

First Reading
January 28, 2020
Item No. 7.13

Second Reading
February 11, 2020
Item No. 7.9

ORDINANCE NO. 2020-00017

AN ORDINANCE AMENDING CHAPTER 28.10 OF THE CODE OF ORDINANCES OF THE CITY OF LUBBOCK, TEXAS WITH REGARD TO ADOPTION OF THE 2015 INTERNATIONAL PLUMBING CODE AND PROVIDING FOR CERTAIN AMENDMENTS THERETO TO MEET LOCAL CONDITIONS; PROVIDING A PENALTY; PROVIDING A SAVINGS CLAUSE; AND PROVIDING FOR PUBLICATION.

WHEREAS the City Council of the City of Lubbock, Texas deems it in the best interest of the health, safety, and welfare of the citizens of Lubbock to adopt the 2015 International Plumbing Code for the City of Lubbock with certain amendments thereto to meet local conditions; NOW THEREFORE:

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LUBBOCK:

SECTION 1. THAT Chapter 28, Article 28.10 of the Code of Ordinances of the City of Lubbock is hereby amended to read as follows:

ARTICLE 28.10 PLUMBING CODE
Division 1. Generally

28.10.001. Adopted.

The 2015 Edition of the International Plumbing Code, as published by the International Code Council, Inc., as hereinafter amended, including Appendices C, D, E, and F is hereby adopted as the plumbing code of the City of Lubbock, Texas. A copy of said plumbing code is attached hereto and incorporated herein as though set out herein in detail. References to the Plumbing Code in this chapter shall mean the 2015 Edition of the International Plumbing Code. One copy of the 2015 International Plumbing Code shall be filed with the City Secretary and a copy shall be maintained in the office of the City Building Official. All such copies, with the amendments thereto, shall be open to public inspection during the usual hours of business of the offices where they are maintained.

28.10.002. Coordination of administrative provisions.

The administrative provisions contained in chapter 28, articles 28.01 through 28.08 of this Code of Ordinances are applicable to this article; however, for purposes of administering provisions related more specifically to the regulation of plumbing systems installation, these supplemental administrative provisions have been provided. Except as amended or supplemented within sections 28.10.002, 28.10.003, and 28.10.051 through 28.10.056, the entire text of chapter 1 of the 2015 International Plumbing Code is deemed to be incorporated herein as though set out herein in detail. Where a conflict arises between a provision contained within sections 28.10.002, 28.10.003, and 28.10.051 through 28.10.056 and articles 28.01 through 28.08 of this

Code of Ordinances, it is the intent that the more specific shall govern, as determined by the building official.

28.10.003 Supplemental administrative amendments.

(a) Fee schedule. Section 106.6.2 is hereby amended by inserting the following fee schedule:

PLUMBING FEES*	
New Construction:	\$0.06 per sq. ft. of gross floor area under roof, \$50.00 minimum. (Where more than one inspection is required, an additional fee of \$15.00 shall be assessed for each additional inspection)
Additions to floor area	As for new construction
Alterations & remodeling (no change in building area):	\$2.00 per \$1,000.00 valuation, \$50.00 minimum (Where more than one inspection is required, an additional fee of \$15.00 shall be assessed for each additional inspection) (See Note 3)
Total re-plumb:	As for new const.
Miscellaneous permits for new installations, replacement and repair of: Water heaters, water lines, sewer lines, gas lines, water softeners, irrigation systems, fixed appliances, fixtures, etc. requiring inspection approval:	\$50.00 (Where more than one inspection is required, an additional fee of \$15.00 shall be assessed for each additional inspection) Service line tap fees, or adjustments in grade, where needed, may involve extra fees. Contact the appropriate utility department.
Permit fees, work commencing prior to permit approval:	
Renewal of expired or involuntarily terminated permits:	As for building permit fees (see article 28.05), except that permit fee calculations shall be based on this section.
Permit transfer fee:	
Re-inspection Fees:	

*The fees in this schedule are all-inclusive for the collective plumbing work (water, DWV, & fuel gas) performed in a building; they are not intended to be charged in addition to the fees specified in article 28.15 of this chapter.

(b) Administrative amendments and cross-references to articles 28.01 through 28.08. The following administrative provisions within chapter 1 of the International Plumbing Code are hereby stricken, and the corresponding provisions within articles 28.01 through 28.08 of this Code of Ordinances shall govern, as indicated in table 28.10.003 below:

TABLE 28.10.003		
ADMINISTRATIVE PROVISIONS CROSS-REFERENCE		
2015 International Plumbing Code Section	Section Heading/Subject	Refer to Lubbock Code of Ordinances Chapter Section
106.6.3	Fee refunds	28.05.109
108.4	Violation penalties	28.02.006
108.5	Stop work orders	28.02.007
109.1 through 109.7	Means of appeal	2.03.491 through 2.03.495

Sec. 28.10.004 Technical amendments

(a) Protection against physical damage. Section 305.6 is hereby amended to read as follows:

Section 305.6 Protection against physical damage. In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1.5 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by steel shield plates. Such shield plates shall have a thickness of not less than 0.0575 inch (1.463 mm) (No. 16 gage). Such plates shall cover the area of the pipe where the member is notched or bored.

(b) Over-excavation. Section 306.2.1 is hereby amended to read as follows:

306.2.1 Over-excavation. Where trenches are excavated below the installation level of the pipe such that the bottom of the trench does not form the bed for the pipe, the trench shall be backfilled to the installation level of the bottom of the pipe placed in layers of 6 inches (152 mm) maximum depth and such backfill shall be compacted after each placement. The backfill material may consist of sand or fine gravel, or excavated material that complies with section 306.3.

- (c) Drainage and vent water test. Section 312.2 is hereby amended to read as follows:

312.2 Drainage and vent water test. A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but no section shall be tested with less than a five-foot head of water above floor height. In testing successive sections, at least the upper 10 feet of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 10 feet of the system, shall have been submitted to a test of less than a five-foot head of water above floor height. The water shall be held kept in the system, or in the portion under test, for at least 15 minutes before inspection starts. The system shall then be tight at all points.

- (d) Gravity sewer test. Section 312.6 is hereby amended to read as follows:

312.6 Gravity sewer test. Gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, filling the building sewer with water, testing with not less than a 5-foot head of water and maintaining such pressure for 15 minutes.

- (e) Ductless mini-split system traps. Delete Section 314.2.4.1.

- (f) Sheet lead. Section 402.4 is hereby amended to read as follows:

402.4 Sheet lead. Sheet lead for pans shall not weigh less than two and one-half (2-1/2) pounds per square foot coated with an asphalt paint or other approved coating.

- (g) Sheet lead. Section 417.5.2.3 is hereby amended to read as follows:

417.5.2.3. Sheet lead. Sheet lead shall not weigh less than two and one-half (2-1/2) pounds per square foot coated with an asphalt paint or other approved coating. The lead sheet shall be insulated from conducting substances other than the connecting drain by 15-pound asphalt felt or its equivalent. Sheet lead shall be joined by burning.

- (h) Water hammer. Section 604.9 is hereby amended to read as follows:

604.9 Water hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. An air chamber or a water-hammer arrestor shall be installed where quick-closing valves are utilized, unless otherwise approved. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010.

- (i) Solvent cementing. Section 605.22.3 is hereby amended to read as follows:

605.22.3 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Clear primer in lieu of purple is acceptable where joints are accessible. Solvent cement not purple in color and conforming to ASTM D 2564 or CSA CAN/CSA-B137.3 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent-cement joints shall be permitted above or below ground.

- (j) Location of full-open valves. Section 606.1 is hereby amended to read as follows:

606.1 Location of full-open valves. Full open valves shall be installed in the following locations:

1. On the building water service pipe from the public water supply.
2. On the water distribution supply pipe at the entrance into the structure if the water meter is more than 100 feet from the building.
3. On the water supply pipe to a gravity or pressurized water tank.
4. On the water supply pipe to every water heater.

- (k) Location of shutoff valves. Section 606.2 is hereby amended to read as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

1. On the fixture supply to each plumbing fixture in other than bathtubs and showers in one- and two-family and multiple-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
2. On the water supply pipe to each appliance or mechanical equipment.

- (l) Slope of horizontal drainage pipe. Table 704.1 is hereby amended to read as follows:

**TABLE 704.1
SLOPE OF HORIZONTAL DRAINAGE PIPE**

Size (inches)	Minimum slope (inch per foot)
2-1/2 or less	1/4
3 to 5	1/8
6 or larger	1/16

- (m) Solvent cementing. Section 705.11.2 is hereby amended to read as follows:

705.11.2 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Clear primer in lieu of purple primer is acceptable where joints are accessible. Solvent cement not purple in color and conforming to ASTM D 2564 CSA CAN/CSA-B137.3, CSA CAN/CSA-B181.2 or CSA CAN/CSA-BV182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent-cement joints shall be permitted above or below ground.

Exception: A primer is not required where both of the following conditions apply:

1. The solvent cement used is third-party certified as conforming to ASTM D 2564.
2. The solvent cement is used only for joining PVC drain, waste and vent pipe and fittings in non-pressure applications in sizes up to and including 4 inches (102 mm) in diameter.

- (n) Installation of fittings. Section 706.3 is hereby amended to read as follows:

706.3 Installation of fittings. Fittings shall be installed to guide sewage and waste in the direction of flow. Change in direction shall be made by fittings installed in accordance with Table 706.3. Change in direction by combination fittings, side inlets or increasers shall be installed in accordance with Table 706.3 based on the pattern of flow created by the fitting. Double sanitary tee patterns shall not receive the discharge of back-to-back water closets and fixtures or appliances with pumping action discharge.

- (o) Building drains and sewers. Table 710.1(1) is hereby amended to read as follows:

Table 710.1(1) BUILDING DRAINS AND SEWERS

MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN

Diameter of pipe (inches)	Slope per foot			
	1/16 inch	1/8 inch	1/4 inch	1/2 inch
1-1/4	–	–	1	1
1-1/2	–	–	3	3
2	–	–	21	26
2-1/2	–	–	24	31
3	–	36	42	50
4	–	180	216	250
5	–	390	480	575
6	620	700	840	1000
8	1400	1600	1920	2300
10	2500	2900	3500	4200
12	3900	4600	5600	6700
15	7000	8300	10,000	12,000
a. The minimum size of any building drain serving a water closet shall be 3 inches.				

(p) Permit requirements. Section 717.1.1 is hereby amended to read as follows:

717.1.1 Permit requirements. A licensed plumbing contractor shall obtain a permit under this code prior to the work being performed. The permit application shall indicate if work in the City right-of-way will be necessary. If issued, the permit will grant the licensed plumbing contractor temporary “permitted user” status, as contemplated by Section 36.09 of the Lubbock Code of Ordinances, for limited access to the city right-of-way. Excavation in the City right-of-way subjects the permittee to all applicable requirements of Section 36.09 as well as this code, save and except the requirement for a separate right-of-way permit. The limited access is restricted to unpaved areas only and is defined as an excavation that is hand-dug only (no mechanical excavation) and no more than three (3’) feet in width adjacent to the property line. The licensed plumbing contractor has the option of hiring a “permitted user”, as anticipated by Section 36.09, to perform the work in the public right-of-way.

(q) Roof extension. Section 903.1 is hereby amended to read as follows:

903.1 Roof Extension. All open vent pipes that extend through a roof shall be terminated not less than 10 inches above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purpose, open vent pipes shall terminate not less than 7 feet above the roof.

- (r) **1001.1 Scope (Traps, Interceptors and Separators).** Section 1001.1 is hereby amended to read as follows:

1001.1 Scope. This chapter shall govern the material and installation of traps, interceptors and separators. See also divisions 5 and 6 of article 22.04 (wastewater system) of the Lubbock Code of Ordinances.

- (s) **Storm drainage-general (tests).** Section 1101.4 is hereby amended to read as follows:

1101.4 Tests. The building storm drain shall be tested within the building only and shall not require 5-foot head, but roof drain level only.

- (t) **Roof design.** Section 1101.7 is hereby amended to read as follows:

1101.7 Roof design. Roofs shall be designed for the maximum possible depth of water that will pond thereon as determined by the relative levels of roof deck and overflow weirs, scuppers, edges or serviceable drains in combination with the deflected structural elements *in accordance with Section 1611 of the International Building Code*. In determining the maximum possible depth of water, all primary roof drainage means shall be assumed to be blocked. The maximum possible depth of water on the roof shall include the height of the water required above the inlet of the secondary roof drainage means to achieve the required flow rate of the secondary drainage means to accommodate the design rainfall as required by Section 1106.

- (u) **Strainers.** A new section 1105.3 is hereby added to read as follows:

1105.3 Strainers. Roof drains shall have strainers extending not less than 4 inches (102 mm) above the surface of the roof immediately adjacent to the roof drain. Strainers shall have an available inlet area, above roof level, of not less than one and one-half times the area of the conductor or leader to which the drain is connected.

- (v) **Flat decks.** A new section 1105.4 is hereby added to read as follows:

1105.4 Flat decks. Roof drain strainers for use on sun decks, parking decks and similar areas that are normally serviced and maintained shall comply with Section 1105.3 or shall be of the flat-surface type, installed level with the deck, with an available inlet area not less than two times the area of the conductor or leader to which the drain is connected.

(w) Size of conductors, leaders and storm drains. Section 1106 is hereby deleted and replaced with the following:

**SECTION 1106
SIZE OF CONDUCTORS, LEADERS
AND STORM DRAINS**

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers in Lubbock, Texas, shall be based on a minimum 100-year hourly rainfall rate of 3.3 inches (84 mm) per hour.

1106.2 Vertical conductors and leaders. Vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with Table L1106.2(1) and Table L1106.2(2).

**TABLE L1106.2(1)
SIZE OF CIRCULAR VERTICAL CONDUCTORS AND
LEADERS**

DIAMETER OF LEADER (inches) ^a	HORIZONTALLY PROJECTED ROOF AREA (square feet)		
	Rainfall Rate (inches per hour)		
	3	3.3	4
2	960	888	720
3	2,930	2,711	2,200
4	6,130	5,671	4,600
5	11,530	10,666	8,650
6	17,995	16,647	13,500
8	38,660	35,762	29,000

a. Sizes indicated are the diameter of circular piping. This table is applicable to piping of other shapes, provided the cross-sectional shape fully encloses a circle of the diameter indicated in this table. For rectangular leaders, see Table L1106.2(2). Interpolation is permitted for pipe sizes that fall between those listed in this table.

b. The Rate of Rainfall for Lubbock, Texas, is 3.3 inches per hour, as shown in Appendix B of the 2015 International Plumbing Code.

**TABLE L1106.2(2)
SIZE OF RECTANGULAR VERTICAL CONDUCTORS AND
LEADERS**

DIMENSIONS OF COMMON LEADER SIZES width x length (inches) ^{a,b}	HORIZONTALLY PROJECTED ROOF AREA (square feet)		
	Rainfall Rate (inches per hour)		
	3	3.3	4
1 3/4 X 2 1/2	1,130	1,046	850
2 x 3	1,840	1,702	1,380

2 3/4 X 4 1/4	4,270	3,949	3,200
3 x 4	4,400	4,070	3,300
3 1/2 X 4	5,300	4,901	3,970
3 1/2 X 5	7,100	6,566	5,320
3 1/4 X 4 3/4	7,320	6,771	5,490
3 3/4 X 5 1/4	8,500	7,864	6,380
3 1/2 X 6	9,260	8,564	6,940
4 x 6	10,990	10,165	8,240
5 1/2 X 5 1/2	14,760	13,653	11,070
7 1/2 X 7 1/2	33,500	30,986	25,120

- a. Sizes indicated are nominal width x length of the opening for rectangular piping.
- b. For shapes not included in this table, Equation 11-1 shall be used to determine the equivalent circular diameter, D_e , of rectangular piping for use in interpolation using the data from Table L1106.2(1).

$$D_e = (\text{width} \times \text{length})^{1/2} \quad (\text{Equation 11-1})$$

where:

D_e = equivalent circular diameter; D_e , width, and length are in inches.

- c. The Rate of Rainfall for Lubbock, Texas, is 3.3 inches per hour, as shown in Appendix B of the 2015 International Plumbing Code.

1106.3 Building storm drains and sewers. The size of the building storm drain, building storm sewer and their horizontal branches having a slope of one-half unit or less vertical in 12 units horizontal (4-percent slope) shall be based on the maximum projected roof area in accordance with Table L1106.3. The slope of horizontal branches shall be not less than one-eighth unit vertical in 12 units horizontal (1-percent slope) unless otherwise approved.

**TABLE L1106.3
SIZE OF HORIZONTAL STORM DRAINAGE PIPING**

SIZE OF HORIZONTAL PIPING (inches)	HORIZONTALLY PROJECTED ROOF AREA (square feet)		
	Rainfall Rate (inches per hour)		
	3	3.3	4
1/8 unit vertical in 12 units horizontal (1 percent slope)			
3	1,096	1,014	822
4	2,506	2,294	1,800
5	4,453	4,119	3,340
6	7,133	6,598	5,350
8	15,330	14,181	11,500
10	27,600	25,530	20,700
12	44,400	41,070	33,300
15	72,800	68,810	59,500
1/4 unit vertical in 12 units horizontal (2 percent slope)			
3	1,546	1,430	1,160
4	3,533	3,268	2,650
5	6,293	5,821	4,720
6	10,066	9,311	7,550
8	21,733	20,103	16,300
10	38,950	36,025	29,200
12	62,600	57,920	47,000
15	112,000	103,600	84,000
1/2 unit vertical in 12 units horizontal (4 percent slope)			
3	2,295	2,100	1,644
4	5,010	4,635	3,760
5	8,900	8,234	6,680
6	13,700	12,800	10,700
8	30,650	28,355	23,000
10	55,200	51,060	41,400
12	88,800	82,140	66,600
15	158,800	146,860	119,000

The Rate of Rainfall for Lubbock, Texas, is 3.3 inches per hour, as shown in Appendix B of the 2015 International Plumbing Code.

1106.4 Vertical walls.

In sizing roof drains and storm drainage piping, one-half of the area of any vertical wall that diverts rainwater to the roof shall be added to the projected roof area for inclusion in calculating the required size of vertical conductors, leaders and horizontal storm drainage piping.

1106.5 Parapet wall scupper location.

Parapet wall roof drainage scupper and overflow scupper location shall comply with the requirements of Section 1503.4 of the International Building Code.

1106.6 Size of roof gutters. The size of semicircular gutters shall be based on the maximum projected roof area in accordance with Table L1106.6.

**TABLE L1106.6
SIZE OF SEMICIRCULAR ROOF GUTTERS**

DIAMETER OF GUTTERS (inches)	HORIZONTALLY PROJECTED ROOF AREA (square feet)		
	Rainfall Rate (Inches per hour)		
	3	3.3	4
1/16 unit vertical in 12 units horizontal (0.5 percent slope)			
3	226	209	170
4	480	444	360
5	834	771	625
6	1,280	1,184	960
7	1,840	1,702	1,380
8	2,655	2,456	1,990
10	4,800	4,440	3,600
1/8 unit vertical in 12 units horizontal (1 percent slope)			
3	320	296	240
4	681	630	510
5	1,172	1,084	880
6	1,815	1,679	1,360
7	2,600	2,405	1,950
8	3,740	3,458	2,800
10	6,800	6,290	5,100
1/4 unit vertical in 12 units horizontal (2 percent slope)			
3	454	420	340
4	960	888	720
5	1,668	1,543	1,250
6	2,560	2,368	1,920
7	3,860	3,530	2,760
8	5,310	4,911	3,980
10	9,600	8,880	7,200
1/2 unit vertical in 12 units horizontal (4 percent slope)			
3	640	592	480
4	1,360	1,258	1,020
5	2,360	2,183	1,770
6	3,695	3,418	2,770
7	5,200	4,810	3,900
8	7,460	6,902	5,600
10	13,330	12,331	10,000

The Rate of Rainfall for Lubbock, Texas, is 3.3 inches per hour, as shown in Appendix B of the 2015 International Plumbing Code.

(x) Secondary (Emergency) Roof Drains. Section 1108 is hereby deleted and replaced with the following:

**SECTION 1108
SECONDARY (EMERGENCY) ROOF DRAINS**

1108.1 Secondary (emergency overflow) drains or scuppers.

Where roof drains are required, secondary (emergency overflow) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

1108.2 Separate systems required.

Secondary roof drain systems shall have the end point of discharge separate from the primary system. Discharge shall be above grade, in a location that would normally be observed by the building occupants or maintenance personnel.

1108.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 based on the rainfall rate for which the primary system is sized in Tables L1106.2(1), L1106.2(2), L1106.3 and L1106.6. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall be sized in accordance with Tables L1108.3(1) and L1108.3(2) so that the rain load on the roof does not exceed 20 psf. *Notify the structural engineer when the roof and wall areas contributing to the scuppers exceed the values shown in Table L1108.3(2) so that the structure can be designed for increased rain load.* Scuppers shall have an opening dimension of not less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

**TABLE L1108.3(1)
SIZE OF SCUPPERS**

Head, H (inches)	Length of Scupper, L (inches)										
	4"	5"	6"	8"	10"	12"	18"	24"	30"	36"	48"
CAPACITY OF SCUPPER, Q (gallons per minute)											
1"	11.4	14.4	17.4	23.4	29.4	35.4	53.3	71.3	89.3	107.3	143.2
1.846"	27.3	34.8	42.3	57.3	72.4	87.4	132.5	177.6	222.7	267.7	357.9
2"	30.5	39.0	47.5	64.4	81.4	98.3	149.1	200.0	250.8	301.7	403.4

Note: The Table is based on the Francis weir formula:

$$Q = 3.33 \times (L - 0.2 \times H) \times H^{1.5}$$

Where:

Q = Flow Rate (cubic feet per second)

L = Length of Scupper Opening (feet)

H = Head on Scupper (feet, measured 6 feet back from opening)

TABLE L1108.3(2)
MAXIMUM CONTRIBUTING AREAS FOR PARAPET WALL SCUPPERS
For This Table: $d_s = 2''$, $I = 3.3$ in./hr., and Rain Load, $R = 20$ psf

Width of Scupper, L (inches)	Maximum Contributing Roof and Wall Areas, A (square feet)
4"	796
5"	1015
6"	1234
7"	1453
8"	1673
10"	2111
12"	2549
16"	3426
24"	5179

A = Maximum allowable horizontally-projected roof areas plus one-half of the vertical wall areas contributing to the roof drainage area so that the maximum rain load on the roof, R, does not exceed 20 psf.

d_s = Depth of rainwater from the primary roof drain up to the bottom of the scupper inlet (also referred to as static head), inches. For this Table: $d_s = 2''$.

H = Maximum depth of additional rainwater above the bottom of the scupper inlet (also referred to as Hydraulic Head), inches. For this Table: H = 1.846" maximum.

$$(H = 20 \text{ psf} / 5.2 \text{ psf/in. of thickness} - d_s = 3.846'' - 2'' = 1.846'')$$

i = The rate of rainfall for Lubbock, Texas is 3.3 inches per hour, as shown in Appendix B of the 2015 IPC. The rate of rainfall is based on a storm of one hour duration and a 100 year return period.

$$Q = 3.33 \times (L - 0.2 \times H) \times H1.5 \quad A = Q/i$$

Q = Flow rate through the scupper, gallons per minute (gpm)

Note: the minimum scupper height shall be 4". Scupper heights greater than 4" do not change the values in the table.

(y) Combined Sanitary and Storm Public Sewer. Section 1109 is hereby deleted in its entirety.

(z) Medical gas certification. Section 1202 is hereby amended by adding a new section 1202.2, as follows:

1202.2 Certification required. A medical gas certification must be furnished to the building inspection department before a final inspection will be approved.

Secs. 28.10.005–28.10.050 Reserved

Division 2. Protection of Water Supply

Sec. 28.10.051 Definitions

For the purposes of section 28.10.052, section 28.10.053 and section 28.10.054 of the Code of Ordinances of the City of Lubbock, and section 312.9 and section 608 of the 2015 International Plumbing Code, sections P2503.7 and P2902 of the 2015 International Residential Code, and the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, the following definitions shall apply. In the event of a conflict between the definitions set forth below and the definitions provided in the 2015 International Plumbing, 2015 International Residential Codes, the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, for the purposes of sections 28.10.052, 28.10.053 and 28.10.054 of the Code of Ordinances of the city, the definitions set forth below shall control.

- (1) Air gap shall mean the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water to a tank, fixture, receptor, sink, or other assembly and the flood level rim of the receptacle. The vertical, physical separation must be at least twice the diameter of the water supply outlet, but never less than 1.0 inch. An air gap may also be a horizontal space between two pipes at no less than 6.0 inches.
- (2) Approved shall mean accepted by the authority responsible as meeting an applicable specification stated or cited in sections 28.10.051, 28.10.053 through 28.10.054 or as suitable for the proposed use.
- (3) Auxiliary water supply shall mean any water supply on or available to the premises other than the purveyor's approved public water supply that presents a potential contamination hazard of the public water system. These auxiliary waters may include water from another purveyor's public water supply or any natural source(s) such as a well, spring, river or stream or used waters, or industrial fluids. These waters may be contaminated or polluted or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.
- (4) Backflow shall mean the undesirable reversal of flow in a public water distribution system as a result of a cross connection.
- (5) Backflow prevention assembly shall mean an approved assembly to counteract backpressure or prevent backsiphonage.
- (6) Backflow prevention assembly test and maintenance report shall mean the report required for each backflow prevention assembly upon initial installation

and periodically thereafter as required, giving evidence that the backflow prevention assembly has been properly selected based on the degree of hazard, and has been properly installed and tested in accordance with applicable standards, and showing the results of this test. The completed form will be forwarded to the water purveyor for documentation and annual record keeping.

(7) Backflow prevention assembly tester, backflow tester, or general tester shall mean a backflow assembly device tester who is qualified to test backflow prevention assemblies on any domestic, commercial, industrial or irrigation service (excepting firelines). This person must be licensed by TCEQ and registered with the city.

(8) Backpressure shall mean pressure created by any means in the water distribution system, which by being in excess of the pressure in the water supply mains causes a potential backflow condition.

(9) Backsiphonage shall mean the backflow of potentially contaminated water into the potable water system as a result of the pressure in the potable water system falling below atmospheric pressure of the plumbing fixtures, pools, tanks or vats connected to the potable water distribution piping.

(10) Building official shall mean the officer charged with the enforcement of the building, plumbing, mechanical, electrical, fuel gas, and energy conservation codes of the city, or his duly authorized representative. For purposes of sections 28.10.051, 28.10.053 through 28.10.054, all state-licensed plumbing inspectors under the supervision of the building official are his duly authorized representatives.

(11) Bypass arrangements shall mean any jumper connections, removable section, unions, swivels or change-over devices and other temporary or permanent devices through which or because of which backflow can occur.

(12) Contamination shall mean an impairment of the quality of the potable water that creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids or waste.

(13) Cross connection shall mean a physical connection or bypass arrangement between a public water system and either another supply of unknown or questionable quality, or another source that may contain contaminating or polluting substances, any source of water treated to a lesser degree in the treatment process, or any steam, gas or chemical system.

(14) Cross-connection control device shall mean any nationally approved or recognized device placed upon any connection, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptacle,

equipment or device, which is designed to prevent nonpotable, used, unclean, polluted and contaminated water, or other substance, from entering into any part of such potable water system under any condition or set of conditions.

(15) Cross connections - controlled shall mean a connection between a public water system and a nonpublic water system with an approved backflow prevention assembly properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.

(16) Cross-connection control by containment shall mean the installation of an approved backflow prevention assembly at the water service connection to any customer's premises, where it is physically or economically unfeasible to find and permanently eliminate or control all cross connections or potential contamination hazards, within the customer's water system; or it shall mean the installation of an approved backflow prevention assembly on the service line leading to and supplying a portion of a customer's water system where there are cross connections or potential contamination hazards, that cannot be effectively eliminated or controlled at the point of the cross connection.

(17) Customer/property owner shall mean the owner, as determined by the real property records of Lubbock County, Texas, or the agent of the owner in responsible charge of the subject premises. For purposes of sections 28.10.051, 28.10.053 through 28.10.054, a licensed plumber and/or irrigator shall be deemed to be an agent of the owner when performing work under the scope of sections 28.10.051, 28.10.053 through 28.10.054 pursuant to a plumbing and/or irrigation permit.

(18) Customer service inspection shall mean an inspection designed to detect any actual or potential point of contamination of the potable water system and/or cross-connection hazards.

(19) Degree of hazard shall mean the nonhealth hazard or health hazard classification that shall be attached to all actual or potential cross connections.

(A) Nonhealth hazard shall mean a cross connection or potential cross connection involving any substance that generally would not be a health hazard but would constitute a nuisance or be aesthetically objectionable, if introduced into a public water supply.

(B) Health hazard shall mean the classification assigned to a cross connection or potential contamination hazard or other situation involving any substance that can cause illness, death, spread of disease or has a high probability of causing such effects if introduced into the potable drinking water supply.

(20) Double check valve backflow assembly (DCVA), double check assembly, and double check (DC) shall mean an assembly consisting of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly and fitted properly located resilient seated test cocks. This assembly shall only be used to protect against a nonhealth hazard.

(21) Fireline tester shall mean a tester who is qualified to test backflow prevention assemblies on firelines. This person must be licensed by TCEQ and registered with the city.

(22) Licensed professional shall mean any individual, or their representative, that must maintain a license obtained through a professional licensing board in order to conduct their business under state law.

(23) Nonpotable water shall mean water not safe for drinking, personal or culinary utilization.

(24) Pollution shall mean an impairment of the quality of the potable water to a degree that does not create a hazard to the public health but that does adversely and unreasonably affect the aesthetic qualities of such potable water for domestic use.

(25) Point of use isolation shall mean the appropriate backflow prevention within the consumer's water system at the point at which the actual or potential cross connection exists.

(26) Potable water shall mean water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the bacteriological and chemical quality requirements of the Public Health Service Drinking Water Standards or the regulations of any public health authority having jurisdiction over such matters.

(27) Potential contamination hazard shall mean a condition which, by its location, piping or configuration, has a reasonable probability of being used incorrectly, through carelessness, ignorance, or negligence, to create or cause to be created a backflow condition by which contamination can be introduced into the public water supply. Examples of potential contamination hazards are:

- (A) Bypass arrangements;
- (B) Jumper connections;
- (C) Removable sections or spools; and

(D) Swivel or changeover assemblies.

(28) Public Health Service Drinking Water Standards shall mean the standards set forth in 30 TAC 290 subchapter F, as may be amended from time to time.

(29) Reduced pressure principle backflow prevention assembly (RPBA), reduced pressure principle assembly, RPZ or RP assembly shall mean a backflow prevention device consisting of two independently acting check valves, internally force-loaded to a normally closed position and separated by an intermediate chamber (or zone) in which there is an automatic relief means of venting to the atmosphere, internally loaded to a normally open position between two tightly closing shutoff valves and with a means for testing for tightness of the checks and opening of the relief means.

(30) Repair of an irrigation system shall mean the reconstruction or renewal of any part of an existing irrigation system, including without limitation, installation of a backflow prevention device, adding additional irrigation zones, reparation of a main irrigation line and valve replacement. For the purpose hereof, the replacement of a control box or sprinkler head(s) shall not be deemed to be a repair.

(31) Service connection shall mean the point of delivery where the water purveyor loses control over the water.

(32) Used water shall mean any water supplied by a water purveyor from a public water system to a consumer's water system after it has passed through the point of delivery or service connection and is no longer under the sanitary control of the water purveyor.

(33) Water purveyor shall mean the director in charge of the water department of the city, who is vested with the authority and responsibility for the implementation of an effective cross-connection control program and for the enforcement of the provisions of sections 28.10.051, 28.10.053 through 28.10.054.

Sec. 28.10.052 Intent; conflicts

Section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city are intended to supplement the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, section 312.9, "Inspection and Testing of Backflow Prevention Assemblies," and section 608, "Protection of Potable Water Supply" of the 2015 International Plumbing Code, as well as sections P2503.7 and P2902 of the 2015 International Residential Code, both codes having been previously adopted as a part of the Code of Ordinances of the city.

In the event of any conflict between the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, sections 312.9 or 608 of the 2015 International Plumbing Code or sections P2503.7 or P2902 of the 2015 International Residential Code and section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city, the provisions of section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city shall control. Section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city shall be liberally construed to protect the public health and safety of the citizens of the city.

Sec. 28.10.053 Responsibilities of water purveyor, user, customer/property owner and backflow prevention assembly tester

(a) Responsibilities of water purveyor.

(1) (A) No water service connection to any premises shall be installed or maintained by the water purveyor unless the water supply is protected as required by state law, including without limitation, 30 TAC 290.44(h), 30 TAC 290.46(j), 30 TAC 290.47(i), 30 TAC 344.73 and 30 TAC 344.75, as same may be amended from time to time. Service of water, subject to the provisions of sections 28.10.052, 28.10.053, or 28.10.054 of the Code of Ordinances of the City of Lubbock, or sections 312.9 or 608 of the 2015 International Plumbing Code, or sections P2503.7 or P2902 of the 2015 International Residential Code, as applicable, to any premises shall be discontinued by the water purveyor if a backflow prevention assembly required by sections 28.10.051, 28.10.053 through 28.10.054 is not installed properly, tested and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if an unprotected cross connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

(B) For new facilities, permanent water service shall not be provided until all testable backflow prevention assemblies have been tested and are operational. Except in cases where the testing of backflow prevention assemblies must be delayed until the installation of internal production or auxiliary equipment, the city shall not approve any certificate of occupancy until all backflow prevention assemblies have been tested and are operational.

(2) Customer service inspection.

(A) A customer service inspection for cross-connection control shall be completed by the city water purveyor prior to providing continuous water service in each of the following circumstances:

(i) Water service to a newly constructed facility, in which case the customer service inspection shall be performed in

conjunction with or near the same time as the plumbing final inspection conducted by the building official.

(ii) Any correction, addition or improvement to the water service or water distribution plumbing of any facility or premises, except for minor repair and maintenance work exempted from permitting by section 106.2 of the 2015 International Plumbing Code, or in cases where an approved RPBA backflow prevention device has been installed at the point of water service connection such that premises' isolation is achieved, and said device has been verified as having been properly tested and maintained as provided herein. Where nonexempt plumbing work has been performed upon the water service or water distribution plumbing of any facility or premises, and approved premises isolation has been provided as described herein, the building official shall be solely responsible for ensuring compliance of any such work on the customer side of the backflow device.

(B) A permanent water service shall not be established with regard to a newly constructed facility until after the customer service inspection is completed.

(C) Temporary water service, for construction or other purposes, that is found to pose a potential cross-connection threat to the potable water due to the unknown use of the water therefor, or other reasons or causes, shall be protected by an approved backflow prevention assembly.

(3) If, in the judgment of the water purveyor or building official an approved backflow prevention assembly is required at the customer's/property owner's water service connection; or, within the customer's/property owner's private water system for the safety of the public water system, the water purveyor or the designated agent shall:

(A) Give notice in writing to the customer/property owner to install an approved backflow prevention assembly(s) at specific location(s) at his/her expense, and depending on the severity of the threat to the public water supply, within the time frame required by the city and in all instances within thirty (30) days.

(B) In the case of any premises where, in the opinion of the water purveyor and/or building official, an imminent health threat is posed due to cross connection or a potential contamination hazard, water service to the facility may immediately be discontinued without prior written notice to customer/property owner. Although the city will attempt to provide

notice as is reasonably practical, no notice shall be required prior to discontinuance.

(4) Failure, refusal or inability on the part of the customer/property owner to install, have tested and maintain the backflow prevention assembly(s) shall be grounds for discontinuing water service to the premises until such requirements have been met as required by sections 28.10.051, 28.10.053 through 28.10.054.

(5) Any reduction in water pressure caused by the installation of backflow prevention assembly devices shall not be the responsibility of the city.

(b) Responsibilities of the customer/property owner. The customer's/property owner's system shall include those parts of the potable water conveyance facilities beyond the termination of the utility distribution system that are conveying potable water to the points of use of customer/property owner.

(1) Backflow prevention assemblies shall be installed within the customer's/property owner's system at the customer's/property owner's expense at any time required by sections 28.10.052, 28.10.053, or 28.10.054 of the Code of Ordinances of the city and/or sections 312.9 or 608 of the 2015 International Plumbing Code, or sections P2503.7 or P2902 of the 2015 International Residential Code, or the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, as applicable. All backflow prevention devices must be installed and tested as required by:

(A) Section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city;

(B) Section 312.9 and section 608 of the 2015 International Plumbing Code; and

(C) 30 TAC 290.44(h), 30 TAC 290.46(j) and 30 TAC 290.47(i).

(2) It shall be the responsibility of the customer/property owner to verify that all applicable city plumbing and/or irrigation permits are obtained and that the customer/property owner, or licensed plumber or irrigator, as applicable, is in compliance with all of the provisions of those permits. In addition to the remedies provided herein, in the event the backflow prevention assembly is installed by a licensed professional, failure by such licensed professional to follow the provisions of such permit will result in written notice to the applicable state licensing agency, in addition to being a violation of sections 28.10.051, 28.10.053 through 28.10.054.

(3) It shall be the responsibility of the customer/property owner and backflow prevention assembly tester performing the subject test(s) to send to the city the

backflow prevention assembly test and maintenance records. These materials shall be delivered to the water purveyor office of the city within ten (10) days of installation of the backflow prevention assembly.

(4) The customer's/property owner's system shall be open for inspection at all reasonable times to authorized representatives of the city to determine whether cross connections or potential contamination hazards, including violations of sections 28.10.052, 28.10.053, or 28.10.054 of the Code of Ordinances of the city and/or sections 312.9 or 608 of the 2015 International Plumbing Code, or sections P2503.7 or P2902 of the 2015 International Residential Code, as applicable, exist.

(5) If the customer or premises wherein potable water from the city is supplied or provided has access to an auxiliary water supply that is treated to a lesser degree than the public water supply or if the water quality is unknown, and which is either cross connected or poses a potential contamination hazard to the public water system, the public water system shall be protected against backflow or backsiphonage by an approved backflow prevention device or a horizontal air gap (physical separation) as defined in section 28.10.051(1). The described threat shall be deemed a health hazard when determining the type of approved backflow required. If the auxiliary water supply is used for irrigation purposes, the backflow assembly shall be subject to the requirements of state laws, as same may be amended from time to time.

(A) In order for a customer to install an auxiliary water supply on property located within City of Lubbock's incorporated limits, the auxiliary water supply must be registered with the city. The registration shall be approved if the auxiliary water supply meets all federal, state, and local requirements.

(B) If the customer does not install a backflow prevention device, the following requirements must be met:

(i) The customer shall permit the city to perform a customer service inspection to determine whether a horizontal air gap exists between the two systems and no other potential contamination hazards exist.

(ii) If a potential contamination hazard exists, the customer shall install an approved backflow prevention device to protect the public water system.

(iii) If a potential contamination hazard is not documented during the customer service inspection, no backflow prevention device shall be required. However, the city shall require the

customer, at the customer's expense, to obtain a customer service inspection at a minimum of at least every three years to confirm that the two separate systems have not been cross-connected and other potential contamination hazards have not been created.

(C) Any customer who creates a cross-connection and does not comply with the backflow protection ordinances in subsection (5) shall be subject to receiving a citation and their city water service being discontinued until a backflow protection device has been installed at the premises.

(6) In the event industrial fluids, any material dangerous to health or any other objectionable substances are handled in such a fashion as to create potential contamination hazard to the public water system, such condition shall be deemed a health hazard. The public water system shall be protected against backflow from the premises by installing an air gap, a reduced pressure principle backflow assembly, or such other backflow assembly device as may be required by 30 TAC 290.47(i), as same may be amended from time to time. See attachment "A," to Ordinance 2007-O0056 incorporated herein and made a part hereof for all purposes.

(7) All new installations of or substantial alterations to fire suppression systems that utilize the city's public water supply shall have installed a U.L. approved backflow prevention device according to the degree of hazard that exists. For purposes of this section, a "substantial alteration" is deemed to be any alteration or expansion of the system that would trigger a requirement for review and approval by the authority having jurisdiction, normally being the city fire marshal. All fireline backflow prevention assemblies must be installed inside the building as determined by section 28.10.053 of the Code of Ordinances of the city. Upon the approved installation of the backflow prevention assembly, a cross-connection test report completed by a licensed fireline tester must be provided to the city as required by subsection (b)(3), above.

(8) Subject to the conditions of this subsection (b)(8), a reduced pressure assembly shall be the minimum protection for fire hydrant water meters which are being used for a temporary water supply during construction or other uses which may pose a potential contamination hazard to the public water supply. Only city fire hydrant water meters with approved backflow prevention assemblies are allowed to be used within the city limits. Failure to comply with this subsection (b)(8) will result in the fire hydrant meter being removed from the premises by the water purveyor.

(9) It shall be the duty of the customer/property owner at any premises where backflow prevention assemblies are installed to have certified inspections and

operational tests made upon installation and at least once every three years in nonhealth hazard conditions. In those instances where the water purveyor and/or building official of the city deems the potential backflow to be a health hazard or a potential health hazard, certified inspections shall be required annually or at more frequent intervals as deemed necessary by the water purveyor. All inspections and tests of backflow prevention assemblies shall be at the expense of the customer/property owner and shall be performed by a backflow tester who is licensed with the Texas Commission on Environmental Quality and registered with the water purveyor and meeting all conditions and criteria of section 28.10.052, section 28.10.053, and section 28.10.054 of the Code of Ordinances of the city.

(10) It shall be the responsibility of the customer/property owner that all irrigation systems installed after the effective date hereof and for an existing system in the event of a repair, shall have installed an approved backflow prevention assembly other than an atmospheric vacuum breaker (AVB), in the event an existing irrigation system is repaired.

(11) It shall be the responsibility of the customer/property owner to have the backflow prevention assembly device tested as described in sections 28.10.051, 28.10.053 through 28.10.054. The backflow prevention assembly shall be repaired, overhauled, or replaced at the expense of the customer/property owner whenever said assemblies are found to be defective. Water service shall not be restored until repairs are complete.

(c) Responsibilities of the backflow prevention assembly tester. In addition to requirements of the backflow prevention assembly tester set forth in other parts of this division, the backflow prevention assembly tester shall also comply with the following:

(1) The backflow prevention assembly tester shall perform competent tests, issuing complete, accurate and legible reports of backflow prevention assemblies tested, and filing backflow prevention assembly test and maintenance reports as prescribed by division. Test reports shall be submitted to the water purveyor office of the city, within (10) ten days of the testing by the backflow prevention assembly tester of the installation, replacement, or repair of the backflow assembly.

(2) Prior to performing any testing of backflow prevention assemblies within the city, a licensed backflow prevention assembly tester must be registered annually with the city in accordance with this section.

(A) Eligibility for registration shall be conditioned upon applicant providing proof to the city that they are currently licensed as a backflow prevention assembly tester by the Texas Commission on Environmental Quality.

(B) Each applicant for registration shall furnish evidence to the city to show that he/she has available the necessary tools and equipment to properly test and certify such assemblies. Serial numbers of all test gauges shall be registered with the city annually and shall be listed on tests and maintenance reports prior to being submitted to the city. Each recorded test kit shall be tested annually for accuracy and calibrated to maintain a two-percent accuracy factor.

(3) In the event the city has reason to believe that testing or reporting deficiencies exist in a backflow prevention assembly tester's methods or report, the city shall notify the tester and customer/property owner, and shall take one or more of the following actions:

(A) Require the subject customer/property owner to have retested any backflow prevention assembly previously reported as operational;

(B) In the event the backflow prevention assembly tester has committed three (3) or more inadvertent testing or reporting inaccuracies within a twelve-month period commencing with the first inaccuracy, the backflow prevention assembly tester's registration with the city may be suspended for a period of six (6) months;

(C) In the event the backflow prevention assembly tester shall file with the city an intentional or knowing falsified test report, the backflow prevention assembly tester's registration with the city shall be revoked by the city.

Sec. 28.10.054 Approved backflow prevention device assembly and installation

(a) Any backflow prevention assembly required by sections 28.10.052, 28.10.053, or 28.10.054 of the Code of Ordinances of the city, or section 312.9 or 608 of the 2015 International Plumbing Code, or sections P2503.7 or P2902 of the 2015 International Residential Code, or the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, as applicable, shall be of a model and size approved by the water purveyor/building official or as approved by 30 TAC 290.47(i), as same may be amended from time to time. Backflow prevention devices must be approved by the city prior to installation. A plumbing permit is required in accordance with section 28.05.001 of this chapter. The city shall determine the type and location of the backflow prevention assembly to be installed within the area served by the public water system.

(b) The term "approved backflow prevention assembly" shall mean a backflow prevention assembly that has been manufactured and installed in full conformance with the standards specified within the 2015 International Plumbing Code and those established by the American Water Works Association (AWWA) and the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, titled:

AWWA C510 Standard for Double Check Valve Backflow-Prevention Assembly, and AWWA C511 Standard for Reduced-Pressure Backflow-Prevention Assembly, and have met completely the laboratory field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research (FCCHR) and the University of Southern California (USC), "Specification of Backflow-Prevention Assemblies" - Sec. 10 of the most current issue of the Manual of Cross-Connection Control.

(c) Backflow prevention assemblies shall be installed in a manner designed to facilitate ease of testing and inspection by the city or any certified general tester. All backflow prevention assemblies shall be tested upon installation, relocation, or repair of same.

(d) Backflow prevention assemblies, in addition to other requirements set forth in sections 28.10.052, 28.10.053, or 28.10.054 of the Code of Ordinances of the city, or section 312.9 or 608 of the 2015 International Plumbing Code, sections P2503.7 or P2902 of the 2015 International Residential Code, or the USC Manual of Cross-Connection Control, American Water Works Association M14 Manual, shall be installed in accordance with subsections (1) through (9) below. The clearance standards set forth in subsections (1) through (9), below, shall apply to all assemblies installed in enclosures and meter boxes.

(1) Backflow prevention assemblies that are larger than four inches and installed more than five feet above floor level must have a suitable platform for use by testing or maintenance personnel.

(2) All backflow prevention assemblies installed eight feet or higher above floor level must have installed a suitable permanent ladder for use by testing or maintenance personnel.

(3) All backflow prevention assembly enclosures shall be designed for ready access and sized to allow for the minimum clearance as established in this article. Removable protective enclosures may be installed on smaller assemblies.

(4) Reduced pressure zone assemblies two inches and smaller shall have at least a six-inch clearance on both ends and on top of the assembly. Additionally, there shall be twelve inches of clearance below the relief valve and twelve inches of clearance on the test cock side of the assembly. All assemblies larger than two inches shall have a minimum of twelve inches of clearance on the back side, twenty-four inches of clearance on the test cock side, and the relief valve opening shall be at least twelve inches plus nominal size of assembly above the floor or highest possible water level.

(5) Double check valve assemblies larger than two inches may be installed above finished grade in a freeze-proof enclosure or below grade in a vault. If

assembly is installed below grade, the test cocks must be plugged with corrosion resistant watertight plugs, and shall be no less than twelve inches below grade with a minimum of twelve inches clearance below the backflow assembly device. There shall be at least a six-inch clearance on both ends of the assembly with a minimum clearance of twelve inches on the back side and twenty-four inches on the test cock side. The top of the vault shall be two inches above ground level. Double check valve assemblies shall be installed so that the checks are horizontal.

(6) Double check valve assemblies two inches and smaller may be installed above finished grade in a freeze-proof enclosure or below grade in a box. If assembly is installed below grade, the test cocks must be plugged with corrosion resistant watertight plugs, and shall be no less than twelve inches below grade with a minimum of twelve inches clearance below the backflow assembly device. There shall be at least a six-inch clearance on both ends of the assembly with a minimum clearance of twelve inches on the back side and twelve inches on the test cock side. The top of the box shall be two inches above ground level. Double check valve assemblies shall be installed so that the checks are horizontal.

(7) Bypass arrangements are prohibited. Pipe fittings which could reasonably be calculated to constitute a means by which a backflow assembly could be bypassed and defeated shall not be installed.

(8) All facilities that require continuous, uninterrupted water service and are required to have a backflow assembly must make provision for the parallel installation of assemblies of the same type so that testing, repair and maintenance can be performed.

(9) All health hazard facilities shall have containment from the city's potable water system. For the purposes of this subsection, "containment" shall mean protection of the public water supply at the service connection.

Sec. 28.10.055 Appeals

The mechanism for appeal from the provisions of this division, or from a decision of an administrative official enforcing same, shall be through the building board of appeals of the city in the same manner as set forth in section 2.03.501 of this code. It is further provided that said board shall have no authority to waive, set aside or alter any provision of this division otherwise mandated by the laws of the state.

Sec. 28.10.056 Violations

Violation of any provision of this division shall be deemed a misdemeanor punishable as provided in section 1.01.004 of the Code of Ordinances of the city. Additionally, a violation of any provision of this division shall be deemed to be a nuisance as defined under section 34.02.031 of the Code of Ordinances of the city. Notwithstanding the above, in the event a violation results in an imminent risk to human health, safety or welfare, the city may immediately discontinue water service to the subject facility without notice. Notwithstanding the right to immediately discontinue water service without notice, as described herein, the city will attempt to provide notice as is reasonably practical under the circumstances presented. The city will provide customer with necessary information to properly reinstate service.

SECTION 2. THAT should any paragraph, sentence, clause, phrase or word of this Ordinance be declared unconstitutional or invalid for any reason, the remainder of this Ordinance shall not be affected thereby.

SECTION 3. THAT the City Secretary of the City of Lubbock, Texas, is hereby authorized and directed to cause publication of the descriptive caption of this Ordinance as an alternative means of publication provided by law.

AND IT IS SO ORDERED.

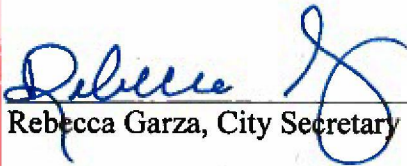
Passed by the City Council on first reading this 28th day of January, 2020.

Passed by the City Council on second reading this 11th day of February, 2020.



DAN POPE, MAYOR

ATTEST:



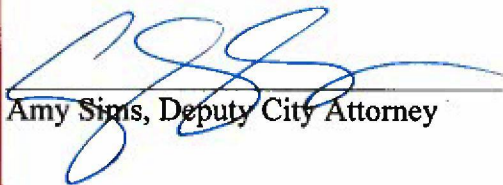
Rebecca Garza, City Secretary

APPROVED AS TO CONTENT:



Greg Zielinski, Chief Building Official

APPROVED AS TO FORM:



Amy Sims, Deputy City Attorney