIC YARD MINIMUM 5/8" MINUS CRUSHED ROCK.**