

SECTION 3 – BACKFLOW PREVENTION ASSEMBLIES AND FIRELINES

3-01 PUBLIC WATER SYSTEM PROTECTION

All water services, other than residential, connected to the public water system shall be required to include an approved backflow prevention assembly; the type to be designated by the Engineer. Certain types of residential services may be required to have an approved backflow prevention assembly. The type of protection approved shall be based on the existing or potential degree of hazard that exists on the user's premises, in the opinion of the Engineer.

3-02 APPROVED BACKFLOW PREVENTION ASSEMBLIES

Approved manufactures/models of backflow prevention assemblies, including fire lines as mentioned elsewhere in this Section, are those approved by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research (USC's Foundation). Contact USC's Foundation for a list of approved assemblies.

Four inch and larger approved backflow prevention assemblies, including fire lines, have two gate valves and four test cocks. As the gate valves are part of the unit (assembly) approved by USC's Foundation, the gate valves do not have to meet the requirements, including manufacturer, of Section 4-08 of these Specifications. Gate valves for fire lines must be of the OS&Y type with rising stems and tamper switches.

Four-inch and smaller backflow assemblies, other than fire lines, shall be installed in conformance with City of Compton Standard Drawings 603 and 604.

The horizontal run of all backflow assemblies shall be installed in a level position.

3-03 TESTING

The Owner/Developer or Contractor shall be responsible for the installation, initial test and certification of all new backflow prevention assemblies. Thereafter, backflow prevention assemblies will be maintained and tested annually by the owner or water user. All testing shall be done by a certified backflow device tester as approved by the County of Los Angeles Public Health. Contact the County of Los Angeles Public Health or Water Utility Division for a list of certified testers.

3-04 LOCATION OF ASSEMBLIES

Backflow prevention assemblies shall be located as close as practical to the meter, a minimum 12 inches behind the property line and subject to approval by the Engineer. The assemblies shall be at least 12 inches from walls, buildings, obstructions, or other devices, readily accessible for testing, maintenance, and repairs. The lowest part of any reduced pressure principle backflow assembly shall be installed between 12 and 18 inches above finished grade. The above ground horizontal run segment of a backflow assembly shall be installed in a level position.

Backflow prevention devices shall be installed at locations other than immediately behind the water meter when required by law or when determined by the Water Utility Division and regulatory agency that such additional devices are necessary to adequately protect the water supply.

There shall be no connections between the meter and the backflow assembly.

3-05 FIRELINES

All fire lines shall require a detector meter (by-pass meter) and backflow protection as determined by the Water Utility Division. The standard fire line shall have a double check detector backflow assembly. When a higher degree of hazard exists, a reduced pressure principle detector backflow assembly is required. All fire lines shall be installed in conformance with City of Compton Standard Drawings 701 and 721.

The detector (by-pass) meter shall be 5/8 inch or 3/4 inch nominal size with bronze main case and bottom plate, and shall have a straight read magnetic drive register capable of detecting consumptive use in cubic foot increments.

The above ground horizontal run segment of a fire line assembly shall be installed in a level position.

3-06 PAINTING

See Section 5-10 of these Specifications for painting requirements for all backflow prevention assemblies, fire lines, and fire department connections.

3-07 AESTHETICS

The Owner/Developer is encouraged to locate all above ground large services, backflow prevention assemblies, and fire lines in a manner that is aesthetically pleasing. If a method of concealment is used, it shall not obscure the City of Compton Fire Department's pumper connection, OS&Y rising stems, hinder access to the connection, or obscure the testing of the device.