



① APPROVED DOUBLE CHECK VALVE ASSEMBLY INCLUDING FACTORY SUPPLIED SHUT-OFF VALVES: AS LISTED ON THE CURRENTLY APPROVED BACKFLOW PREVENTION ASSEMBLIES LIST SPECIFIED BY OREGON DEPARTMENT OF HUMAN SERVICES.

② CURB CUT REQUIRES A PERMIT. CITY STANDARDS APPLY.

PLUMBING FROM THE CONNECTION TO POTABLE WATER SUPPLY LINE TO THE ASSEMBLY REQUIRES A PLUMBING PERMIT AND MUST BE INSPECTED BEFORE COVERING.

SERVICE TAPS CANNOT ALWAYS BE INSTALLED AT A LOCATION DESIRED BY THE CUSTOMER BECAUSE OF UNDERGROUND OBSTACLES THAT BECOME KNOWN ONLY AFTER EXCAVATION FOR THE INSTALLATION OF THE SERVICE TAP. AS A RESULT, EWEB REQUIRES THAT THE SERVICE TAP BE INSTALLED BEFORE THE CUSTOMER INSTALLS ANY VAULTS.

AN INITIAL TEST PERFORMED BY A STATE CERTIFIED BACKFLOW ASSEMBLY TESTER IS REQUIRED AT THE TIME OF INSTALLATION, AT LEAST ANNUALLY THEREAFTER OR MORE FREQUENTLY AS REQUIRED BY WATER SUPPLIER.

COPIES OF COMPLETED TEST REPORT SHALL BE FURNISHED TO:
 THE OWNER
 THE WATER SUPPLIER (EWEB, SUB OR RAINBOW WATER DISTRICT)
 THE BUILDING OFFICIAL

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| SUB DWG NO FF11DE56 | REV 2 |
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CITY OF EUGENE BUILDING AND PERMITS REVIEW *SR*

RWD ENGINEERING REVIEW _____

SUB ENGINEERING REVIEW *DK*

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| FUNC | BY | CHK | APP |
| DES | SLW | | SLW |
| DWN | RS | | SLW |
| SPONSOR | | SLW | |
| DATE: 01/01/95 | | | |

WATER STANDARDS
REGIONAL DESIGN STANDARDS
FEBCO N PATTERN DOUBLE CHECK VALVE ASSEMBLY
2 1/2" - 10" BELOW GROUND
EUGENE WATER & ELECTRIC BOARD - EUGENE, OREGON

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| SCALE: NTS | | | |
| REV DATE | BY | CHK | APP |
| 05/21/09 | NLN | | <i>MDH</i> |
| 5 YEAR REVIEW | | | |
| DWG NO WD6-6.5440 | | | REV 2 |
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NOTES:

1. DOUBLE CHECK VALVE ASSEMBLY (DCV) SHALL BE INSTALLED IN A LOCATION APPROVED BY EWEB, SUB OR RWD FOR THEIR RESPECTIVE SERVICE AREA.
2. DCV MAY BE INSTALLED VERTICALLY, PROVIDED THAT THE DCV IS:
 - a. RECOMMENDED BY THE MANUFACTURER FOR VERTICAL INSTALLATION
 - b. APPROVED IN A VERTICAL ORIENTATION AS LISTED ON THE CURRENTLY APPROVED BACKFLOW PREVENTION ASSEMBLIES LIST SPECIFIED BY OREGON DEPARTMENT OF HUMAN SERVICES.
3. ALL CLEARANCES PICTURED APPLY TO OUTSIDE, IN-BUILDING, AND VERTICAL INSTALLATIONS.
4. DCV INSTALLED BELOW GROUND IS PROTECTED FROM FREEZING DUE TO LOCAL SOIL TEMPERATURE.
 - a. DCV AT A DEPTH OF 24" OR GREATER ARE EXEMPT FROM INSULATION/HEAT SOURCE REQUIREMENT.
5. SUB AND RWD REQUIRE A BORE-SIGHTED DRAIN TO DAYLIGHT IN ALL INSTALLATIONS IN THEIR SERVICE AREAS.
6. EWEB REQUIRES VAULT INSTALLATION TO HAVE A SUMP PUMP AND HIGH WATER ALARM NEAR THE MAIN ALARM PANEL (EACH WIRED TO A SEPARATE CIRCUIT) IN THEIR SERVICE AREA. ALTERNATIVE METHODS MAY BE APPROVED BEFORE CONSTRUCTION ONLY. TEMPORARY DEWATERING OF VAULT IS REQUIRED UNTIL PERMANENT SUMP PUMP AND HIGH WATER ALARM ARE INSTALLED. ALTERNATIVES MAY INCLUDE:
 - a. DRY WELL (2 CUBIC YARD MINIMUM) MUST BE APPROVED BEFORE CONSTRUCTION
7. COMPACTED GRAVEL OR UNDISTURBED BASE.
8. HATCH, MINIMUM 3' X 3', SPRING ASSISTED, GALVANIZED OR ALUMINUM DIAMOND PLATE.
 - a. IF VAULT IS IN A PEDESTRIAN TRAFFIC AREA, METAL SURFACES SHALL HAVE FACTORY APPLIED NON-SKID COATING.
9. DCV 2 1/2" OR LARGER SHALL HAVE VALVE SUPPORTS.
10. DCV INSTALLED BELOW GROUND LEVEL SHALL HAVE WATERTIGHT PLUGS OR CAPS INSTALLED ON THE TEST PORTS.
11. WATERTIGHT GROUT SHALL BE USED TO SEAL OPENINGS.
12. IF VAULT DEPTH EXCEEDS 4', OSHA APPROVED FIXED LADDER IS REQUIRED.
13. REINFORCED CONCRETE VAULT (ASTM C-875).

ADDITIONAL CONSIDERATIONS FOR FIRE SERVICES:

1. FIRE SERVICE ASSEMBLIES SHALL BE INSTALLED WITHIN 10' OF EWEB, SUB OR RWD POINT OF CONNECTION (GENERALLY LOCATED AT THE PROPERTY LINE) AND SHALL BE DIRECTLY INLINE WITH SERVICE TAP LOCATION SUCH THAT THE POINT OF CONNECTION IS INLINE WITH ASSEMBLY.
2. ALL PIPING PRECEDING THE DOUBLE CHECK VALVE SHALL BE CONSTRUCTED OF POTABLE APPROVED MATERIAL PER OPSC TABLE 6-4
3. NO OUTLETS OR CONNECTIONS (INCLUDING HYDRANTS) WILL BE PERMITTED ON FIRE SERVICE LINES PRIOR TO BACKFLOW PREVENTION ASSEMBLIES.
4. ABOVE GROUND ENCLOSURES FOR FIRELINES SHALL INCLUDE INSULATION AND/OR HEAT SOURCE DESIGNED TO KEEP ENCLOSURE AT A MINIMUM TEMPERATURE OF 40 F (NFPA 8.16.4.1.3)
5. WHERE NON-FOOD GRADE ANTIFREEZE, CORROSION INHIBITORS, OR OTHER CHEMICALS ARE ADDED TO A FIRE PROTECTION SYSTEM A REDUCED PRESSURE BACKFLOW ASSEMBLY OR REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE USED.

REFERENCE: OREGON PLUMBING SPECIALTY CODE, CHAPTER 6 WATER SUPPLY AND DISTRIBUTION, 603.4.6.3; 603.4.6.4; 603.3.3; 603.3.4; 603.3.8; 603.4.18.3; TABLE 6-4
 REFERENCE: OREGON ADMINISTRATIVE RULES 333-061-0070 (5) (12) (15); 333-061-0071 (9)
 REFERENCE: OREGON ADMINISTRATIVE RULES CHAPTER 437, DIVISION 2, 1910.27

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