Installation Requirements

1. Any backflow preventer must be installed inside the building unless the Northwestern Water and Sewer District approves an alternate location.

2. The backflow preventer must be installed immediately downstream of the water meter, if the water meter is in a pit then the backflow preventer must be installed immediately as the service piping enters the building.

3. The service piping between the meter and the backflow preventer must be void of branches or outlets of any type.

4. The backflow preventer must be installed a minimum of 6" from the wall and 18" to 24" from the floor.

5. The backflow preventer must be installed in a horizontal plane.

6. All test cocks must face the center of the room unless they are mounted in the top or bottom of the assembly.

7. The backflow preventer may be no smaller than the water meter size unless a manifold or parallel setting of backflow preventers is installed.

8. If a manifold or parallel setting is installed, then the combined flow rate of the assemblies must equal or exceed the flow rate of a single assembly setting.

9. The backflow preventer must be of a type approved by the Ohio EPA and the Northwestern Water and Sewer District.

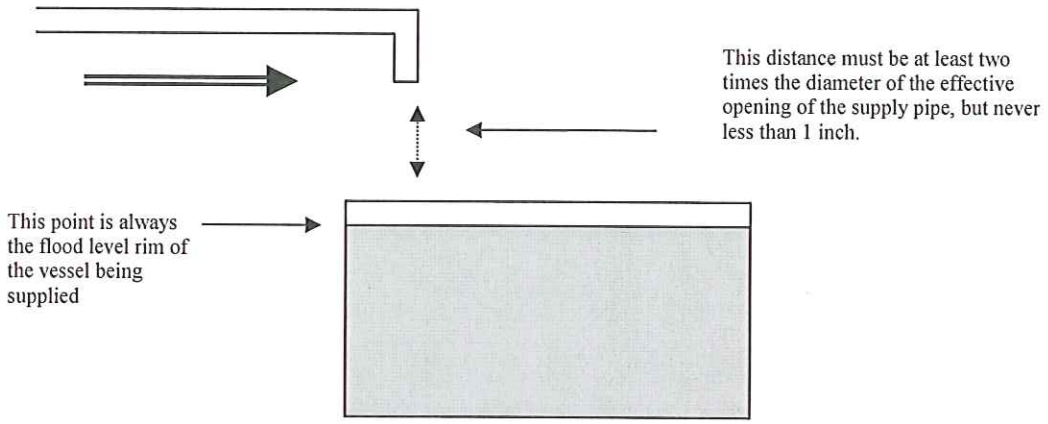
10. Water will be spilled during the normal operation of a reduced pressure backflow preventer and during the periodic testing of all backflow preventers; for this reason it is recommended that a floor drain be installed as close as practical to the assembly.

11. The relief valve discharge of a reduced pressure backflow preventer may be piped to a floor drain provided an approved air gap separation is maintained at the point of connection to the relief valve discharge.

Air-Gap Separation

Must be at least two times the nominal diameter of the discharge piping but never less than one inch.

A physical separation through the free atmosphere measured from the opening of the discharge piping to the flood level rim of the receiving vessel.



THERMAL EXPANSION CONTROL

The Ohio Basic Building Code, Plumbing; Section 607, "Hot Water Supply System", Sub-Section 607.3.2, "Backflow Prevention Device or Check Valve" specifies that:

"Where a backflow prevention device, check valve, or other device is installed on a water supply system utilizing storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed."

Thermal expansion of heated water will occur wherever potable water is heated in a cooled system. Uncontrolled thermal expansion usually results in leaking faucets or burst washing machine supply hoses, but may result in a collapse of the vent pipe on gas-fired water heaters, or violently burst water heaters in extreme cases.

An expansion tank is one method (other methods are available refer to plumbing code) designed to absorb thermal expansion that will be created by the hot water heater, if the water user's potable system is closed with a containment principle backflow prevention assembly, a check valve or a pressure reducing valve without an internal bypass.

The expansion tank must be installed in the cold water service piping on the supply side of the hot water heater prior to any control valves. The size of the expansion tank is based upon the size of the hot water heater and may be determined by referring to the manufacturer recommendations.