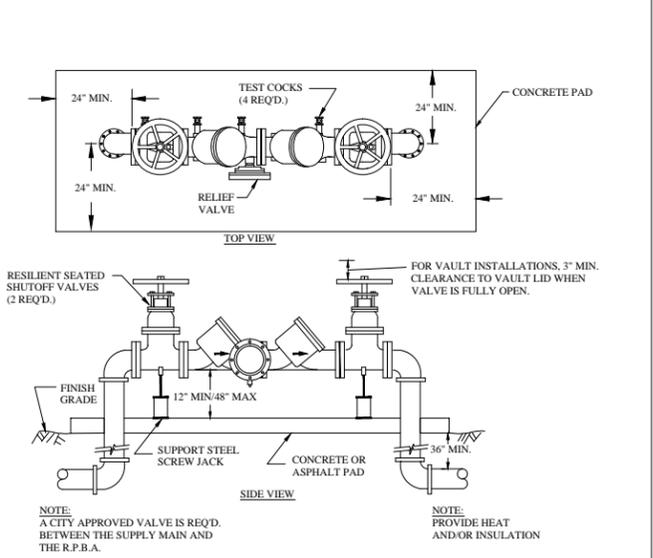


- NOTES:**
- APPROVED DOUBLE CHECK VALVE ASSEMBLY TO LAY HORIZONTAL WITH THE GROUND. DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
  - THE WATER LINE SHALL BE DISINFECTED, FLUSHED, AND PRESSURE TESTED PRIOR TO INSTALLING THE BACKFLOW ASSEMBLY. THE BACKFLOW ASSEMBLY SHALL BE PROTECTED FROM FREEZING AND FLOODING.
  - THE DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
  - ALL PIPE, VALVE, AND FITTING JOINTS, FROM THE SUPPLY MAIN, SHALL BE FLANGED AND RESTRAINED.
  - FIRE DEPT. CONNECTION SHALL NOT EXIT THROUGH THE TOP OF THE VAULT.
  - LINK SEAL PIPE ENTRANCE/EXIT.
  - ALL VAULTS SHALL BE PRE-APPROVED PRIOR TO INSTALLATION.
  - VAULTS SHALL BE INSTALLED AT PROPERTY LINE OR EASEMENT LINE AND ON OWNERS PROPERTY.
  - VAULTS SHALL HAVE A MINIMUM OF 3' CLEARANCE FROM ALL STRUCTURES.
  - THE BACKFLOW ASSEMBLY SHALL BE TESTED AFTER INSTALLATION AND PRIOR TO ACCEPTANCE AND ALSO YEARLY THEREAFTER BY A WASH. STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. TEST RESULTS SHALL BE SENT ACCORDING TO DETAIL W110.

**STANDARD DOUBLE CHECK VALVE ASSEMBLY 2 1/2" & LARGER**

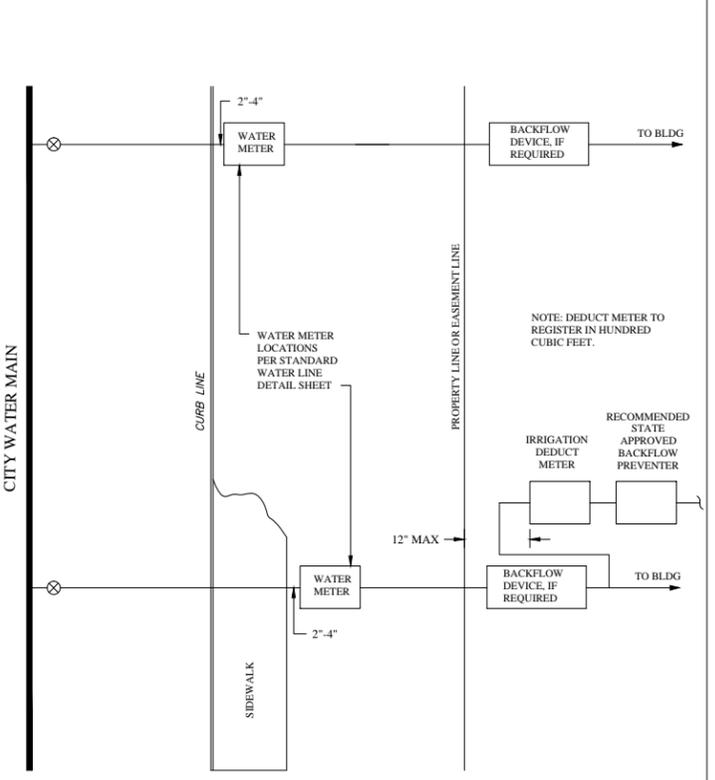
DETAIL NO. - W140



- NOTES:**
- APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) TO LAY HORIZONTAL ONLY. (VERTICAL IF APPROVED BY DEPT. OF HEALTH)
  - DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
  - THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLING THE RPBA. THE RPBA SHALL BE PROTECTED FROM FREEZING AND FLOODING.
  - ALL UNDERGROUND PIPE, VALVES AND FITTING JOINTS SHALL BE RESTRAINED FROM THE SUPPLY MAIN. ALL ABOVE GROUND JOINTS SHALL BE FLANGED.
  - GROUT PIPE ENTRANCE AND EXIT IN VAULT, WITH WATERTIGHT GROUT.
  - ALL ENCLOSURES SHALL BE PRE-APPROVED PRIOR TO INSTALLATION.
  - RPBA SHALL BE INSTALLED AT PROPERTY LINE OR EASEMENT LINE AND ON OWNER'S PROPERTY.
  - ADEQUATE GRAVITY DRAINAGE SYSTEM REQUIRED WITH APPROVED AIR GAP.
  - MINIMUM 24" CLEARANCE ON ALL SIDES AROUND RPBA.
  - THE RPBA SHALL BE TESTED AFTER INSTALLATION AND PRIOR TO ACCEPTANCE, ALSO YEARLY THEREAFTER BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. TEST RESULTS SHALL BE SENT ACCORDING TO DETAIL W110.
  - HEAT AND/OR INSULATION SHALL BE PROVIDED TO PREVENT FREEZING.

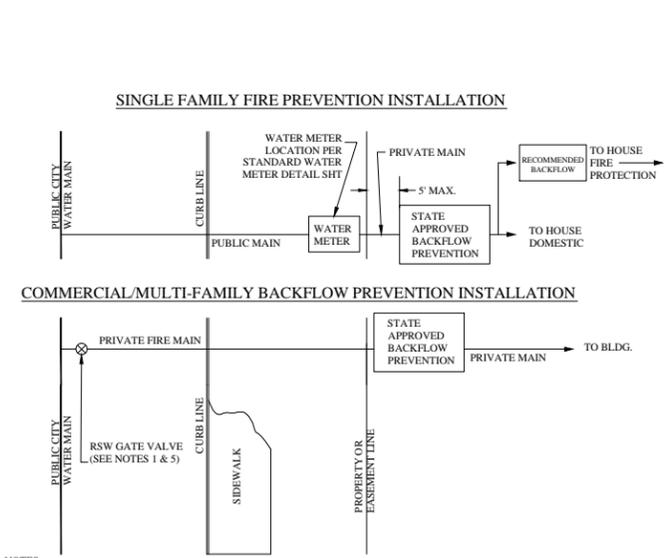
**STANDARD REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY 2 1/2" & LARGER**

DETAIL NO. - W150



**STANDARD DEDUCT METER & BACKFLOW LOCATION**

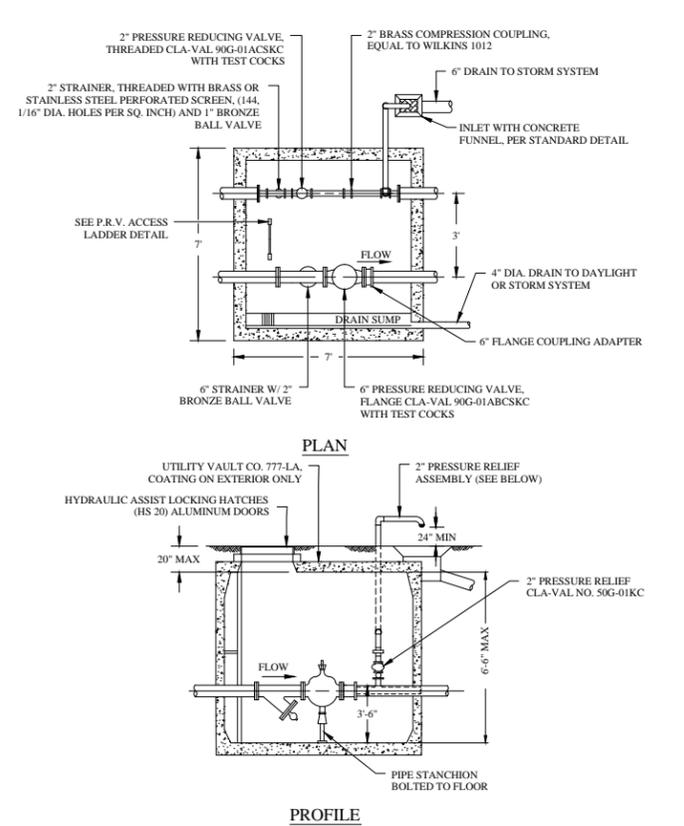
DETAIL NO. - W160



- NOTES:**
- ALL STAND ALONE FIRE PROTECTION SERVICES (F.P.S.) SHALL HAVE A 4" OR LARGER IRON BODY GATE VALVE. VALVES SHALL BE LOCATED AT THE CONNECTION TO THE WATER MAIN.
  - FIRE PROTECTION SERVICES 2" AND SMALLER SHALL BE TYPE "K" COPPER AND F.P.S. LARGER THAN 2" SHALL BE 4" OR LARGER DUCTILE IRON PIPE.
  - ALL BACKFLOW DEVICES SHALL BE PER APPROVED PLAN.
  - ALL COMMERCIAL FIRE PROTECTION SERVICES SHALL BE PRIVATELY OWNED AND MAINTAINED DOWNSTREAM OF THE ROW OR EASEMENT.
  - REQUESTS FOR EXCEPTIONS TO THESE REQUIREMENTS MAY BE SUBMITTED IN WRITING WITH THE PLAN VIEW TO WATER DEPARTMENT, CROSS CONNECTION PROGRAM MANAGER.
  - ALL BACKFLOW DEVICES ARE PRIVATELY OWNED, TESTED AND MAINTAINED.
  - SINGLE FAMILY WATER METERS SHALL BE SIZED TO MEET THE REQUIRED FIRE FLOW.
  - PER RCW CHAPTER 70.119A.210, THE CITY OF WASHOUGAL SHALL NOT BE LIABLE FOR DAMAGES RESULTING FROM THE SHUTDOWN OF SINGLE FAMILY SERVICES DUE TO ROUTINE MAINTENANCE, NONPAYMENT, OR WATER SYSTEM EMERGENCIES.
  - ALL FIRE PROTECTION SERVICES, EXCEPT SINGLE FAMILY APPLICATIONS, SHALL BE TAPPED SEPARATELY FROM ALL DOMESTIC SERVICES AND FIRE HYDRANT LEADS.

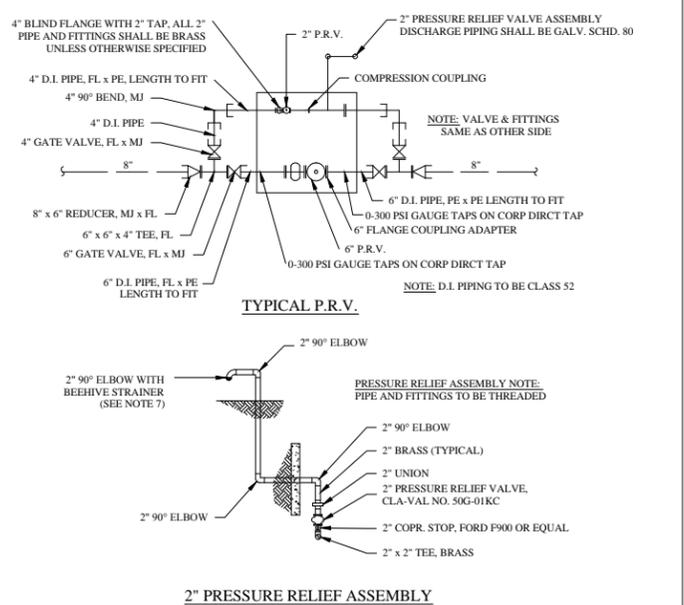
**STANDARD FIRE PROTECTION BACKFLOW LOCATION**

DETAIL NO. - W161



**STANDARD PRESSURE REDUCING STATION**

DETAIL NO. - W170



- NOTES:**
- SIZING OF VALVES WILL BE MODIFIED FOR OTHER SIZES OF PIPE.
  - GALVANIZED LADDER TO BE SECURED TO VAULT PER STD. DTL.
  - ALL P.R.V.'s SHALL HAVE OPENING/CLOSING SPEED CONTROLS, EPOXY COATED BODY AND VALVE POSITION INDICATOR. CLA-VAL X101.
  - PILOT CONTROLS SHALL BE ON SIDE OF P.R.V. FACING INTERIOR OF VAULT TO PROVIDE EASY ACCESS.
  - ALL 90G MODEL CLA-VAL P.R.V.'s 3" AND SMALLER SHALL BE EQUIPPED WITH STAINLESS STEEL TRIM (SEAT, STEM, & COVER BEARING).
  - SEAL ALL PIPE PENETRATIONS THROUGH VAULT WITH LINK SEAL.
  - PRESSURE RELIEF DISCHARGE DOWNSPOUT SHALL DIRECT WATER TOWARDS CENTER OF INLET GRATE.

**STANDARD PRESSURE REDUCING STATION**

DETAIL NO. - W170A

By	
Designed By:	IV
Drawn By:	IV
Reviewed By:	
As Shown	

No.	
Revision	

**CITY OF WASHOUGAL**

STANDARD WATER DETAILS - SHEET 4