

Sec. T. - Cross connection control.

Part 1

1:01. Definitions.

For the purpose of this ordinance, the following definitions shall apply unless the context clearly indicates or requires a different meaning. If a word or term used in this ordinance is not contained in the following list, its definition, or other technical terms used, shall have the meanings or definitions listed in the latest edition of the *Manual of Cross Connection Control* published by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.

- (1) *Approved backflow prevention assembly or backflow assembly or assembly* means an assembly to counteract backpressures or prevent backsiphonage. This assembly must appear on the list of approved assemblies issued by USC Foundation for Cross-Connection Control and Hydraulic Research.
- (2) *Auxiliary supply* means any water source or system other than the public water system that may be available in the building or on the property.
- (3) *Backflow* means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system of the city's water.
- (4) *Boresight or boresight to daylight* means providing adequate drainage for backflow prevention assemblies installed in vaults through the use of an unobstructed drainpipe.
- (5) *City* means City of Colleyville.
- (6) *Contamination* means the entry into or presence in a public water supply system of any substance that may be deleterious to health and/or quality of the water.
- (7) *Cross connection* means any physical arrangement where a potable water supply is connected, directly or indirectly (actual or potential), with any other non-drinkable water system, used water system or auxiliary water supply, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, air conditioner units, fire protection system, or any other assembly which contains, or may contain, contaminated water, sewage, or other liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or change over assemblies, or other temporary or permanent assemblies through which, or because of which, backflow may occur are considered to be cross connections.
- (8) *Customer Service Inspector or CSI* is an individual who has fulfilled the requirements set out in TNRCC Rules and Regulations for Public Water Systems, paragraph 290.46(j)(1).
- (9) *Degree of hazard* means the low or high hazard classification that shall be attached to all actual or potential cross connections.
- (10) *Double check valve backflow prevention assembly or double check assembly or double check* means an assembly, which consists of two independently operating check valves, which are spring-loaded or weighted. The assembly comes complete with a gate valve on each side of the checks, as well as test cocks to test the checks for tightness.
- (11) *Health hazard* means an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to health.
- (12) *High hazard* means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may cause illness or death to backflow into the potable water supply.
- (13) *Inspector* means a person that is a certified inspector recognized by the City of Fort Worth and registered with the City of Colleyville and has satisfied TNRCC regulations for CSI.
- (14) *Low hazard* means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may be objectionable but not hazardous to one's health to backflow into the potable water supply.

- (15) *Material improvement* means any plumbing work done within a facility that requires a plumbing permit.
- (16) *Plumbing hazard* means an internal or plumbing-type cross connection in a consumer's potable water system that may be either a pollution or a contamination-type hazard.
- (17) *Point-of-use isolation* means the appropriate backflow prevention within the consumer's water system at the point at which the actual or potential cross connection exists.
- (18) *Polytonal hazard* means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree of intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (19) *Potable water supply* means any water supply intended or used for human consumption or other domestic use.
- (20) *Premises* means any piece of property to which water is provided, including all improvements, mobile structures, and structures located on it.
- (21) *Premises isolation* means the appropriate backflow prevention at the service connection between the public water system and the water user.
- (22) *Public water system* or *system* means any public or privately owned water system that supplies water for public domestic use. The system must meet all the health requirements set forth by the TNRCC. The system will include all services, reservoirs, facilities, and any equipment used in the process of producing, treating, storing or conveying water for public consumption.
- (23) *Reduced pressure principle backflow prevention assembly* or *reduced pressure principle assembly* or *RP assembly* or *RP* shall mean an assembly containing two independently acting approved check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shut-off valves at the end of the assembly.
- (24) *Residential use* shall include single family dwellings, duplexes, multiplex housing and apartments where the individual units are each on a separate meter; or, in cases where two or more units are served by one meter, the units are full-time dwellings.
- (25) *Non-residential use* shall include all uses not specifically included in "residential uses" defined above.
- (26) *Service connection* is the point of delivery at which the water purveyor loses control of the water.
- (27) *System hazard* means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water supply or of a pollution or contamination that would have a detrimental effect on the quality of the potable water in the system.
- (28) *Tester* means a person that has met all TNRCC requirements to be a certified backflow prevention assembly technician.
- (29) *Thermal expansion* means heated water that does not have the space to expand.
- (30) *TNRCC* means Texas Natural Resource Conservation Commission.
- (31) *Used water* means water supplied by a public water system to a water user's system after it has passed through the service connection.

1:02. Purpose.

Pursuant to V.T.C.A., Administrative Code, tit. 30, §§ 290.44 and 290.46, it is the responsibility of the City of Colleyville to protect its drinking water supply by instituting and enforcing a cross connection program. The purpose of this ordinance, therefore, is to comply with the above-cited regulatory requirements and to protect the water supply of the City of Colleyville from contamination or pollution due to any cross connections.

1:03. Backflow prevention assembly requirements.

A certified cross connection inspector employed by or under contract with the city shall determine the type and location of backflow assembly to be installed within the city's water service area. The assembly will be required in each of the following circumstances, but the inspector is in no way limited to the following circumstances:

- (1) When the nature and extent of any activity at a premises, or the materials used in connection with any activity at a premises, or materials stored at a premises, could contaminate or pollute the potable water

supply.

- (2) When a premises has one or more cross connections as that term is defined in Section 1:01, paragraph (7).
- (3) When internal cross connections are present that are not correctable.
- (4) When intricate plumbing arrangements are present that make it impractical to ascertain whether cross connections exist.
- (5) When a premises has a repeated history of cross connections being established or re-established.
- (6) When entry to a premises is unduly restricted so that inspections for cross connections cannot be made with sufficient frequency to assure that cross connections do not exist.
- (7) When materials are being used such that, if backflow should occur, a health hazard could result.
- (8) When installation of an approved backflow prevention assembly is deemed by an inspector to be necessary to accomplish the purpose of these regulations.
- (9) When an appropriate cross connection survey report form has not been filed with the city manager or his designee.
- (10) In all new nonresidential construction there shall be installed an approved backflow assembly at the service connection. The type of the assembly will be commensurate with the degree of hazard as determined by an inspector.
- (11) When a building is constructed on commercial premises, and the end use of such building is not determined or could change, a reduced pressure principle backflow prevention assembly shall be installed at the service connection to provide protection of the public water supply in the event of the most hazardous use of the building.
- (12) Any used water return system that has received approval from the city manager or his designee.
- (13) If a point-of-use assembly has not been tested or repaired as required by this ordinance, a premises isolation assembly shall be required.
- (14) If an inspector determines that additions or rearrangements have been made to the plumbing system without the proper permits as required by the Plumbing Code, premise isolation shall be required.
- (15) All multistory commercial, industrial, or multidwelling buildings or any building with a booster pump or elevated storage tank.
- (16) Retrofitting shall be required on all high hazard connections and wherever else the city manager or his designee deems retrofitting necessary.
- (17) An approved double detector check valve assembly shall be the minimum protection for all new fire sprinkler systems and on any existing system where piping material is not approved for potable water use and/or that does not provide for periodic flow-through during each 24-hour period unless a variance has been issued in writing from the city manager or his designee. An RP assembly shall be installed if any solution other than the potable water can be introduced into the sprinkler system.

1:04. Mobile units.

- (1) A person who owns or operates any vehicle that uses water from the city's public water system shall obtain a use permit from the city manager or his designee before accessing the public water system. The city manager or his designee may require a fixed air gap or backflow assembly mounted either on the vehicle or piping or provide some means of backflow protection.
- (2) The failure of the owner or operator of the vehicle to comply with this ordinance shall be grounds for the city to revoke any permit or license required under the City Code to operate the vehicle or the business for which such vehicle is used.
- (3) The city manager or his designee may deny a use permit to any person who is not in compliance with this ordinance or who has a history of violating the requirements of this section.

1:05. Multiple service connections.

Any premises requiring multiple service connections for adequacy of supply and/or fire protection shall have a backflow assembly on each service connection. The assembly shall be commensurate with the degree of the highest potential hazard.

1:06. Plumbing Code.

As a condition of water service, customers shall install, maintain, and operate their piping and plumbing systems in accordance with the Plumbing Code. If there is a conflict between this ordinance and the Plumbing Code, the more restrictive provision shall apply.

1:07. Thermal expansion.

It is the responsibility of the property owner to eliminate the possibility of thermal expansion, if a closed system has been created by the installation of a backflow assembly.

1:08. Pressure loss.

Any water pressure drop caused by the installation of a backflow assembly shall not be the responsibility of the city. The city may give reasonable assistance to a property owner regarding information on adequate sizing of assemblies and proper plumbing practices to provide for required pressure and flow.

1:09. Residential service connections.

Any residential property that has been determined to have an actual or potential cross connection, shall be equipped with an approved backflow prevention assembly installed in accordance with this ordinance.

Part 2

2:01. Customer service inspection.

- (1) Pursuant to TNRCC Water System Regulations, the city, prior to providing continuous water service in each of the following circumstances, shall complete a customer service inspection for cross connection control:
 - (a) Water service to a newly constructed facility or previously nonexisting premises.
 - (b) After any material improvement to building(s) or premises.
 - (c) Any correction or addition to the plumbing of any facility or premises served by the city.
 - (d) The regulatory authority deems it necessary.
- (2) Permanent water service shall not be supplied to a new construction facility(s) until after the customer service inspection is completed.

Part 3

3:01. Certification of cross connection inspectors.

- (1) Inspectors performing cross connection control duties within the City of Colleyville must be approved by the city manager or his designee and shall meet the following requirements:
 - (a) Be employed by or under contract with the City of Colleyville;
 - (b) Attend a cross connection control inspector certification-training course approved by the City of Colleyville.

3:02 Certification of backflow prevention assembly testers.

- (1) All backflow assembly testers operating within the city shall be certified in accordance with all applicable regulations of TNRCC and meet the requirements of the City of Fort Worth. No person shall operate as a backflow prevention assembly tester within the city without first being annually registered by the city manager or his designee.
- (2) At the time of certification, recertification, and upon the city manager or his designee's request, each person certified as a backflow prevention assembly tester shall furnish evidence to show that he/she is insured and bonded to perform services on private property, and has current all licenses required by the State of Texas and the city to perform the contemplated services.
- (3) Persons certified as backflow prevention assembly testers shall meet the following requirements:
 - (a) Hold a TNRCC-approved certification;
 - (b) Meet the requirements of the City of Fort Worth.

Part 4

4:01. Certified backflow prevention assembly tester responsibilities.

- (1) No certified backflow assembly tester shall operate within the city without first registering with the city manager or his designee.

- (2) A registration shall remain in effect provided:
 - (a) The tester maintains eligibility for registration and certification;
 - (b) The tester is currently registered with the City of Fort Worth;
 - (c) Registration is not revoked by the city manager or his designee.
- (3) Upon recertifying, a tester shall renew his/her registration with the city manager or his designee. If a certification remains expired for a period of one year, the tester shall reestablish registration eligibility.
- (4) Each applicant for registration shall:
 - (a) Provide evidence that the applicant is registered with the City of Fort Worth.
 - (b) Identify all test gauges the applicant will use in testing backflow prevention assemblies.
- (5) A registered tester must stay in compliance with all requirements of the City of Fort Worth for certified and registered testers.
- (6) After notice and hearing, the city manager or his designee may revoke a registration if the city manager or his designee determines that the tester:
 - (a) Has made false, incomplete, or inaccurate assembly testing reports;
 - (b) Has used inaccurate gauges;
 - (c) Has used improper testing procedures;
 - (d) Has expired insurance;
 - (e) Is not in compliance with safety regulations;
 - (f) Has failed to register the serial numbers of his/her test kits or failed to calibrate gauges annually;
 - (g) Has violated any other provision of this section; or
 - (h) Has failed to comply with the requirements of the City of Fort Worth or has been removed from the City of Fort Worth tester list.

Part 5

5:01. Cost of compliance.

The cost of complying with these regulations shall be the responsibility of the property owners and their lessees. These costs include but are not limited to purchasing, installation, testing and repair of the assembly. These costs shall include point-of-use and premises isolation assemblies. Any cost incurred by the city to enforce this ordinance is the responsibility of the property owners and their lessees.

Part 6

ASSEMBLY REQUIREMENTS

6:01. Testing of assemblies.

- (1) The city manager or his designee will cause to be inspected and tested, all assemblies in each of the following circumstances:
 - (a) Immediately after installation;
 - (b) A minimum of once a year for all reduced pressure principle assemblies;
 - (c) A minimum of once a year for all double check assemblies installed on commercial or industrial applications;
 - (d) Immediately after repair;
 - (e) After assembly is moved.
- (2) Assemblies may be required to be tested more frequently if the city manager or his designee deems necessary.
- (3) All assembly testing shall be performed in accordance with TNRCC-approved test procedures by a certified and registered backflow prevention assembly tester as specified in this ordinance.
- (4) All backflow assembly testers shall be registered with the City of Colleyville.
- (5) It is the responsibility of the property owner to have all assemblies tested in accordance with this ordinance.
- (6) The city shall not be liable for any damage to an assembly or any property that may occur.

6:02. Maintenance of assemblies.

- (1) A person who owns, operates, or manages premises in which required backflow prevention assemblies are

installed, shall maintain such assemblies in proper working order at all times, including repair as required. All maintenance and repair of assemblies shall be done in accordance with all applicable regulations of the TNRCC and this ordinance.

- (2) Backflow prevention assemblies shall be maintained in a manner that allows them to be tested by a method that has been approved by TNRCC.

6:03. Installation requirements.

Backflow prevention assemblies shall be installed in accordance with the following requirements, to ensure their proper operation and accessibility:

- (1) Backflow prevention assemblies shall be installed in accordance with the Plumbing Code and this ordinance. The assembly installer shall obtain the required plumbing permits prior to installation and shall have the assembly inspected by a certified cross connection inspector and as required by the Plumbing Code.
- (2) No part of a reduced pressure principal backflow prevention assembly shall be submerged or installed in a location subject to flooding. If a double check valve assembly is installed in a vault, brass plugs shall be maintained in the test ports at all times and adequate drainage shall be provided.
- (3) Assemblies shall be installed at the point of delivery of the water supply, before any branch in the line, and on private property located just inside the boundary of the city's right-of-way. An inspector may specify other areas for installation of the assembly.
- (4) The assembly shall be protected from freezing and other severe weather conditions.
- (5) All backflow prevention assemblies shall be of a type and model approved by the city manager or his designee.
- (6) All vertical installations shall be approved in writing by the city manager or his designee prior to installation.
- (7) The assembly shall be readily accessible with adequate room for maintenance and testing.
- (8) If the city manager or his designee grants written permission to install the backflow assembly inside of a building, the assembly shall be readily accessible between 8:00 a.m. and 5:00 p.m., Monday through Friday.
- (9) If an assembly is installed pursuant to subsection (1)(h), and is four inches or larger and is installed five feet or higher above the floor, it shall be equipped with a rigidly and permanently installed scaffolding acceptable to the city manager or his designee. This installation shall also meet all applicable requirements set out by the U.S. Occupational Safety and Health Administration and the State of Texas occupational safety and health laws.
- (10) Upon completion of installation, the property owner shall notify the city manager or his designee. The property owner shall register all backflow assemblies with the city manager or his designee. Registration shall consist of date of installation, manufacturer, model, serial number of the backflow prevention assembly, and initial test report.
- (11) Assemblies installed more than five feet above floor level shall have a suitable platform for use by testing or maintenance personnel.
- (12) Lines shall be thoroughly flushed prior to installation. A strainer with blowout tapping may be required ahead of the assembly.
- (13) The property owner assumes all responsibility for leaks and damage. The owner shall also see that any vault is kept reasonably free of silt and debris.

Part 7

INSTALLATION STANDARDS AND SPECIFICATIONS

7:01. Reduced pressure principle backflow prevention assembly (RP).

All RP assemblies will be tested in each of the following circumstances immediately upon installation, after repair, and annually.

(See exhibit A [of Ordinance No. O-98-1133]: Std. Detail No. 7:01-1, "Reduced Pressure Principal Large Assembly," Std. Detail No. 7:01-2, "Relief Valve Discharge Rates," Std. Detail No. 7:01-3, "Strainers," and Std. Detail No. 7:01-4,

"Reduced Pressure Principal Small Assembly.")

- (1) RP's may be utilized at premises where a substance is handled that would be hazardous to the public health if introduced into the potable water system. An RP is normally used in locations where an air gap is impractical. An RP is effective against both backsiphonage and backpressure.
- (2) RP's shall be sized to provide an adequate supply of water and pressure for the premises being served.
- (3) Premises where non-interruption of water supply is critical shall be provided with two assemblies of the same type installed in parallel. They shall be sized in such a manner that either assembly will provide the minimum water requirements while the two together will provide the maximum flow required.
- (4) Bypass lines are prohibited. Pipefittings that could be used for connecting a bypass line shall not be installed.
- (5) The assembly shall be readily accessible for testing and maintenance and shall be located in an area where water damage to buildings or furnishings will not occur from relief valve discharge. An approved air gap funnel assembly may be used to direct minor discharges away from the assembly; this assembly will not control flow in a continuous relief situation. Drain lines to accommodate full relief valve discharge flow should be considered.
- (6) Enclosures shall be designed for ready access and sized to allow for the minimum clearances established below. Daylight drain ports shall be provided to accommodate full pressure discharge from the assembly.
- (7) All assemblies larger than two inches shall have a minimum of 12 inches on the back side, 24 inches on the test cock side, and the relief valve opening shall be at least 12 inches plus nominal size of assembly above the floor or highest possible water level. Headroom of six feet is required in vaults without a fully removable top. A minimum access opening of 24 inches square is required on all vault lids. All assemblies two inches and smaller shall have at least a six inch clearance on all sides.
- (8) All RP assemblies shall be tested in accordance with this ordinance.
- (9) Variances from these specifications will be evaluated on a case-by-case basis. Any deviations shall be prohibited without prior written approval of the city manager or his designee.
- (10) RP assemblies may be installed in a vault only if relief valve discharge can be drained to daylight through a boresight type drain. The drain shall be of adequate capacity to carry the full rated flow of the assembly and shall be screened on both ends.
- (11) An approved air gap shall be located at the relief valve orifice of RP assemblies. This air gap shall be at least twice the inside diameter of the incoming supply line as measured vertically above the top rim of the drain and in no case less than one inch.

7:02. Double check valve backflow prevention assembly (DC).

(See exhibit B [of Ordinance No. O-98-1133]: Std. Detail No. 7:02-1, "Double Check Valve Large Assembly," and Std. Detail No. 7:02-2, "Double Check Valve Small Assembly.")

- (1) Double check valve assemblies may be utilized at premises where a substance is handled that would be objectionable but not hazardous to health if introduced into the potable water system.
- (2) DCs shall be sized to provide an adequate supply of water and pressure for the premises being served.
- (3) Premises where non-interruption of water supply is critical shall be provided with two assemblies of the same type installed in parallel. They shall be sized in such a manner that either assembly will provide the minimum water requirements while the two together will provide the maximum flow required.
- (4) Bypass lines are prohibited. Pipefittings that could be used for connecting a bypass line shall not be installed.
- (5) The assembly shall be readily accessible with adequate room for testing and maintenance. DCs may be installed below grade, providing all test cocks are fitted with brass pipe plugs. All vaults shall be well drained, constructed of suitable materials, and sized to allow for the minimum clearances established below.
- (6) Assemblies two inches and smaller shall have at least a three-inch clearance below and on both sides of the assembly, and if located in a vault, the bottom of the assembly shall be not more than 24 inches below grade. All assemblies larger than two inches shall have a minimum clearance of 12 inches on the back side, 24 inches on the test cock side, and 12 inches below the assembly. Headroom of six feet is required in vaults without a fully removable top. A minimum access opening of 24 inches square is required on all vault lids.
- (7) Vertical installations are allowed on sizes up to and including four inches that meet the following requirements:

- (a) Internally spring-loaded check valves;
 - (b) Flow is upward through assembly;
 - (c) Manufacturer states their assembly can be used in a vertical position; and
 - (d) Approved by the city manager or his designee.
- (8) All DCs shall be tested in accordance with this ordinance.
- (9) Variances from these specifications will be evaluated on a case-by-case basis. No deviations shall be permitted without prior written approval of the city manager or his designee.

7:03. Double detector check valve assembly (DDC).

Double detector check valve assemblies may be utilized in all installations requiring a double check valve assembly and detector metering. DDCs shall comply with the installation requirements applicable for double check valve assemblies (DCs). (See exhibit C [of Ordinance No. O-98-1133]: Standard Detail No. 7:03-1, "Double Check Detector Assembly.")

7:04. Pressure vacuum breaker assembly (PVB).

(See exhibit D [of Ordinance No. O-98-1133]: Standard Detail No. 7:04-1, "Pressure Vacuum Breaker.")

- (1) PVBs may be utilized at point-of-use protection only and where a substance is handled that would be objectionable but not hazardous to health if introduced into the potable water system. PVBs protect against backsiphonage only and shall not be installed where there is potential for backpressure.
- (2) The assembly shall be installed a minimum of 12 inches above the highest use outlet or overflow level downstream from the assembly.
- (3) PVBs shall not be installed in an area subject to flooding or where damage would occur from water discharge.
- (4) The assembly shall be readily accessible for testing and maintenance, with a minimum clearance of 12 inches all around the assembly.
- (5) PVBs shall be located between 12 inches and 60 inches above ground level.
- (6) A strainer with blowout tapping may be required ahead of the assembly.
- (7) All PVBs must be tested in compliance with this ordinance.
- (8) Variances from these specifications will be evaluated on a case by case basis. No deviations shall be permitted without prior written approval of the city manager or his designee.

7:05. Atmospheric vacuum breaker (AVB).

(See exhibit E [of Ordinance No. O-98-1133]: Standard Detail No. 7:05-1, "Atmospheric Vacuum Breaker.")

- (1) AVB's provide minimal protection and are approved for very low hazard application only. AVBs protect against backsiphonage only and are prohibited where there is potential for backpressure.
- (2) The assembly shall be installed a minimum of six inches above the highest use outlet or overflow level downstream from the assembly.
- (3) Shutoff valves downstream from the assembly are prohibited.
- (4) AVB's shall be allowed only for those applications where there is less than 12 hours per day continuous use.
- (5) AVB's shall not be installed in an area subject to flooding or where damage may occur from water discharge.
- (6) AVB's shall be allowed for point-of-use protection only in accordance with the Plumbing Code. AVB's are not recognized as adequate protection by the city manager or their designee, so additional protection may be required.

7:06. Air gap separation.

(See exhibit F [of Ordinance No. O-98-1133]: Standard Detail No. 7:06-1, "Air Gap Separation.")

- (1) Air gap separations provide maximum protection from backflow hazards and may be utilized at premises where a substance is handled that would be hazardous to health if introduced into the potable water system.
- (2) An air gap separation shall be at least twice the diameter of the supply pipeline measured vertically above the top rim of the receiving vessel in no case less than one inch. If splashing is a problem, tubular screens may be attached or the supply line may be cut at a 45-degree angle. The air gap distance is measured from the bottom of the angle. Hoses shall not be allowed.
- (3) Air gap separations shall not be altered in any way and shall be available for inspection at all reasonable times.
- (4)

Sidewalls, ribs or similar obstructions do not affect air gaps when spaced from the inside edge of the spout opening a distance greater than three times the diameter of the effective opening for a single, or a distance greater than four times the effective opening for two intersecting walls.

- (5) In cases where there are three or more sidewalls, ribs or similar obstructions extending from the water surface to or above the horizontal plane of the spout opening other than as specified in paragraph (4) above, the air gap shall be measured from the top of the wall.
- (6) The effective opening shall be the minimum cross-sectional area at the seat of the control valve or the supply pipe or tubing which feeds the assembly or outlet. If two or more lines supply one outlet, the effective opening shall be the sum of the cross-sectional areas of the individual supply lines or the area of the single outlet, whichever is smaller.

Part 8

8:01. Responsibilities of owners and renters.

It is the responsibility of all property owners and lessees to abide by the conditions of this ordinance. The owner of leased or rented premises is responsible for the installation, testing and repair of all backflow assemblies on the premises.

Part 9

9:01. Access to premises.

- (1) Every person provided water service by the city directly or indirectly shall, during the hours of 8:00 a.m. through 5:00 p.m., permit the city manager, or his designee, to enter their premises and buildings for the purpose of inspecting pipes and fixtures and the manner in which the water is used to determine compliance with this ordinance.
- (2) If any water user refuses access to their premises for inspection by an inspector, the water user shall install a reduced pressure principle assembly at the service connection to the premises.
- (3) Any temporary or permanent obstruction to safe and easy access to the premises to be inspected shall be promptly removed by the water user at the written or verbal request of the city manager or his designee and shall not be replaced. The costs of clearing such access shall be borne by the user.

Part 10

10:01. Right-of-way encroachment.

- (1) No person shall install or maintain a backflow prevention assembly upon or within any city right-of-way except as provided by this section.
- (2) No encroachment agreement as required by the "Buildings" chapter of the City Code will be necessary, but all other permits required by the City Code to perform work in the right-of-way shall be obtained.
- (3) A backflow prevention assembly required by this ordinance may be installed upon or within any city right-of-way only if the owner proves to the city that there is no other feasible location for installing the assembly, and installing it in the right-of-way will not interfere with traffic or utilities. The city retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.
- (4) Any assembly or portion of an assembly, which extends above ground shall be located no closer than 18 inches to the face of the curb.
- (5) A property owner shall, at the request of the city and at the owner's sole expense, relocate a backflow prevention assembly which encroaches upon any city right-of-way when such relocation is necessary for street or utility construction or repairs or for purposes of public safety.

Part 11

11:01. Enforcement and penalties.

- (1) The city manager or his designee and the city attorney, and each of them, are hereby authorized to enforce the provision of this ordinance by any one or more of the enforcement mechanisms set forth in this ordinance.
- (2) The inspectors, agents or representatives of the city charged with enforcement of this ordinance shall be deemed to be performing a governmental function for the benefit of the general public and neither the city, the city manager or his designee, nor the individual inspector, agent, or representative of the city engaged in

inspection or endorsement activities under this ordinance when acting in good faith and without malice shall ever be held liable for any loss or damage, whether real or asserted, caused, or alleged to have been caused, as a result of the performance of such governmental function.

- (3) Failure on the part of any customer to discontinue the use of all cross connections and to physically separate cross connections is sufficient cause for the immediate discontinuance of public water service to the premises.

11:02. Emergency suspension of utility service.

- (1) The city manager or his designee may, without prior notice, suspend water service to any premises when such suspension is necessary to stop an actual or threatened backflow which:
 - (a) Presents or may present imminent and substantial danger to the environment or to the health or welfare of persons; or
 - (b) Presents or may present imminent and substantial danger to the city's public water supply.
- (2) As soon as is practicable after the suspension of service, the city manager or his designee shall notify the owner or person in charge of the premises of the suspension in person or by certified mail, return receipt requested, and shall order such person to correct the cross connection which allowed the backflow to occur. When time permits, the city manager or his designee should also notify the owner or person in charge prior to suspending water service.
- (3) If the person fails to comply with an order issued under subsection (2), the city manager or his designee may take such steps as the city manager or his designee deems necessary to prevent or minimize damage to the public water supply or to minimize danger to persons.
- (4) The city manager or his designee shall not reinstate suspended services until:
 - (a) The person presents proof, satisfactory to the city manager or his designee, that the backflow has been eliminated and its cause determined and corrected;
 - (b) The person pays the city for all costs the city incurred in responding to the backflow or threatened backflow; and
 - (c) The person pays the city for all costs the city will incur in reinstating service.
- (5) A person whose service has been suspended may appeal such enforcement action to the city manager or his designee, in writing, within ten days of notice of the suspension.
- (6) A person commits an offense if the person reinstates water service to premises suspended pursuant to this section, without the prior approval of the city manager or his designee.
- (7) The city may obtain a lien against the property to recover its response, abatement, and remediation costs.
- (8) The remedies provided by this section are in addition to any other remedies set out in this ordinance. Exercise of this remedy shall not be a bar against, or a prerequisite for, taking other action against a violator.

11:03. Non-emergency termination of water supply.

- (1) The city manager or his designee may terminate the city-provided water supply of any water user who violates the following conditions:
 - (a) Refusing the city manager or his designee reasonable access to the water user's premises for the purpose of inspection;
 - (b) Hindering or denying the city manager or his designee access to backflow prevention assemblies;
 - (c) Failing to install a reduced pressure principle assembly as required by Part 9:01;
 - (d) Failing to install and maintain backflow prevention assemblies in compliance with this ordinance; or
 - (e) Failing to install, maintain, and operate their piping and plumbing systems in accordance with the Plumbing Code.
- (2) The city manager or his designee will notify a water user of the proposed termination of its water supply. The water user may petition the city manager or his designee for reconsideration and hearing within ten days of termination of service.
- (3) Exercise of this enforcement option by the city manager or his designee shall not be a bar to, or a prerequisite for, taking any other action against the water user.
- (4) The city manager or his designee shall not reinstate suspended services until:
 - (a) The person presents proof, satisfactory to the city manager or his designee, that the backflow has been eliminated and its cause determined and corrected; and
 - (b) The person pays the city for all costs the city will incur in reinstating service.