

BOBBY JINDAL
GOVERNOR



MICHAEL D. EDMONSON, COLONEL
DEPUTY SECRETARY

State of Louisiana
Department of Public Safety and Corrections
Public Safety Services

December 10, 2015

VIA EMAIL

Speaker of the House
Charles E. "Chuck" Kleckley

President of the Senate
Senator John A. Alario, Jr.

Re: Emergency Rule Proposed by the Louisiana State Uniform Construction Code Council to readopt and amend the State Uniform Construction Code and adopt the Louisiana State Plumbing Code in LAC XVIII.I.Chapter 1.

Dear Gentlemen,

The Louisiana State Uniform Construction Code Council, hereafter referred to as the "LSUCCC", gives notice that it has exercised the emergency provision contained in La. R.S. 40:1730.26 and La. R.S. 40:1730.28, and in accordance with R.S. 49:953(B) of the Administrative Procedure Act to amend, supplement and expand portions of and readopt LAC 17:I.Chapter 1 of the State Uniform Construction Code. Furthermore, the LSUCCC has found an immediate need to adopt amendments of the current plumbing provisions in the *International Building Code*, *International Residential Code*, and the *International Plumbing Code* regarding health safety for the public.

The LSUCCC is promulgating this rule adoption and amendments to provide greater health and safety for the public and those providing installation and maintenance on plumbing systems. Act 836 of the 2014 Regular Session of the Louisiana Legislature mandates the adoption of the plumbing provisions in the *International Plumbing Code*, *International Building Code* and the *International Residential Code*. This Emergency Rule addresses this mandate by providing for necessary amendments to the codes. These amendments address the newly mandated provisions which the Department of Health and Hospitals (DHH) deemed inadequate. These amendments will also allow new technology and methods to be used that were not previously allowed in the current *Louisiana State Plumbing Code*.

There are additional changes to the current rules to reformat the codification of LAC 55:XVII. The formatting changes allow for Title XVII, entitled "Construction" to consist of Part

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I, the Uniform Construction Code, as well as Part III, which is designated for the Council's administrative enforcement codes.

The public welfare dictates that these changes be implemented immediately through the adoption of the Emergency Rule to promote greater safety to existing plumbing systems and those providing maintenance and installation on plumbing systems thus allowing new and existing facilities to incorporate designs which provided for greater public safety while providing more cost effective new methods and technology.

The public welfare further dictates that these changes are implemented immediately through the adoption of the Emergency Rule because of the health risks these amendments address. Adoption of this emergency rule will allow owners and developers to immediately use these new standards in expanding existing facilities or constructing new facilities.

Adoption of this emergency rule will also provide proven methods for plumbing systems and new technology in the plumbing codes which will ensure the health, safety and welfare of not only plumbers, installers and maintenance workers, but for the public as well.

This Emergency Rule was adopted December 09, 2015 and will become effective January 1, 2016. It shall be in effect for the maximum period allowed under the Act or until adoption of the final Rule, whichever occurs first.

The following documents are attached:

- (1) The Emergency Rule and
- (2) The insertion order submitted to the Office of the State Register granting authority to publish the proposed rules.

Thank you for your attention to this matter.

Sincerely,

Melinda L. Long
Attorney at Law
Uniform Construction Code Council
(225) 925-6103

DECLARATION OF EMERGENCY
Department of Public Safety and Corrections
State Uniform Construction Code Council

State Uniform Construction Code
(LAC 17:I.Chapter 1)

The Department of Public Safety and Corrections, Office of the State Fire Marshal, Louisiana State Uniform Construction Code Council (LSUCCC) has exercised the emergency provision in accordance with R.S. 49:953(B), of the Administrative Procedure Act, to amend, supplement and expand portions of and readopt LAC 17:I.Chapter 1 in the State Uniform Construction Code as authorized by R.S. 40:1730.26 and R.S. 40:1730.28. Furthermore, the LSUCCC has found an immediate need to adopt amendments of the current plumbing provisions in the *International Building Code*, *International Residential Code*, and the *International Plumbing Code* regarding health safety for the public. This Emergency Rule will become effective January 1, 2016 and shall be in effect for the maximum period allowed under the Act or until adoption of the final Rule, whichever occurs first.

The LSUCCC is promulgating this rule adoption and amendments to provide greater health and safety for the public and those providing installation and maintenance on plumbing systems. Act 836 of the 2014 Regular Session of the Louisiana Legislature mandates the adoption of the plumbing provisions in the *International Plumbing Code*, *International Building Code* and the *International Residential Code*. This Emergency Rule addresses this mandate by providing for necessary amendments to the codes. These amendments address the newly mandated provisions which the Department of Health and Hospitals (DHH) deemed inadequate. These amendments will also allow new technology and methods to be used that were not previously allowed in the current *Louisiana State Plumbing Code*. There are additional changes to the current rules to reformat the codification of LAC 55:XVII. The formatting changes allow for Title XVII, entitled “Construction” to consist of Part I, the Uniform Construction Code, as well as Part III, which will be designated for the Code Council’s administrative enforcement laws.

The public welfare dictates that these changes be implemented immediately through the adoption of the Emergency Rule to promote greater safety to existing plumbing systems and those providing maintenance and installation on plumbing systems thus allowing new and existing facilities to incorporate designs which provided for greater public safety while providing more cost effective new methods and technology.

The public welfare further dictates that these changes are implemented immediately through the adoption of the Emergency Rule because of the health risks these amendments address. Adoption of this emergency rule will allow owners and developers to immediately use these new standards in expanding existing facilities or constructing new facilities.

Adoption of this emergency rule will also provide proven methods for plumbing systems and new technology in the plumbing codes which will ensure the health, safety and welfare of not only plumbers, installers and maintenance workers, but for the public as well.

Title 17

CONSTRUCTION

Part I. Uniform Construction Code

Chapter 1. Uniform Construction Code

§101. Louisiana State Uniform Construction Code (Formerly LAC 55:VI.301.A)

A. In accordance with the requirements set forth in R.S. 40:1730.28, effective January 1, 2016 the following is hereby adopted as an amendment to the Louisiana State Uniform Construction Code.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D) and 40:1730.26(1).
HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 33:291 (February 2007), amended LR 34:93 (January 2008), LR 34:883 (May 2008), LR 34:2205 (October 2008), LR 35:1904 (September 2009), LR 36:2574 (November 2010), effective January 1, 2011, LR 37:601 (February 2011), LR 37:913 (March 2011), repromulgated LR 37:2187 (July 2011), repromulgated LR 37:2726 (September 2011), LR 37:3065 (October 2011), LR 38:1994 (August 2012), amended by the Department of Public Safety and Corrections, Uniform Construction Code Council, LR 39:1825 (July 2013), LR 39:2512 (September 2013), LR 40:2609 (December 2014), amended by the Department of Public Safety and Corrections, Office of State Fire Marshal, LR 41:2380 (November 2015), amended LR 41:

§103 *International Building Code* (Formerly LAC 55:VI.301.A.1)

A. *International Building Code* (IBC), 2012 Edition, not including Chapter 1, Administration, Chapter 11, Accessibility and Chapter 27, Electrical. The applicable standards referenced in that code are included for regulation of construction within this state. Furthermore, IBC shall be amended as follows and shall only apply to the *International Building Code*.

1. Amend Chapter 2 Definitions and add the following:

Adult Day Care Center—any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of 10 or more people 18 years and older, not related to the caregiver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the person's home.

Child Day Care Center—any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of seven or more children under the age of 18, not related to the care giver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the children's

home. A day care center that remains open for more than 20 hours in a continuous seven day week, and in which no individual child remains for more than 24 hours in one continuous stay shall be known as a full-time day care center.

Day Care Centers—includes adult and child day care centers.

Infant—any child under the age of 12 months.

Preschool—any child less than five years of age.

Residential Facility—any place, facility, or home operated by any person who receives therein four or more people who are not related to such person for supervision, care, lodging and maintenance with or without transfer of custody. This shall include, but not be limited to group homes, community homes, maternity homes, juvenile detention centers, emergency shelters, halfway homes and schools for the mentally retarded.

2. Delete Chapter 4, Section 403.5.5, Luminous Egress Path Markings.
3. Amend Chapter 9 to adopt and amend 2012 *International Building Code*, Section 903.2.1.2, Group A-2 (2.). The fire area has an occupant load of 300 or more.
4. Amend chapter 10, Section 1018.5, Air Movement in corridors. Corridors that require protection under Table 1018.1—Corridor Fire-Resistance Rating, shall not serve as supply, return, exhaust, relief or ventilation air ducts.
5. Amend Chapter 10, Section 1026.5.

a. Exception: exterior stairs or ramps which serve no more than one story above the level of exit discharge and constructed with non-combustible materials or constructed with fire retardant treated lumber, shall be allowed when the fire separation distance is between 5 and 10 feet measured from the exterior edge of the stairway or ramp.

6. Amend Section 1505.1, General. Roof assemblies shall be divided into the classes defined below. Class A, B and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building.

- a. Exception: skylights and sloped glazing that comply with Chapter 24 or Section 2610.

7. Table 1505.1a, b.

Minimum Roof Covering Classification for Types of Construction							
IA	IB	IIA	IIB	IIIA	IIIB	IV	VA
B	B	B	C ^c	B	C ^c	B	B
							C ^c

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

- a. Unless otherwise required in accordance with the *International Wildland—Urban Interface Code* or due to the location of the building within a fire district in accordance with Appendix D.

- b. Nonclassified roof coverings shall be permitted on buildings of Group R-3 and Group U occupancies, where there is a minimum fire-separation distance of 6 feet measured from the leading edge of the roof.
- c. Buildings that are not more than two stories above grade plane and having not more than 6,000 square feet of projected roof area and where there is a minimum 10-foot fire-separation distance from the leading edge of the roof to a lot line on all sides of the building, except for street fronts or public ways, shall be permitted to have roofs of No. 1 cedar or redwood shakes and No. 1 shingles constructed in accordance with Section 1505.7.
- 8. Amend Section 1509.7, Photovoltaic panels and modules. Rooftop mounted photovoltaic panels and modules shall be designed in accordance with this section.
- 9. Amend Section 1509.7.1, Wind resistance. Rooftop-mounted photovoltaic panels and modules shall be designed for component and cladding wind loads in accordance with Chapter 16 using an effective wind area based on the dimensions of a single unit frame.
 - a. Amend Section 1509.7.2, Fire classification. Rooftop-mounted photovoltaic panels and modules shall have the fire classification in accordance with Section 1505.9.
- 10. Amend Section 1509.7.3, Installation. Rooftop-mounted photovoltaic panels and modules shall be installed in accordance with the manufacturer's instructions.
- 11. Amend Section 1509.7.4, Photovoltaic panels and modules. Rooftop-mounted photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703 and shall be installed in accordance with the manufacturer's instructions.
- 12. Add 1509.7.4.1, Building-integrated photovoltaic products. Building-integrated photovoltaic products installed as the roof covering shall be tested, listed and labeled for fire classification in accordance with Section 1505.1.
- 13. Add Section 1505.9.7.4.2, Photovoltaic panels and modules. Rooftop mounted photovoltaic panel systems shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 based on the type of construction of the building.
- 14. Amend Section 1511.1, Photovoltaic panels and modules. Photovoltaic panels and modules installed upon a roof or as an integral part of a roof assembly shall comply with the requirements of this code and the *International Fire Code*.
- 15. Add Section 1511.2, Solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 1511.2 through 1511.1.1., the *International Building Code* or *International Residential Code*, and NFPA 70.
- 16. Add Section 1511.2.1, Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 1511.2.1 through 1511.2.1.1.
 - a.. Exceptions:
 - i. detached, nonhabitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises and similar structures;
 - ii. roof access, pathways and spacing requirements need not be provided where the fire chief has determined that rooftop operations will not be employed.

17. Add Section 1511.2.1.1, Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires or signs.

18. Add Section 1511.3, Solar photovoltaic systems for Group R-3 buildings. Solar photovoltaic systems for Group R-3 buildings shall comply with Sections 1511.3 through 1511.3.5.

a. Exception:

i. these requirements shall not apply to structures designed and constructed in accordance with the *International Residential Code*.

19. Add Section 1511.3.1, Size of solar photovoltaic array. Each photovoltaic array shall be limited to 150 feet (45 720 mm) by 150 feet (45 720 mm). Multiple arrays shall be separated by a 3-foot-wide (914 mm) clear access pathway.

20. Add Section 1511.3.2, Hip roof layouts. Panels and modules installed on Group R-3 buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels and modules are located. The access pathway shall be at a location on the building capable of supporting the fire fighters accessing the roof.

a. Exception:

i. these requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

21. Add Section 1511.3.3, Single-ridge roofs. Panels and modules installed on Group R-3 buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels and modules are located.

a. Exception:

i. this requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

22. Add Section 1511.3.4, Roofs with hips and valleys. Panels and modules installed on Group R-3 buildings with roof hips and valleys shall not be located closer than 18 inches (457 mm) to a hip or a valley where panels/ modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

a. Exception:

i. these requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

23. Add Section 1511.3.5, Allowance for smoke ventilation operations. Panels and modules installed on Group R-3 buildings shall be located not less than 3 feet (914 mm) from the ridge in order to allow for fire department smoke ventilation operations.

a. Exception:

- i. panels and modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

24. Add Section 1511.4, Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 1511.4.1 through 1511.4.2.1.

a. Exception:

- i. where it is determined by the fire code official that the roof configuration is similar to that of a Group R-3 occupancy, the residential access and ventilation requirements in Sections 1511.3.1 through 1511.3.5 shall be permitted to be used.

25. Add Section 1511.4.1, Access. There shall be a minimum 6-foot-wide (1829 mm) clear perimeter around the edges of the roof.

a. Exception:

- i. where either axis of the building is 250 feet (76 200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum 4 foot wide (1290 mm).

26. Add Section 1511.4.2, Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

- a. The pathway shall be over areas capable of supporting fire fighters accessing the roof.
- b. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting fire fighters accessing the roof.
- c. Pathways shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes or ventilation hatches.
- d. Pathways shall provide not less than 4 feet (1290 mm) clear around roof access hatch with not less than one singular pathway not less than 4 feet (1290 mm) clear to a parapet or roof edge.

27. Add Section 1511.4.2.1, Smoke ventilation. The solar installation shall be designed to meet the following requirements:

- a. Arrays shall be not greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.
- b. Smoke ventilation options between array sections shall be one of the following:
 - i. a pathway 8 feet (2438 mm) or greater in width;
 - ii. a 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or gravity-operated dropout smoke and heat vents on not less than one side;
 - iii. a 4-foot (1290 mm) or greater in width pathway and bordering all sides of nongravity-operated dropout smoke and heat vents;

- iv. a 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) “venting cutouts” every 20 feet (6096 mm) on alternating sides of the pathway.

28. Amend Chapter 16 Section 1603.1, General. Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the construction documents.

a. Exception: Construction documents for buildings constructed in accordance with the conventional light-frame construction provisions of Section 2308 shall indicate the following structural design information:

- i. floor and roof live loads;
- ii. ground snow load, P_g ;
- iii. basic wind speed (3-second gust), miles per hour (mph) (km/hr) and wind exposure;
- iv. seismic design category and site class., unless excepted by Sections 1603.1.5 or 1613.1;
- v. flood design data, if located in flood hazard areas established in Section 1612.3;
- vi. design load-bearing values of soils.

29. Amend Chapter 16 Section 1603.1.5, Earthquake design data. The following information related to seismic loads shall be shown, regardless of whether seismic loads govern the design of the lateral-force-resisting system of the building:

- a. seismic importance factor, I, and occupancy category;
- b. mapped spectral response accelerations, SS and S1;
- c. site class;
- d. spectral response coefficients, SDS and SD1;
- e. seismic design category;
- f. basic seismic-force-resisting system(s);
- g. design base shear;
- h. seismic response coefficient(s), CS;
- i. response modification factor(s), R;
- g. analysis procedure used;
- h. exceptions:
 - i. construction documents that are not required to be prepared by a registered design professional;
 - ii. construction documents for structures that are assigned to Seismic Design Category A.

30. Amend Chapter, 16 Section 1609.1.2, Protection of Openings. In wind-borne debris regions, glazing in buildings shall be impact resistant or protected with an impact-resistant covering meeting the requirements of an approved impact-resistant standard or ASTM E 1996 and ASTM E 1886 referenced herein as follows.

- a. Glazed openings located within 30 feet (9144 mm) of grade shall meet the requirements of the large missile test of ASTM E 1996.
- b. Glazed openings located more than 30 feet (9144 mm) above grade shall meet the provisions of the small missile test of ASTM E 1996.

c. Exceptions:

- i. wood structural panels with a minimum thickness of 7/16 inch (11.1 mm) and maximum panel span of 8 feet (2438 mm) shall be permitted for opening protection in one- and two-story buildings classified as Risk Category 2. Panels shall be precut so that they shall be attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the anchorage method and shall be secured with the attachment hardware provided. Attachments shall be designed to resist the components and cladding loads determined in accordance with the provisions of ASCE 7, with corrosion-resistant attachment hardware provided and anchors permanently installed on the building. Attachment in accordance with Table 1609.1.2 with corrosion-resistant attachment hardware provided and anchors permanently installed on the building is permitted for buildings with a mean roof height of 45 feet (13 716 mm) or less where V_{asd} determined in accordance with Section 1609.3.1 does not exceed 140 mph (63 m/s).

- ii. glazing in Risk Category I buildings as defined in Section 1604.5, including greenhouses that are occupied for growing plants on a production or research basis, without public access shall be permitted to be unprotected;

- iii. glazing in Risk Category II, III or IV buildings located over 60 feet (18 288 mm) above the ground and over 30 feet (9144 mm) above aggregate surface roofs located within 1,500 feet (458 m) of the building shall be permitted to be unprotected.

31. Chapter 16, Section 1613.1, Scope. Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14 and Appendix 11A. The seismic design category for a structure is permitted to be determined in accordance with Section 1613 or ASCE 7.

a. Exceptions:

- i. detached one- and two-family dwellings, assigned to Seismic Design Category A, B or C, or located where the mapped short-period spectral response acceleration, SS , is less than 0.4 g;

- ii. the seismic-force-resisting system of wood-frame buildings that conform to the provisions of Section 2308 are not required to be analyzed as specified in this Section;

- iii. agricultural storage structures intended only for incidental human occupancy;

- iv. structures that require special consideration of their response characteristics and environment that are not addressed by this code or ASCE 7 and for which other regulations

provide seismic criteria, such as vehicular bridges, electrical transmission towers, hydraulic structures, buried utility lines and their appurtenances and nuclear reactors;

v. structures that are not required to have a registered design professional in responsible charge;

vi. structures that are assigned to Seismic Design Category A.

b. Amend Chapter 16, Section 1613.1, Scope. Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14 and Appendix 11A. The seismic design category for a structure is permitted to be determined in accordance with Section 1613 or ASCE 7-10. Figure 1613.5(1) shall be replaced with ASCE 7-10 Figure 22-1. Figure 1613.5(2) shall be replaced with ASCE 7-10 Figure 22-2.

32. Amend Chapter 23 Section 2308.2, Exceptions 4. Wind speeds shall not exceed 110 miles per hour (mph)(48.4m/s)(3 second gust) for buildings in exposure category B.

33. Amend Section [P]2901.1, Scope.

a. The provisions of this chapter and the *International Plumbing Code* shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the *International Plumbing Code*. Commercial treatment facilities and individual sewerage systems shall conform to the applicable requirements of LAC 51:XIII (Sewage Disposal).

34. Amend Section [P]2902.3.2, Location of toilet facilities in occupancies other than malls and educational buildings.

a. In occupancies other than covered and open mall buildings, and educational buildings, the required public and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

35. Add Section [P] 2902.3.6, Toilet Room Location.

a. Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

36. Add Section [P] 2902.3.7, Location of toilet facilities in educational buildings.

a. For primary schools, and other special types of institutions with classrooms, for children through 12 years of age, separate boys' and girls' toilet room doors shall not be further than 200 feet from any classroom doors. For secondary schools, and other special types of institutions with classrooms, for persons of secondary school age, separate boys' and girls' toilet room doors shall not be further than 400 feet from any classroom door.

In multi-storied buildings, there shall be boys' and girls' toilet rooms on each floor, having the number of plumbing fixtures as specified in Table 2902.1 of this Code for the classroom population of that floor. When new educational buildings are added to an existing campus, the restroom facilities and drinking fountains located in the existing building(s) may be used to serve the occupants of the new educational building(s) only when all of the following provisions are met:

- i. Covered walkways consisting of a roof designed to protect the students and faculty from precipitation having a minimum width of 6 feet and located above a slip-resistant concrete or other acceptable hard surfaces leading to and from the restrooms shall be provided whenever children or faculty have to walk outside to access the toilet room;
- ii. The path of travel from the classroom door to the toilet room doors (boys' or girls') does not exceed the applicable distance specified in this section; and,
- iii. The number of occupants of the new building does not cause an increase in the school population that would trigger the need for more fixtures per Table 2902.1 (Minimum Number of Required Plumbing Fixtures).

37. Add Section [P]2902.6, Other fixture requirements for licensed pre-schools, day care centers, and residential facilities.

- a. Additional plumbing fixtures shall be provided in day care centers and residential facilities as required by this Section.

38. Add Section [P]2902.6.1, Food preparation.

- a. The food preparation area in pre-schools, day cares, and residential facilities shall meet the following requirements. The food preparation, storage and handling where six or less individuals are cared for shall provide a two-compartment sink and an approved domestic type dishwasher. Where the number of individuals cared for is between 7 and 15, either a three-compartment sink, or an approved domestic or commercial type dishwashing machine and a two-compartment sink with hot and cold running water shall be provided. Where 16 or more individuals are cared for, a three-compartment sink must be provided. If a dishwasher is also utilized in these instances (16 or more individuals), it must be a commercial type and it shall be in addition to the required three-compartment sink. One laundry tray, service sink, or curbed cleaning facility with floor drain shall also be provided on the premises for cleaning of mops and mop water disposal (for facilities caring for 16 or more individuals).

39. Add Section [P]2902.6.2, Caring for children between 0 and 4 years of age.

- a. In child day care facilities, a hand washing sink shall be in or adjacent to each diaper changing area. In addition, one extra laundry tray, service sink, or similar fixture is required to clean and sanitize toilet training potties immediately after each use. Such fixture shall be dedicated solely for this purpose and shall not be in the food preparation/storage, utensil washing, or dining areas. Training potties shall not be counted as toilets in determining the minimum fixture requirements of

Table 2902.1. Fixtures shall be size appropriate for the age of the children being cared for (toilets 11 inches maximum height and lavatories 22 inches maximum height), or if standard size fixtures are used, safe, cleanable step aids shall be provided.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D) and 40:1730.26(1).
HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 33:291 (February 2007), amended LR 34:93 (January 2008), LR 34:883 (May 2008), LR 34:2205 (October 2008), LR 35:1904 (September 2009), LR 36:2574 (November 2010), effective January 1, 2011, LR 37:601 (February 2011), LR 37:913 (March 2011), repromulgated LR 37:2187 (July 2011), repromulgated LR 37:2726 (September 2011), LR 37:3065 (October 2011), LR 38:1994 (August 2012), amended by the Department of Public Safety and Corrections, Uniform Construction Code Council, LR 39:1825 (July 2013), LR 39:2512 (September 2013), LR 40:2609 (December 2014), amended by the Department of Public Safety and Corrections, Office of State Fire Marshal, LR 41:2380 (November 2015), amended LR 41:

§107. *International Residential Code* (Formerly LAC 55:VI.301.A.3.a)

A.1. *International Residential Code*, 2012 Edition, not including Parts I-Administrative and VIII-Electrical. The applicable standards referenced in that code are included for regulation of construction within this state. The enforcement of such standards shall be mandatory only with respect to new construction, reconstruction, additions to homes previously built to the *International Residential Code*, and extensive alterations. Appendix G, Swimming Pools, Spas and Hot Tubs is adopted and at the option of a parish, municipality, or regional planning commission, Section AG105 Barrier Requirements may be altered. Appendix J, Existing Buildings and Structures, may be adopted and enforced only at the option of a parish, municipality, or regional planning commission.

- a. Add the following Chapter 2 definitions and amend as follows:

BAROMETRIC LOOP--A fabricated piping arrangement rising at least 35 feet at its topmost point above the highest fixture it supplies. It is utilized in water supply systems to protect against backsiphonage backflow.

BUILDING SEWER--That part of the drainage system that extends from the end of the building drain and conveys the discharge to community sewerage system, commercial treatment facility, or individual sewerage system or other point of disposal.

BY-PASS--Any system of piping or other arrangement whereby the water may be diverted around any part or portion of the water supply system including, but not limited to, around an installed backflow preventer.

CONTAINMENT--a method of backflow prevention which requires a backflow prevention device or method on the water service pipe to isolate the customer from the water main.

CONTINUOUS WATER PRESSURE -- A condition when a backflow preventer is continuously subjected to the upstream water supply pressure for a period of 12 hours or more.

DEGREE OF HAZARD--An evaluation of the potential risk to public health if the public were to be exposed to contaminated water caused by an unprotected or inadequately protected cross connection.

DOMESTIC WELL--A water well used exclusively to supply the household needs of the owner/lessee and his family. Uses may include human consumption, sanitary purposes, lawn and garden watering and caring for pets.

DUAL CHECK VALVE-- A device having two spring loaded, independently operated check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter. Not an approved backflow prevention device.

FIXTURE ISOLATION--A method of backflow prevention in which a backflow preventer is located to protect the potable water of a water supply system against a cross connection at a fixture located within the structure or premises itself.

HUMAN CONSUMPTION--The use of water by humans for drinking, cooking, bathing, showering, hand washing, dishwashing, or maintaining oral hygiene.

INDIRECT WASTE PIPE--A waste pipe that does not connect directly with the drainage system, but that discharges into the drainage system through an *air break* or *air gap* into a trap, fixture, or waste *receptor*.

LEAD FREE—

a. in general:

i. not containing more than 0.2 percent lead when used with respect to solder and flux; and,

ii. not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

b. calculation:

i. The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula:

(a). For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product. The lead content of the material used to produce wetted components shall be used to determine compliance with Clause a.ii. above. For lead content of materials that are provided as a range, the maximum content of the range shall be used.

MASTER METER--A water meter serving multiple residential dwelling units or multiple commercial units. Individual units may or may not be sub-metered.

MULTIPURPOSE PIPING FIRE SPRINKLER SYSTEM--A piping system intended to serve both domestic needs in excess of a single fixture and fire protection needs from one common piping system throughout the dwelling unit(s).

POTABLE WATER--Water free from impurities present in amount sufficient to cause disease or harmful physiological effects and conforming to the bacteriological, physical, radiological, and chemical quality requirements of the federal Safe Drinking Water Act or the regulations of the Department of Health and Hospitals, Office of Public Health.

POTABLE WATER SUPPLY--A publicly owned or privately owned water supply system which purveys potable water.

PRIVATE WATER SUPPLY--A potable water supply that does not meet the criteria for a public water supply including, but not limited to, a domestic well.

PUBLIC WATER SUPPLY--Public water system.

PUBLIC WATER SYSTEM--A particular type of *water supply system* intended to provide *potable water* to the public having at least fifteen service connections or regularly serving an average of at least twenty-five individuals daily at least sixty days out of the year.

SANITARY SEWAGE--See "Sewage."

SEPTIC TANK--A water-tight receptor that receives the discharge of a building sanitary drainage system and is constructed so as to separate solids from the liquid, digest organic matter through a period of detention, and allow the liquids effluent to discharge into the soil outside of the tank through a system of open joint or perforated piping or is otherwise treated and disposed of utilizing other methods approved by the state health officer.

SEWERAGE SYSTEM--Any system of piping (excluding the building drain and building sewer) and/or collection and/or transport system and/or pumping facility and/or treatment

facility, all for the purpose of collecting, transporting, pumping, treating and/or disposing of sanitary sewage.

STAND-ALONE FIRE SPRINKLER SYSTEM--A sprinkler system where the aboveground piping serves only fire sprinklers.

WASTE RECEPTOR--A plumbing fixture designed specifically to collect and dispose of liquid waste received from an indirect waste pipe which is connected to other plumbing fixtures, plumbing equipment or appliances which are required to discharge to the drainage system through either an air gap (drainage system) or air break (drainage system). The following type fixtures fall within the classification of indirect waste receptors: floor sinks, curbed cleaning facilities with floor drain, and standpipe drains with integral air gaps (drainage system) or air breaks (drainage system), and may include others when approved as such by the code official.

WATER SUPPLIER--A person who owns or operates a water supply system including, but not limited to, a person who owns or operates a public water system.

WATER SUPPLY SYSTEM--The water service pipe, water distribution pipes, and the necessary connecting pipes, fittings, control valves and all appurtenances in or adjacent to the structure or premise. This term shall also mean the system of pipes or other constructed conveyances, structures and facilities through which water is obtained, treated to make it potable (if necessary) and then distributed (with or without charge) for human consumption or other use.

- b. Adopt and amend 2012 IRC Section R301.2.1.1., Part IV-Energy Conservation of the latest edition of the *International Residential Code* is hereby amended to require that supply and return ducts be insulated to a minimum of R-6. Furthermore, 2012 IRC R301.2.1.1 (Design Criteria) shall be amended as follows and shall only apply to the *International Residential Code*:
 - i. Delete Figure R301.2(4)B and replace all references to this figure with Figure R301.2(4)A.
 - c. Amend 2012 IRC Section R301.2.1.1 (Design Criteria); R301.2.1.1, Wind limitations and wind design required. The wind provisions of this code shall not apply to the design of buildings where the basic wind speed from Figure R301.2(4)A equals or exceeds 110 miles per hour (49 m/s).
 - i. Exceptions:
 - (a). for concrete construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R404 and R611;
 - (b). for structural insulated panels, the wind provisions of this code shall apply in accordance with the limitations of Section R613.
 - ii. In regions where the basic wind speed shown on Figure R301.2(4)A equals or exceeds 110 miles per hour (49 m/s), the design of buildings for wind loads shall be in accordance with one or more of the following methods:
 - (a). AF and PA Wood Frame Construction Manual (WFCM);

- (b).ICC Standard for Residential Construction in High-Wind Regions (ICC 600);
- (c). ASCE Minimum Design Loads for Buildings and Other Structures (ASCE 7);
- (d).AISI Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings (AISI S230);
- (e). *International Building Code*; or
- (f). SSTD 10-99 Hurricane Resistant Construction Standard.

iii. The elements of design not addressed by the methods in Clauses (i) through (vi) shall be in accordance with the provisions of this code. When ASCE 7 or the *International Building Code* is used for the design of the building, the wind speed map and exposure category requirements as specified in ASCE 7 and the *International Building Code* shall be used.

d. Adopt and amend 2012 IRC Section R301.2.1.2, Protection of Openings. Exterior glazing in buildings located in windborne debris regions shall be protected from windborne debris. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E 1996 and ASTM E 1886 referenced therein. The applicable wind zones for establishing missile types in ASTM E 1996 are shown on Figure R301.2(4)F. Garage door glazed opening protection for windborne debris shall meet the requirements of an approved impact-resisting standard or ANSI/DASMA115.

i. Exceptions:

(a). wood structural panels with a minimum thickness of 7/16 inch (11 mm) and a maximum span of 8 feet (2438 mm) shall be permitted for opening protection in one- and two-story buildings.;

(b). panels shall be precut and attached to the framing surrounding the opening containing the product with the glazed opening;

(c). panels shall be predrilled as required for the anchorage method and shall be secured with the attachment hardware provided;

(d). attachments shall be designed to resist the component and cladding loads determined in accordance with either Table R301.2(2) or ASCE 7, with the permanent corrosion-resistant attachment hardware provided and anchors permanently installed on the building;

(e). attachment in accordance with Table R301.2.1.2 is permitted for buildings with a mean roof height of 33 feet (10 058 mm) or less where wind speeds do not exceed 130 miles per hour (58 m/s).

e. Adopt 2012 IRC Figure R301.2(4)A and delete Figure R301.2(4)B and Figure R301.2(4)C.

f. Adopt 2012 IRC Section R301.2.1.4, Exposure Category.

2. – 6.k.ii. ...

7. Amend Chapter 26, General Plumbing Requirements.

a. Amend Section P 2602.1, General.

i. The water-distribution and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply or community sewerage system, respectively, if available. When either a public water-supply or community sewerage system, or both, are not available, or connection to them is not feasible private water supply complying with the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells) or individual (private) sewage-disposal system complying with the applicable requirements of LAC 51:XIII (Sewage Disposal), or both, shall be provided.

b. Amend Section P2609.5, Water supply systems.

i. Water service pipes, water distribution pipes and the necessary connecting pipes, fittings, control valves, faucets and appurtenances used to dispense water intended for human consumption shall be evaluated and listed as conforming to the requirements of NSF 61. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free.

(a.) Exception. The lead free requirement above shall not apply to:

(i). leaded joints necessary for the repair of existing cast iron pipes;

(ii.). fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or,

(iii.). toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

8. Amend Chapter 29, Water Supply and Distribution.

a Amend Section P2902.3.2, Atmospheric-type vacuum breakers.

i. Pipe-applied atmospheric-type vacuum breakers shall conform to ASSE 1001 or CSA B64.1.1. Pipe-applied atmospheric type vacuum breakers shall be installed not less than 6 inches (152 mm) above all downstream piping and not less than 6 inches (152 mm) above the flood-level rim of the fixture receptor or device served. Hose-connection vacuum breakers shall conform to ASSE 1011, ASSE 1019, ASSE 1035, ASSE 1052, CSA B64.2, CSA B64.2.1, CSA B64.2.1.1, CSA B64.2.2 or CSA B64.7. These devices shall operate under normal atmospheric pressure when the critical level is installed at the required height. Atmospheric vacuum breakers including, but not limited to, hose bibb vacuum breakers shall not be subjected to continuous water pressure and shutoff or control valves shall not be installed downstream of these devices.

b. Amend Section P2902.3.4, Pressure vacuum breaker assemblies.

- i. Pressure vacuum breaker assemblies shall conform to ASSE 1020 or CSA B64.1.2. Spill-resistant vacuum breaker assemblies shall comply with ASSE 1056. These assemblies shall be installed not less than 12 inches (305 mm) above all downstream piping and not less than 12 inches (305 mm) above the flood-level rim of the fixture receptor or device served. Pressure vacuum breaker assemblies shall not be installed in locations where spillage could cause damage to the structure.

- c. Amend Section P2902.4.3, Hose connection.

- i. Sillcocks, hose bibbs, wall hydrants and other openings with a hose connection shall be protected against backflow by an atmospheric-type or pressure-type vacuum breaker installed in accordance with Section 608.15.4, or by a permanently attached hose connection vacuum breaker in which the highest point of usage is less than 10 feet above the hose connection vacuum breaker. Hose bib vacuum breakers shall not be subjected to continuous water pressure.

- d. Amend Section P2902.5.3, Lawn Irrigation Systems.

- i. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow prevention assembly. Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. When an irrigation/lawn sprinkler system is provided with separate zones, the potable water supply shall be protected by a pressure vacuum breaker or reduced pressure principle backflow prevention assembly. Atmospheric vacuum breakers shall be installed at least 6 inches (152 mm) above the highest point of usage (i.e., 6 inches (152 mm) above all downstream piping or highest sprinkler head). Pressure type vacuum breakers shall be installed at least 12 inches (305 mm) above the highest point of usage (i.e., 12 inches (305 mm) above all downstream piping and the highest sprinkler head). Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly.

- e. Add Section P2902.5.6, Connections to swimming pools.

- i. The potable water supply to swimming pools shall be protected against backflow by an air gap or reduced pressure principle backflow prevention assembly.

- f. Add Section P2902.5.7, Connections to animal watering troughs, ornamental fountains, or other similar equipment.

- i. The potable water supply to animal watering troughs, ornamental fountains, or other similar fixtures shall be protected against backflow by an air gap.

- g. Amend Section P2902.6, Location of backflow preventers.

- i. Access shall be provided to backflow preventers as specified by the manufacturer's installation instructions for the required testing, maintenance and repair. A minimum of 1-foot of clearance shall be provided between the lowest portion of the assembly and grade or platform.

Elevated installations exceeding 5-feet above grade(g) shall be provided with a suitably located permanent platform capable of supporting the installer, tester, or repairer. Reduced pressure zone (RPZ) type backflow preventers, and other types of backflow preventers with atmospheric ports and/or test cocks (e.g., atmospheric type vacuum breakers, double check valve assemblies, pressure type vacuum breaker assemblies, etc.), shall not be installed below grade (in vaults or pits) where the potential for a relief valve, an atmospheric port, or a test cock being submerged exists.

h. Amend Section P2902.6.2, Protection of backflow preventers.

i. Backflow preventers subjected to freezing temperatures shall be protected by heat, insulation or both; or as otherwise recommended by the manufacturer.

i. Add Section P2902.8, Inspection and testing of backflow prevention assemblies, barometric loops and air gaps.

i. Inspection and testing shall comply with Sections P2902.8.1 through P2902.8.3.

j. Add Section P2902.8.1, Inspections.

i. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable, properly installed and maintained, and meet testing/code requirements. Inspections of backflow prevention devices including air gaps used to protect high degree of hazard cross connections shall be documented in writing and the report provided to the owner of the backflow prevention device.

k. Add Section P2902.8.2, Testing.

i. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10.1, USC's FCCC & HR's "Manual of Cross-Connection Control", or UFL's TREEO's "Backflow Prevention – Theory and Practice". Any backflow preventer which is found to be defective shall be repaired.

l. Add Section P2902.8.3, Owner Responsibilities.

i. The owner of the backflow prevention assemblies shall comply with the following:

(a). It shall be the duty of the owner of the backflow prevention assembly to see that these tests are made in a timely manner in accord with the frequency of field testing specified in 312.10.2 of this code.

(b) The owner shall notify the building official, and/or water supplier (for those devices associated with containment) in advance when the tests are to be undertaken so that the building official and/or water supplier may witness the tests if so desired.

(c) Upon completion, the owner shall provide records of such tests, repairs, overhauls, or replacements to the building official or water supplier (for those devices associated with containment). In addition, all records shall be kept by the owner of the backflow prevention device or method for at least 5 years and, upon specific request, shall be made available to the building official or water supplier.

(d.) All tests, repairs, overhauls or replacements shall be at the expense of the owner of the backflow preventer.

m. Amend Section P2903.4.2, Backflow prevention device or check valve.

i. Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment, a device for controlling pressure shall be installed at an accessible location between the checking device and the water heating equipment to limit thermal expansion of the water being heated to not more than 80 psi (552 kPa) static pressure at any fixture on the system. A potable water expansion tank or auxiliary relief valve set at 80 psi (552 kPa) shall be acceptable. The auxiliary relief valve shall be in addition to the water heater safety relief valve. This thermal expansion control device shall be designed and trimmed for repeated operation. The valve shall be a minimum 1/2-inch pipe size, shall be adjustable and calibrated, and shall include a tag describing its function.

n. Amend Section P2905.2, Lead content.

i. Water Piping Quality. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free.

(a) Exception. The lead free requirement above shall not apply to:

(i.) leaded joints necessary for the repair of existing cast iron pipes;

(ii.) fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or,

(iii.) toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

o. Amend Table P2905.4, Water Service Pipe.

i.

**TABLE P2905.4
WATER SERVICE PIPE**

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, or WL, only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; ASTM F 2262; CSA B137.10M
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 876; ASTM F 877; CSA B137.5
Ductile iron water pipe	AWWA C151; AWWA C115
Galvanized steel pipe (above ground use only)	ASTM A 53
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	ASTM F 1282; CSA B137.9
Polyethylene (PE) plastic pipe	ASTM D 2104; ASTM D 2239; AWWA C901; CSA B137.1
Polyethylene (PE) plastic tubing	ASTM D 2737; AWWA C901; CSA B137.1
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
Polyvinyl chloride (PVC) plastic pipe	ASTM D 1785; ASTM D 2241; ASTM D 2672; CSA B137.3
Stainless steel (Type 304/304L) pipe	ASTM A 312; ASTM A 778

Stainless steel (Type 316/316L) pipe	ASTM A 312; ASTM A 778
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p. Amend Table P2905.5, Water Distribution Pipe.

i.

**TABLE P2905.5
WATER DISTRIBUTION PIPE**

MATERIAL	STANDARD
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, or WL, only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 876; ASTM F 877; CSA B137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; ASTM F 2262; CSA B137.10M
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Galvanized steel pipe	ASTM A 53
Polyethylene/aluminum/polyethylene (PE-AL-PE) composite pipe	ASTM F 1282
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
Polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
Stainless steel (Type 304/304L) pipe	ASTM A 312; ASTM A 778

q. Amend Section P2905.6, Fittings.

i. Pipe fittings shall be approved for installation with the piping material installed and shall comply with the applicable standards listed in Table P2905.6. All pipe fittings used in water

supply systems shall also comply with NSF 61. For repairs all copper, brass and stainless steel joints below a building slab shall be brazed and/or welded in accordance with the requirements of this code, as appropriate. With the exception of heat fused polypropylene, all other joints and fittings for plastic pipe below a building slab are prohibited.

r. Amend Table P2905.6, Pipe Fittings.

i.

**TABLE P2905.6
PIPE FITTINGS**

MATERIAL	STANDARD
acrylonitrile butadiene styrene (ABS) plastic	ASTM D 2468
brass	ASTM F1974
cast-iron	ASME B16.4; ASME B16.12
chlorinated polyvinyl chloride (CPVC) plastic	ASSE 1061; ASTM D 2846; ASTM F 437; ASTM F 438; ASTM F 439; CSA B137.6
copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.26
cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-DPE)	ASTM F 1986
fittings for cross-linked polyethylene (PEX) plastic tubing	ASSE 1061; ASTM F 877; ASTM F 1807; ASTM F 1960; ASTM F 2080; ASTM F 2098; ASTM F 2159; ASTM F 2434; ASTM F 2735; CSA B137.5
gray iron and ductile iron	AWWA C110; AWWA C153
malleable iron	ASME B16.3
insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/polyethylene (PEX-AL-PEX)	ASTM F 1974; ASTM F 1281; ASTM F 1282; CSA B137.9; CSA B137.10
polyethylene (PE) plastic	CSA B137.1

ittings for polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 1807; ASTM F2098; ASTM F 2159; ASTM F 2735
polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
polyvinyl chloride (PVC) plastic	ASTM D 2464; ASTM D 2466; ASTM D 2467; CSA B137.2; CSA B137.3
stainless steel (Type 304/304L) pipe	ASTM A 312; ASTM A 778
stainless steel (Type 316/316L) pipe	ASTM A 312; ASTM A 778
steel	ASME B16.9; ASME B16.11; ASME B16.28

s.. Add Section P2910, Separation of Water Service from Contamination.

i. Add Section P2910.1, Separation of water service and sewer lines.

(a.) Underground water service pipe and the building drain or building sewer shall be horizontally separated by not less than 5 feet (1524 mm) of undisturbed or compacted earth.

(i.) Exceptions:

(a.) The required separation distance shall not apply where the bottom of the water service pipe within 5 feet (1524 mm) of the sewer is not less than 12 inches (305 mm) above the top of the highest point of the sewer and the sewer pipe materials conformed to Table P3002.2

(b.) Water service pipe is permitted to be located in the same trench with a building drain or building sewer, provided such sewer is constructed of materials listed in Table P3002.1(2) and the water service pipe is placed on a solid shelf excavated at one side of the common trench. The bottom of the water service pipe, at all points, shall be at least 12 inches (305mm) above the top of the sewer line at its highest point.

(c.) Any underground water service pipe which must cross a pipe that conveys sewage (e.g. building drains, building sewers, and other piping conveying sewage) shall have a minimum separation of 12 inches (305 mm) above the top of the sewer. The water service pipe is shall be sleeved to a point not less than 5 feet (1524 mm) horizontally from the sewer pipe centerline on both sides of such crossing with pipe materials listed in Table P2905.4, P3002.1(2), or P3002.2.

- t. Add Section P2910.2, Potable Water (Pressure) Lines Near Soil Absorption Trenches, Sand Filter Beds, Oxidation Ponds, and any Effluent Reduction Option (Effluent Reduction Fields, Rock Plant Filters, Spray Irrigation Systems, Overland Flow Systems, Mound Systems, or Subsurface Drip Disposal Systems).
 - i. Underground potable water (pressure) lines shall not be located within 25 feet (7.6 m) of any soil absorption trenches, sand filter beds, oxidation ponds, or any effluent reduction option including, but not limited to effluent reduction fields, rock plant filters, spray irrigation systems (from the edge of the spray and its drainage), overland flow systems (from the discharge point and field of flow), mound systems, or subsurface drip disposal systems which have been installed for either the disposal of septic tank effluent or mechanical treatment plant effluent.
- u. Add Section P2910.3, Potable Water (Pressure) Lines Near Septic Tanks, Mechanical Sewage Treatment Plants, and Pump Stations.
 - i. Underground potable water (pressure) lines shall not be located within 10 feet (3.0 m) of any septic tank, mechanical sewage treatment plant, or sewage pump station.
- v. Add Section P2910.4, Potable Water (Pressure) Lines Near Seepage Pit, Cesspool, or Sanitary Pit Privy.
 - i. Underground potable water (pressure) lines shall not be located within 50 feet (15.2m) of any seepage pit, cesspool, or sanitary pit privy.
- w. Add Section P2910.5, Reclaimed Water Lines.
 - i. Reclaimed water lines shall be considered and treated as though they are sewerage lines and shall be installed in accord with the spacing requirements of this Section for the protection of potable water lines.
- x. Add Section P2910.6, Stop and Waste Valves and Devices.
 - i. Combination stop and waste valves and cocks shall not be installed underground in a water service pipe, water supply system, or a water distribution system. Any fixture or device which incorporates a stop and waste feature is prohibited if the waste opening is underground or in any location that waste water or water-borne contaminants may enter the device or water supply from the ground or other source by reversal of flow.

9. Amend Chapter 30 Sanitary Drainage

a. Amend Section P3005.2.2, Horizontal Drains within buildings

i. Horizontal drains within buildings shall be provided with cleanouts as follows:

(a) All horizontal drains 3-inch nominal diameter or less, cleanouts shall be located at not more than 50 feet (15 200mm) intervals.

(b) For horizontal drains 4-inch nominal diameter through 6-inch nominal diameter, cleanouts shall be located at not more than 80 feet (24 400mm) intervals.

(c.) Horizontal drains larger than 6-inch nominal diameter shall be provided with cleanouts located at not more than 100 feet (30 480 mm) intervals.

b. Amend Section P3005.2.4, Change of direction.

i Each horizontal drainage pipe shall be provided with a cleanout at the upstream end of the pipe and in changes of direction over 45° (0.785 rad).

(a) Exceptions. The following plumbing arrangements are acceptable in lieu of the upstream cleanout:

(i.) "P" traps connected to the drainage piping with slip joints or ground joint connections;

(ii.) "P" traps into which floor drains, shower drains or tub drains with removable strainers discharge;

(iii) "P" traps into which the straight through type waste and overflow discharge with the overflow connecting to the branch of the tee;

(iv) "P" traps into which residential washing machines discharge;

(v.) test tees or cleanouts in a vertical pipe above the flood-level rim of the fixtures that the horizontal pipe serves and not more than 4-feet (1219 mm) above the finish floor.

c. Amend Section P3005.2.7, Building drain and building sewer junction.

i. There shall be a cleanout within 6 feet (1829 mm) of the junction of the building drain and building sewer. This cleanout shall be either inside or outside the building wall, provided that it is brought up to finish grade or to the lowest floor level. An approved two-way cleanout shall be permitted to serve as the required cleanout for both the building drain and the building sewer.

d. Amend Section P3005.4.1, Branch and stack sizing

i. Branches and stacks shall be sized in accordance with Table P3005.4.1. Below grade drain pipes shall be not less than 1 1/2 inches (38 mm) in diameter. Drain stacks shall be not smaller than the largest horizontal branch connected.

(a) Exceptions:

- (.i) A 4-inch by 3-inch (102 mm by 76 mm) closet bend or flange.
- (.ii) A 4-inch (102 mm) closet bend connected to a 3-inch (76 mm) stack tee shall not be prohibited.

e. Amend Table P3005.4.1, Maximum fixture units allowed to be connected to branches and stacks.

i.

TABLE P3005.4.1
MAXIMUM FIXTURE UNITS ALLOWED TO BE
CONNECTED TO BRANCHES AND STACKS

NOMINAL PIPE SIZE (inches)	ANY HORIZONTAL FIXTURE BRANCH	ANY ONE VERTICAL STACK OR DRAIN
1 ¹ / ₄ ^a	—	—
1 ¹ / ₂ ^b	3	4
2 ^b	6	10
2 ¹ / ₂ ^b	12	20
3	20 (not over two water closets)	30 (not over six water closets)
4	160	240

For SI: 1 inch = 25.4 mm.

- a. $1\frac{1}{4}$ -inch pipe size limited to a single-fixture drain or trap arm. See Table P3201.7.
 - b. No water closets.
- f. Amend Section P3005.4.22, Building drain and sewer size and slope.
- i. Pipe sizes and slope shall be determined from Table P3005.4.2 on the basis of drainage load in fixture units (d.f.u.) computed from Table P3004.1.
- g. Amend Table P3005.4.2, Maximum number of fixture units allowed to be connected to the building drain, building drain branches or the building sewer.
- i.

TABLE P3005.4.2
MAXIMUM NUMBER OF FIXTURE UNITS ALLOWED
TO BE CONNECTED TO THE BUILDING DRAIN,
BUILDING DRAIN BRANCHES OR THE BUILDING SEWER

DIAMETER OF PIPE (inches)	SLOPE PER FOOT		
	$1\frac{1}{8}$ inch	$1\frac{1}{4}$ inch	$1\frac{1}{2}$ inch
$1\frac{1}{2}$ a, b	—	Note a	Note a
2^b	—	21	27
$2\frac{1}{2}^b$	—	24	31
3	20 (not over two water closets)	27 (not over two water closets)	36 (not over two water closets)
4	180	216	250

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. $1\frac{1}{2}$ -inch pipe size limited to a building drain branch serving not more than two waste fixtures, or not more than one waste fixture if serving a pumped discharge fixture or garbage grinder discharge.
- b. No water closets.
- h. Add Section P3005.6, Minimum size of soil and waste stacks.
 - i. No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 water closet connection shall not be considered as a reduction in pipe size. The soil or waste stack shall run undiminished in size from its connection to the building drain to its connection to the stack vent.
- i. Add Section P3005.7, Minimum size of drain serving a water closet.
 - i. The minimum size of any building drain serving a water closet shall be 3 inches. Not more than two water closets shall discharge into a horizontal 3-inch building drain.
- j. Add Section P3005.8, Minimum size of building sewer.
 - i. In accordance with P3001.4, no building sewer shall be less than 4 inches in size with the exception of force lines.
- k. Add Section P3005.9, Underground drainage piping.
 - i. Any portion of the drainage system installed underground or below a basement or cellar shall not be less than 2-inch diameter.
- l. Amend Section P3009.1, Scope.
 - i. Gray water recycling systems shall only be considered on an individual basis and plans and specifications for any proposed gray water recycling system shall be submitted to the code official or local jurisdiction for review and approval prior to construction. Such plans and specifications shall be appropriately sealed and signed by a Louisiana Registered Professional Engineer. Potable makeup water supply lines shall be protected against backflow by an air gap or reduced pressure principal backflow prevention assembly. The provisions of Section P3009 shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals and for subsurface landscape irrigation. See Figures P3009.1(1) and P3009.1(2).
- m. Amend Section P3009.14, Landscape irrigation systems.

i. In accordance with provisions of the *Louisiana State Sanitary Code* [LAC 51:XIII (Sewage Disposal)], a permit shall be obtained from the state health officer prior to the construction of any subsurface landscape irrigation system which utilizes gray water. Subsurface landscape irrigation systems shall comply with Sections P3009.14.1 through P3009.14.11; however, the regulations of the *Louisiana State Sanitary Code* shall supersede any provisions of P3009.14.1 through P3009.14.11 when a conflict exists or a provision is less stringent than those contained in the *Louisiana State Sanitary Code*.

n. Amend Section P3010.1, Air break.

i. An air break shall be provided between the indirect waste pipe and the trap seal of the waste receptor or standpipe. The air break (drainage system) between the indirect waste and the building drainage system shall be installed such that the level of the lowest outlet located on the fixture, device, appliance or apparatus (to which the indirect waste pipe connects) is above the flood-level rim of the receiving sink or other receptor by a vertical distance of at least twice the diameter of the effective opening of the indirect waste pipe, but in no case less than 2 inches (51 mm). In addition, the indirect waste pipe shall terminate below the flood-level rim of the receiving sink or other receptor a distance equal to not more than one-half (1/2) the diameter of the effective opening of the indirect waste pipe.

o. Amend Section P3104.1, Connection.

i. All individual branch and circuit vents shall connect to a vent stack, stack vent or extend to the open air.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D), 40:1730.26(1) and Act 836 of the 2014 Regular Session of the Louisiana Legislature.

HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 41:

p. Amend Section P3201.5, Prohibited trap designs.

i. The following types of traps are prohibited:

(a.) Bell traps.

(b.) Separate fixture traps that depend on interior partitions for the water seal, except those lavatory traps made of plastic, stainless steel or other corrosion-resistant material.

(c.) "S" traps.

(d.) Drum traps.

(e.) Trap designs with moving parts.

(f.) Crown-vented traps.

(g.) Running traps.

(i.) Exceptions:

(a.) A running trap with cleanout may be allowed on condensate waste lines and for certain floor level fixtures installed on a combination waste and vent system.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D) and 40:1730.26(1).

HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 33:291 (February 2007), amended LR 34:93 (January 2008), LR 34:883 (May 2008), LR 34:2205 (October 2008), LR 35:1904 (September 2009), LR 36:2574 (November 2010), effective January 1, 2011, LR 37:601 (February 2011), LR 37:913 (March 2011), repromulgated LR 37:2187 (July 2011), repromulgated LR 37:2726 (September 2011), LR 37:3065 (October 2011), LR 38:1994 (August 2012), amended by the Department of Public Safety and Corrections, Uniform Construction Code Council, LR 39:1825 (July 2013), LR 39:2512 (September 2013), LR 40:2609 (December 2014), amended by the Department of Public Safety and Corrections, Office of State Fire Marshal, LR 41:2383 (November 2015), amended LR 41:

q. Delete Section P3114, Air Admittance Valves in its entirety and all referencing sections.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D) , 40:1730.26(1) and Act 836 of the 2014 Regular Session of the Louisiana Legislature.

HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 41:

§111. The Louisiana State Plumbing Code (Formerly LAC 55:VI.301.A.5)

A. *The International Plumbing Code*. The appendices of that code may be adopted as needed, but the specific appendix or appendices shall be referenced by name or letter designation at the time of adoption. (per R.S. 40:1730.28 eff. 1/1/16)

A. Amend Chapter One.

1. Amend Section [A] 101.2, Scope.

(a.) Section [A] 101.2 Scope. The provisions of this code shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within this jurisdiction. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the *International Fuel Gas Code*. Provisions in the appendices shall not apply unless specifically adopted.

(i.) Nothing in this Part or any provision adopted pursuant to this Part shall prohibit the Department of Health and Hospitals from the following:

Code.

- (a.) Regulating stored water temperatures through enforcement of the *Sanitary*

- (b.) Regulating medical gas and medical vacuum systems.

- (i.) Exception:

- (a.) Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the *International Residential Code*.

B. Amend Chapter Two Definitions.

ADULT DAY CARE CENTER---any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of 10 or more people 18 years and older, not related to the caregiver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the person's home.

AIR BREAK (DRAINAGE SYSTEM)--- A piping arrangement in which a drain from a fixture, appliance or device discharges indirectly into another fixture, or receptacle at a point below the flood level rim and above the trap seal. An unobstructed horizontal distance of free atmosphere between the outside of the indirect waste pipe and the inside of the waster receptor must exist so as to allow a back-flow of sewage to spill over the flood level rim of the receiving sink or other receptor to prevent such back-flow from reaching the fixture, device, appliance or apparatus served by the indirect waste pipe.

BAROMETRIC LOOP---A fabricated piping arrangement rising at least 35 feet at its topmost point above the highest fixture it supplies. It is utilized in water supply systems to protect against backsiphonage backflow.

BUILDING DRAIN---That part of the lowest piping of a drainage system that receives the discharge from soil, waste and other drainage pipes in side and that extends 30 inches (762 mm) in developed length of pipe beyond the exterior walls of the building and conveys the drainage to the building sewer.

- a. Sanitary---A *building drain* that conveys sewage only.

- b. Storm---A *building drain* that conveys storm water or other drainage, but not sewage.

BUILDING SEWER---That part of the drainage system that extends from the end of the building drain and conveys the discharge to a community sewerage system, commercial treatment facility, or individual sewerage system or other point of disposal.

- a.Sanitary---A *building drain* that conveys sewage only.

b. Storm---A *building drain* that conveys storm water or other drainage, but not sewage.

BY-PASS---Any system of piping or other arrangement whereby the water may be diverted around any part or portion of the water supply system including, but not limited to, around an installed backflow preventer.

CHILD DAY CARE CENTER---any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of seven or more children under the age of 18, not related to the care giver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the children's home. A day care center that remains open for more than 20 hours in a continuous seven day week, and in which no individual child remains for more than 24 hours in one continuous stay shall be known as a full-time day care center.

COMMERCIAL TREATMENT FACILITY---Any treatment facility which is required by the state health officer whenever the use of an individual sewerage system is unfeasible or not authorized.

COMMUNITY SEWERAGE SYSTEM---Any sewerage system which serves multiple connections and consists of a collection and/or pumping system/transport system and treatment facility.

CONTAINMENT---A method of backflow prevention which requires a backflow prevention device or method on the water service pipe to isolate the customer from the water main.

CONTINUOUS WATER PRESSURE ---A condition when a backflow preventer is continuously subjected to the upstream water supply pressure for a period of 12 hours or more.

DAY CARE CENTERS---includes adult and child day care centers.

DEGREE OF HAZARD---An evaluation of the potential risk to public health if the public were to be exposed to contaminated water caused by an unprotected or inadequately protected cross connection.

DOMESTIC WELL---A water well used exclusively to supply the household needs of the owner/lessee and his family. Uses may include human consumption, sanitary purposes, lawn and garden watering and caring for pets.

DUAL CHECK VALVE---A device having two spring loaded, independently operated check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter. Not an approved backflow prevention device.

FIXTURE ISOLATION---A method of backflow prevention in which a backflow preventer is located to protect the potable water of a water supply system against a cross connection at a fixture located within the structure or premises itself.

HUMAN CONSUMPTION---The use of water by humans for drinking, cooking, bathing, showering, hand washing, dishwashing, or maintaining oral hygiene.

INDIRECT WASTE PIPE---A waste pipe that does not connect directly with the drainage system, but that discharges into the drainage system through an *air break* or *air gap* into a trap, fixture, or *waste receptor*.

INDIVIDUAL SEWERAGE SYSTEM---Any system of piping (excluding the building drain and building sewer), and/or collection and/or transport system which serves one or more connections, and/or pumping facility, and treatment facility, all located on the property where the sewage originates; and which utilizes the individual sewerage system technology which is set forth in LAC 51:XIII.Chapter 7.Subchapter B, or a commercial treatment facility which is specifically authorized for use by the state health officer.

INFANT---any child under the age of 12 months.

LEAD FREE.

a. in general:

i. not containing more than 0.2 percent lead when used with respect to solder and flux; and,

ii. not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

b. calculation:

i. The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula:

(a). For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product. The lead content of the material used to produce wetted components shall be used to determine compliance with Clause a.ii. above. For lead content of materials that are provided as a range, the maximum content of the range shall be used.

MASTER METER---A water meter serving multiple residential dwelling units or multiple commercial units. Individual units may or may not be sub-metered.

PLUMBING---The practice, materials and fixtures utilized in the installation, maintenance, extension and alteration of all piping, fixtures, plumbing appliances and plumbing appurtenances, within or adjacent to any structure, in connection with sanitary drainage or storm drainage facilities; venting systems; and public or private water supply systems. Plumbing

includes yard piping connecting sanitary or storm drainage with any point of disposal or other acceptable terminal as well as the water service piping connecting to a water main or other source of water supply. Plumbing does not include the installation, alteration, repair or maintenance of automatic fire sprinklers and including the underground or overhead water supply beginning at the outlet of an approved backflow prevention device installed under the plumbing provisions of this code where water is to be used or is intended to be used exclusively for fire protection purposes.

POTABLE WATER---Water free from impurities present in amount sufficient to cause disease or harmful physiological effects and conforming to the bacteriological, physical, radiological, and chemical quality requirements of the federal Safe Drinking Water Act or the regulations of the Department of Health and Hospitals, Office of Public Health.

POTABLE WATER SUPPLY--- A publicly owned or privately owned water supply system which purveys potable water.

PRESCHOOL---any child less than five years of age.

PRIVATE WATER SUPPLY---A potable water supply that does not meet the criteria for a public water supply including, but not limited to a domestic well.

PUBLIC OR PUBLIC UTILIZATION---In the classification of plumbing fixtures, "public" applies to fixtures in general toilet rooms of schools, gymnasiums, hotels, hotel/motel rooms, airports, bus and railroad stations, public buildings, bars, public comfort stations, office buildings, stadiums, stores, restaurants, patient rooms and other installations where a number of fixtures are installed so that their utilization is similarly unrestricted.

PUBLIC WATER SUPPLY---Public water system.

PUBLIC WATER SYSTEM---A particular type of *water supply system* intended to provide *potable water* to the public having at least fifteen service connections or regularly serving an average of at least twenty-five individuals daily at least sixty days out of the year.

PUTRESCIBLE WASTE---Waste which is subject to spoilage, rot, or decomposition and may give rise to foul smelling, offensive odors and/or is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies. It includes wastes from the preparation and consumption of food, vegetable matter, and animal offal and carcasses.

RESIDENTIAL FACILITY---any place, facility, or home operated by any person who receives therein four or more people who are not related to such person for supervision, care, lodging and maintenance with or without transfer of custody. This shall include, but not be limited to group homes, community homes, maternity homes, juvenile detention centers, emergency shelters, halfway homes and schools for the mentally retarded.

SANITARY SEWAGE---See "Sewage."

SEWER---A pipe or other constructed conveyance which conveys sewage, rainwater, surface water, subsurface water, or similar liquid wastes.

- a. Building sewer---See “Building sewer.”
- b. Public sewer---A common sewer directly controlled by a public authority or utilized by the public
- c. Sanitary sewer---A *sewer* that carries sewage and excludes storm, surface and ground water.
- d. Storm sewer--- A *sewer* that conveys rainwater, surface water, subsurface water and similar liquid wastes.

SEWERAGE SYSTEM---Any system of piping (excluding the building drain and building sewer) and/or collection and/or transport system and/or pumping facility and/or treatment facility, all for the purpose of collecting, transporting, pumping, treating and/or disposing of sanitary sewage.

WASTE RECEPTOR---A *plumbing fixture* designed specifically to collect and dispose of liquid waste received from an indirect waste pipe which is connected to other *plumbing fixtures*, plumbing equipment or appliances which are required to discharge to the *drainage system* through either an *air gap (drainage system)* or *air break (drainage system)*. The following type fixtures fall within the classification of *indirect waste receptors: floor sinks, curbed cleaning facilities with floor drain, and standpipe drains with integral air gaps (drainage system)* or *air breaks (drainage system)*, and may include others when approved as such by the *code official*.

WATER MAIN---A water supply pipe or system of pipes installed and maintained by a city, township, county, Public Utility Company or other public entity, on public property, in the street or in an approved dedicated easement of public or community use. This term shall also mean the principal artery (or arteries) used for the distribution of potable water to consumers by any water supplier including, but not limited to, those public water systems which are not owned by the public and which may not be on public property.

WATER SUPPLIER---A *person* who owns or operates a *water supply system* including, but not limited to, a person who owns or operates a *public water system*.

WATER SUPPLY SYSTEM---The *water service pipe, water distribution pipes*, and the necessary connecting pipes, fittings, control valves and all appurtenances in or adjacent to the structure or premise. This term shall also mean the system of pipes or other constructed

conveyances, structures and facilities through which water is obtained, treated to make it potable (if necessary) and then distributed (with or without charge) for human consumption or other use.

C. Amend Chapter 3, General Regulations.

1. Add Section 303.5, Water Piping Quality.

a. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free.

(i.) Exception. The lead free requirement above shall not apply to:

(a.) leaded joints necessary for the repair of existing cast iron pipes;

(b.) fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or,

(c.) toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

2. Amend Section [B] 309.2, Flood hazard.

a. For structures located in flood hazard areas, the following systems and equipment shall be located and installed as required by Section 1612 of the *International Building Code*.

(i.) NOTE: Where a private water supply is used it must meet the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells) shall be utilized.

(ii.) Exception:

(a.) The following systems are permitted to be located below the elevation required by Section 1612 of the *International Building Code* for utilities and attendant equipment provided that the systems are designed and installed to prevent water from entering or accumulating within their components and the systems are constructed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to up to such elevation.

(b.) All water service pipes.

(c.) All sanitary drainage piping.

(d.) Storm drainage piping.

(e.) Manhole covers shall be sealed, except where elevated to or above the design flood elevation.

(f.) All other plumbing fixtures, faucets, fixture fittings, piping systems and equipment.

(g.) Water heaters.

(h.) Vents and vent systems.

3. Amend Section 312.1, Required Tests.

a. The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.10 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The code official shall verify the test results. The equipment, material, power and labor necessary for the inspection and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. All plumbing system piping shall be tested with either water or by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain whether the pressure has reached all parts of the system.

4. Amend Section 312.3, Drainage and vent test.

a. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi (34.5 kPa) or sufficient to balance a 10-inch (254 mm) column of mercury. This pressure shall be held for a test period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made prior to the beginning of the test period.

5. Amend Section 312.5, Water supply system test.

a. Upon completion of a section of or the entire water supply system, the system, or portion completed, shall be tested and proved tight under a water pressure not less than 1.5 times the working pressure of the system, but not less 140 psi; or, for piping systems other than plastic, by an air test of not less than 50 psi (344 kPa). This pressure shall be held for not less than 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 107.

6. Amend Section 312.10, Installation, inspection and testing of backflow prevention assemblies, barometric loops and air gaps.

a. Installation, inspection and testing shall comply with Sections 312.10.1 through 312.10.3.

7. Amend Section 312.10.1, Inspections.

a. Annual inspections shall be made of all backflow prevention assemblies, barometric loops and air gaps to determine whether they are operable, properly installed and maintained, and meet testing/code requirements. Inspections of backflow prevention devices including barometric loops and air gaps used to protect high degree of hazard cross connections shall be documented in writing and the report provided to the owner of the backflow prevention device.

8. Amend Section 312.10.2, Testing.

a. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10.1, USC's FCCC & HR's "Manual of Cross-Connection Control", or UFL's TREEO's "Backflow Prevention – Theory and Practice". Any backflow preventer which is found to be defective shall be repaired.

9. Add Section 312.10.3, Owner Responsibilities.

- a. The owner of the backflow prevention assemblies shall comply with the following:
- i. It shall be the duty of the owner of the backflow prevention assembly to see that these tests are made in a timely manner in accord with the frequency of field testing specified in 312.10.2 of this code.
 - ii. The owner shall notify the building official, and/or water supplier (for those devices associated with containment) in advance when the tests are to be undertaken so that the building official and/or water supplier may witness the tests if so desired.
 - iii. Upon completion, the owner shall provide records of such tests, repairs, overhauls, or replacements to the building official or water supplier (for those devices associated with containment). In addition, all records shall be kept by the owner of the backflow prevention device or method for at least 5 years and, upon specific request, shall be made available to the building official or water supplier.
 - iv. All tests, repairs, overhauls or replacements shall be at the expense of the owner of the backflow preventer.

10. Add Section 314.3, Plenum.

a. No floor drain or other plumbing fixture except electric water heaters shall be installed in a room containing air handling machinery when such room is used as a plenum. When rooms are used as a plenum, equipment drains shall be conveyed through an indirect waste receptor located outside such rooms or other approved point of disposal.

11. Amend Section 316.1.2, Submittal.

a. The registered design professional engineer shall indicate on the permit application that the plumbing system is an alternative engineered design. The permit and permanent permit records shall indicate that an alternative engineered design was part of the approved installation.

D. Amend Chapter 4.

1. Amend Section 403.3.3, Location of toilet facilities in occupancies other than malls and educational buildings.

a. In occupancies other than covered and open mall buildings, and educational buildings, the required public and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

2. Add Section 403.3.7, Location of toilet facilities in educational buildings.

a. For primary schools, and other special types of institutions with classrooms, for children through 12 years of age, separate boys' and girls' toilet room doors shall not be further than 200 feet from any classroom doors. For secondary schools, and other special types of institutions with classrooms, for persons of secondary school age, separate boys' and girls' toilet room doors shall not be further than 400 feet from any classroom door. In multi-storied buildings, there shall be boys' and girls' toilet rooms on each floor, having the number of plumbing fixtures as specified in Table 403.1 of this Code for the classroom population of that floor. When new educational buildings are added to an existing campus, the restroom facilities and drinking fountains located in the existing building(s) may be used to serve the occupants of the new educational building(s) only when all of the following provisions are met:

- (i.) Covered walkways consisting of a roof designed to protect the students and faculty from precipitation having a minimum width of 6 feet and located above a slip-resistant concrete or other acceptable hard surfaces leading to and from the restrooms shall be provided whenever children or faculty have to walk outside to access the toilet room;
- (ii.) The path of travel from the classroom door to the toilet room doors (boys' or girls') does not exceed the applicable distance specified in this section; and,
- (iii.) The number of occupants of the new building does not cause an increase in the school population that would trigger the need for more fixtures per Table 403.1 (Minimum Number of Required Plumbing Fixtures).

3. Add Section 403.6, Other fixture requirements for licensed pre-schools, day care centers, and residential facilities.

a. Additional plumbing fixtures shall be provided in day care centers and residential facilities as required by this Section.

4. Add Section 403.6.1, Food preparation.

a. The food preparation area in pre-schools, day cares, and residential facilities shall meet the following requirements. The food preparation, storage and handling where six or less individuals are cared for shall provide a two-compartment sink and an approved domestic type dishwasher. Where the number of individuals cared for is between 7 and 15, either a three-compartment sink, or an approved domestic or commercial type dishwashing machine and a two-compartment sink with hot and cold running water shall be provided. Where 16 or more individuals are cared for, a three-compartment sink must be provided. If a dishwasher is also utilized in these instances (16 or more individuals), it must be a commercial type and it shall be in addition to the required three-compartment sink. One laundry tray, service sink, or curbed cleaning facility with floor drain shall also be provided on the premises for cleaning of mops and mop water disposal (for facilities caring for 16 or more individuals).

5. Add Section 403.6.2, Caring for children between 0 and 4 years of age.

a. In child day care facilities, a hand washing sink shall be in or adjacent to each diaper changing area. In addition, one extra laundry tray, service sink, or similar fixture is required to clean and sanitize toilet training potties immediately after each use. Such fixture shall be dedicated solely for this purpose and shall not be in the food preparation/storage, utensil washing, or dining areas. Training potties shall not be counted as toilets in determining the minimum fixture requirements of Table 403.1. Fixtures shall be size appropriate for the age of the children being cared for (toilets 11 inches maximum height and lavatories 22 inches maximum height), or if standard size fixtures are used, safe, cleanable step aids shall be provided.

6. Add Section 410.5, Minimum Required Separation from Contamination.

a. Drinking fountain fixtures shall provide a minimum requirement of 18 inches of separation from its water outlet (spigot) to any source of contamination. Combination sink/drinking fountain units shall provide a minimum of 18 inches between the drinking fountain water outlet (spigot) and the nearest outside rim of the sink bowl [or other source(s) of contamination].

(i.) Exception:

a. This 18 inch minimum separation may only be reduced by the use of a vertical shield made of a smooth, easily cleaned surface that is attached flush with the top surface of the unit and extends to a distance at least 18 inches in height above the drinking fountain water outlet (spigot) level.

b. Prohibited Fixture. Combination sink/drinking fountain units which share the same sink bowl are prohibited except in individual prison cells.”

7. Amend Section 412, Floor and Trench Drains.

a. Add Section 412.5, Miscellaneous areas.

(i.) A floor drain shall be required in public toilet rooms as specified under LSPC XIV.415E.2a, Excluding hotel/motel guest rooms or patient rooms of a hospital or nursing home.

(ii.) A floor drain shall be required in the recess room for sterilizers in a medical facility as specified under LSPC XIV.415.E.2.c and LSPC XIV.1305.C.2.a.

(iii.) Floor drains are not permitted in general food storage areas, for example, a food storage closet or room as specified under LSPC XIV.415.E.3.c.

8. Amend Section 417.3, Shower water outlet.

a. Waste outlets serving showers shall be not less than 2 inches (50.8 mm) in diameter and, for other than waster outlets in bathtubs, shall have removable strainers not less than 3 inches (76 mm) in diameter with strainer openings not less than ¼ inch (6.4 mm) in least dimension. Where each shower space is not provided with an individual waste outlet, the waste outlet shall be located and the floor pitched so that waste from one shower does not flow over the floor area serving another shower. Waste outlets shall be fastened to the waste pipe in an approved manner.

9. Add Section 418.4, Handwash Sinks.

a. Dedicated handwash sinks shall be located to permit convenient use by all employees in food processing, food preparation, and other food handling areas.

b. Each commercial body art (tattoo) facility shall provide a hand washing sink to be used solely for hand washing in body art procedure area for the exclusive use of the operator. A separate instrument sink shall also be provided for the sole purpose of cleaning instruments and equipment prior to sterilization.

c. A hand washing sink may not be used for purposes other than hand washing.

d. Sinks used for food preparation or for washing and sanitizing of equipment and utensils shall not be used for hand washing.

10. Add Section 418.5, Manual Warewashing, Sink Requirements.

a. A sink with at least three compartments constructed of smooth, impervious non-corrosive material such as stainless steel or high density food grade polymer plastic shall be provided in slaughter rooms, packing rooms, retail food establishments, and other food handling areas for manual washing, rinsing and sanitizing equipment and utensils except where there are

no utensils or equipment to wash, rinse and sanitize; i.e., such as in a facility with only prepackaged foods.

11. Add Section 422.11, Handwashing Facilities.

a. Medical facilities, including doctor's office and clinics, shall be provided with hand washing facilities within each patient examination and treatment room. The hand wash facility shall be provided with hot and cold water delivered via a mixing faucet.

12. Amend Section 425.2, Flushometer valves and tanks.

a. Flushometer valves and tanks shall comply with ASSE 1037 or CSA B125.3. I Vacuum breakers on flushometer valves shall conform to the performance requirements of ASSE 1001 or CSA B64. 1.1. Flushometer valves shall be equipped with an approved vacuum breaker. The vacuum breaker shall be installed on the discharge side of the flushing valve with the critical level at least 4 inches (102 mm) above the overflow rim of the bowl. Access shall be provided to vacuum breakers. Flushometer valves shall be of the water conservation type and shall not be used where the water pressure is lower than the minimum required for normal operation. When operated, the valve shall automatically complete the cycle of operation, opening fully and closing positively under the water supply pressure. Each flushometer valve shall be provided with a means for regulating the flow through the valve. The trap seal to the fixture shall be automatically refilled after each flushing cycle.

E. Amend Chapter 5, Water Heaters.

1. Amend Section 503.1, Cold water line valve.

a. The cold water branch line from the main water supply line to each hot water storage tank or water heater shall be provided with a full port ball valve, located near the equipment and serving only the hot water storage tank or water heater. The valve shall not interfere or cause a disruption of the cold water supply to the remainder of the cold water system. The valve shall be provided with access on the same floor level as the water heater served.

2. Amend Section 504.7, Required pan.

a. Where a storage tank-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a galvanized steel pan having a material thickness of not less than 0.0276-inch (0.7 mm), or other pans approved for such use.

(i.) Exception:

(a.) Electric water heaters may rest in a high impact plastic pan of at least 1/16-inch (1.6 mm) thickness.

3. Amend Section 504.7.1, Pan size and drain.

a. The drain pan shall be a minimum of 2-inches (2") (50.8 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 1-inch (25.4 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4.

F. Amend Chapter 6, Water Supply and Distribution.

1. Amend Section 602.3, Individual water supply.

a. Where a potable public water supply is not available, a private water supply meeting the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells) shall be utilized.

(i) Delete and remove Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5 and 602.3.5.1, Pump Enclosure.

2. Amend Section 603.2, Separation of water service and sewer lines.

a. Underground water service pipe and the building drain or building sewer shall be horizontally separated by not less than 5-feet (1524 mm) of undisturbed or compacted earth.

(i.) Exceptions:

(a.) The required separation distance shall not apply where the bottom of the water service pipe within 5 feet (1524 mm) of the sewer is not less than 12 inches (305 mm) above the top of the highest point of the sewer and the sewer pipe materials conform to Table 702.3.

(b.) Water service pipe is permitted to be located in the same trench with a building drain or building sewer, provided such sewer is constructed of materials listed in Table 702.2 and the water service pipe is placed on a solid shelf excavated at one side of the common trench. The bottom of the water service pipe, at all points, shall be at least 12 inches (305 mm) above the top of the sewer line at its highest point.

(c.) Any underground water service pipe which must cross a pipe that conveys sewage (e.g., building drains, building sewers, and other piping conveying sewage) shall have a minimum vertical separation of 12 inches (305 mm) above the top of the sewer. The water service pipe shall be sleeved to a point not less than 5 feet (1524 mm) horizontally from the sewer pipe centerline on both sides of such crossing with pipe materials listed in Table 605.3, 702.2 or 702.3.

3. Add Section 603.3, Potable Water (Pressure) Lines Near Soil Absorption Trenches, Sand Filter Beds, Oxidation Ponds, and any Effluent Reduction Option (Effluent Reduction Fields, Rock Plant Filters, Spray Irrigation Systems, Overland Flow Systems, Mound Systems, or Subsurface Drip Disposal Systems).

a. Underground potable water (pressure) lines shall not be located within 25 feet (7.6 m) of any soil absorption trenches, sand filter beds, oxidation ponds, or any effluent reduction option including, but not limited to effluent reduction fields, rock plant filters, spray irrigation systems (from the edge of the spray and its drainage), overland flow systems (from the discharge point and field of flow), mound systems, or subsurface drip disposal systems which have been installed for either the disposal of septic tank effluent or mechanical treatment plant effluent.

4. Add Section 603.4, Potable Water (Pressure) Lines Near Septic Tanks, Mechanical Sewage Treatment Plants, and Pump Stations.

a. Underground potable water (pressure) lines shall not be located within 10 feet (3.0 m) of any septic tank, mechanical sewage treatment plant, or sewage pump station.

5. Add Section 603.5, Potable Water (Pressure) Lines Near Seepage Pit, Cesspool, or Sanitary Pit Privy.

a. Underground potable water (pressure) lines shall not be located within 50 feet (15.2m) of any seepage pit, cesspool, or sanitary pit privy.

6. Add 603.6, Reclaimed Water Lines.

a. Reclaimed water lines shall be considered and treated as though they are sewerage lines and shall be installed in accord with the spacing requirements of this Section for the protection of potable water lines.

7. Add Section 603.7, Stop and Waste Valves and Devices.

a. Combination stop and waste valves and cocks shall not be installed underground in a water service pipe, water supply system, or a water distribution system. Any fixture or device which incorporates a stop and waste feature is prohibited if the waste opening is underground or in any location that waste water or water-borne contaminants may enter the device or water supply from the ground or other source by reversal of flow.

8. Amend Table 604.5, Minimum Sizes of Fixture Water Supply Lines.

a.

TABLE 604.5
MINIMUM SIZES OF FIXTURE WATER SUPPLY PIPES

FIXTURE	MINIMUM PIPE SIZE (inch)
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Bathubs ^a (60x 32 and smaller)	$\frac{1}{2}$
Bathubs ^a (larger than 60x 32)	$\frac{1}{2}$
Bidet	$\frac{3}{8}$
Combination sink and tray	$\frac{1}{2}$
Dishwasher, domestic ^a	$\frac{1}{2}$
Drinking fountain	$\frac{1}{2}$
Hose bibbs	$\frac{1}{2}$
Kitchen sink ^a	$\frac{1}{2}$
Kitchen sink , Commercial	$\frac{3}{4}$
Lavatory	$\frac{1}{2}$
Shower, single head ^a	$\frac{1}{2}$
Sinks, flushing rim	$\frac{3}{4}$
Sinks, service	$\frac{1}{2}$
Urinal, flush tank	$\frac{1}{2}$
Urinal, flushometer valve	$\frac{3}{4}$
Wall hydrant	$\frac{1}{2}$

Water closet, flush tank	$\frac{3}{8}$
Water closet, flushometer valve	1
Water closet, flushometer tank	$\frac{1}{2}$
Water closet, one piece ^a	$\frac{1}{2}$

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm,

1 pound per square inch = 6.895 kPa.

- a. Where the developed length of the distribution line is 60 feet or less, and the available pressure at the meter is 35 psi or greater, the minimum size of an individual distribution line supplied from a manifold and installed as part of a parallel water distribution system shall be one nominal tube size smaller than the sizes indicated.

9. Amend Section 605.2, Lead content of water supply pipe and fittings.

a. **Water Piping Quality.** All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free.

- (i.) Exception. The lead free requirement above shall not apply to:

- (a.) leaded joints necessary for the repair of existing cast iron pipes;
- (b.) fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or
- (c.) toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.604.

10. Amend Section 605.3, Water service pipe with corresponding Table 605.3.

a. Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.3. Water service pipe or tubing, installed underground and outside of the structure, shall have a working pressure rating of not less than 160 psi (1100 kPa) at 73.4°F (23°C). Where the water pressure exceeds 160 psi (1100 kPa) piping material shall have a working pressure rating not less than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. All ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

- (i.)

TABLE 605.3
WATER SERVICE PIPE

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic pipe and tubing	ASTM F 876; ASTM F 877; AWWA C904; CSA B137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; ASTM F 2262; CSA B137.10M
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Ductile iron water pipe	AWWA C151/A21.51; AWWA C115/A21.15
Galvanized steel pipe	ASTM A 53
Polyethylene (PE) plastic pipe	ASTM D 2239; ASTM D 3035; AWWA C901; CSA B137.1
Polyethylene (PE) plastic tubing	ASTM D 2737; AWWA C901; CSA B137.1
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	ASTM F 1282; CSA B137.9
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
Polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
Polyvinyl chloride (PVC) plastic pipe	ASTM D 1785; ASTM D 2241; ASTM D 2672; CSA B137.3
Stainless steel pipe (Type 304/304L)	ASTM A 312; ASTM A 778

Stainless steel pipe (Type 316/316L)	ASTM A 312; ASTM A 778
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11. Amend Section 605.3.1, Dual check-valve-type backflow preventer.

a. Dual check-valve backflow preventers installed on the water supply system shall comply with ASSE 1024 or CSA B64.6. These devices, which are commonly installed immediately downstream of water meters by water suppliers, are not approved backflow prevention devices and are only allowed to be installed when no cross connections exist downstream of the device or when all downstream cross connections are properly protected by approved backflow prevention devices, assemblies, or methods in accordance with Section 608 of this code.

12. Amend Table 605.4, Water Distribution Pipe.

a.

**TABLE 605.4
WATER DISTRIBUTION PIPE**

MATERIAL	STANDARD
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 876; ASTM F 877; CSA B137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; ASTM F 2262; CSA B137.10M
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Ductile iron pipe	AWWA C151/A21.51; AWWA C115/A21.15
Galvanized steel pipe	ASTM A 53

Polyethylene/aluminum/polyethylene (PE-AL-PE) composite pipe	ASTM F 1282
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
Polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
Stainless steel pipe (Type 304/304L)	ASTM A 312; ASTM A 778
Stainless steel pipe (Type 316/316L)	ASTM A 312; ASTM A 778

13. Amend Section 605.5, Fittings.

a. Pipe fittings shall be approved for installation with the piping material installed and shall comply with the applicable standards listed in Table 605.5. Pipe fittings utilized in water supply systems shall also comply with NSF 61. Ductile and gray iron pipe fittings shall be cement mortar lined in accordance with AWWA C104. For repairs all copper, brass and stainless steel joints below a building slab shall be brazed and/or welded in accordance with the requirements of this code, as appropriate. With the exception of heat fused polypropylene, all other joints and fittings for plastic pipe below a building slab are prohibited.

14. Amend Table 605.5, Pipe Fittings.

a.

**TABLE 605.5
PIPE FITTINGS**

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic	ASTM D 2468
Cast-iron	ASME B16.4; ASME B16.12
Chlorinated polyvinyl chloride (CPVC) plastic	ASSE 1061; ASTM D 2846; ASTM F 437; ASTM F 438; ASTM F 439; CSA B137.6
Copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22;
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Fittings for cross-linked polyethylene (PEX) plastic tubing	ASSE 1061, ASTM F 877; ASTM F 1807; ASTM F 1960; ASTM F 2080; ASTM F 2098, ASTM F

	2159; ASTM F 2434; ASTM F 2735; CSA B137.5
Fittings for polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 1807; ASTM F 2098; ASTM F 2159; ASTM F 2735
Gray iron and ductile iron	AWWA C110/A21.10; AWWA C153/A21.53
Insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX)	ASTM F 1974; ASTM F 1281; ASTM F 1282; CSA B137.9; CSA B137.10M
Malleable iron	ASME B16.3
Metal (brass) insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX)	ASTM F 1974
Polyethylene (PE) plastic pipe	ASTM D 2683; ASTM D 3261; ASTM F 1055; CSA B137.1
Polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
Polyvinyl chloride (PVC) plastic	ASTM D 2464; ASTM D 2466; ASTM D 2467; CSA B137.2; CSA B137.3
Stainless steel (Type 304/304L)	ASTM A 312; ASTM A 778
Stainless steel (Type 316/316L)	ASTM A 312; ASTM A 778
Steel	ASME B16.9; ASME B16.11; ASME B16.28

15. Amend Section 606.1, Location of full-open valves.

a. Full-open valves shall be installed in the following locations:

- (i.) On the building water service pipe from the public water supply near the curb.
- (ii.) On the water distribution supply pipe at the entrance into the structure.
- (iii.) On the discharge side of every water meter.
- (iv.) On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one- and two-family residential occupancies

(v.) On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.

(vi.) On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.

(vii.) On the water supply pipe to a gravity or pressurized water tank.

(viii.) On the water supply pipe to every water heater.

(ix.) On each water supply branch line 1 ½ inches or larger so as to isolate all fixtures and all pieces of equipment supplied by the branch line. The shutoff valve shall be installed in a labeled and accessible location as close to the connection to the supply main and/or riser as practical.

b. When such shutoff valve is located in the service pipe outside the building, it shall be located and accessible in a manufactured, approved, valve box with a readily removable access cover which extends to grade (G) level. When drain valves are provided for the distribution piping or other portions of the water distribution system, such drains shall be above grade(G) or otherwise located to prevent the possibility of backflow into the piping system after the system has been drained.

16. Amend Section 606.2, Location of shutoff valves.

a. Shutoff valves shall be installed in the following locations:

(i.) On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies. Such valves shall permit each fixture to be shutoff without interfering with the water supply to any other fixtures. In all buildings other than one- and two-family residential occupancies, shutoff valves shall be installed which permit the water supply to all fixtures and equipment in each separate room to be shut off without interference with the water supply to any other room or portion of the building or each individual fixture and piece of equipment shall have a shutoff valve which will permit each fixture and piece of equipment to be shut off without interfering with the water supply to other fixtures or equipment.

(ii.) On the water supply pipe to each sillcock.

(iii.) On the water supply pipe to each appliance or mechanical equipment.

17. Amend Section 606.5.5, Low-pressure cutoff required on booster pumps.

a. A low-pressure cutoff shall be installed on all booster pumps in a water pressure booster system to prevent creation of a vacuum or negative pressure on the suction side of the

pump when a positive pressure of 20 psi (137.9 kPa) or less occurs on the suction side of the pump.

18. Amend Section 607.3.2, Backflow prevention device or check valve.

a. Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment, a device for controlling pressure shall be installed at an accessible location between the checking device and the water heating equipment to limit thermal expansion of the water being heated to not more than 80 psi (552 kPa) static pressure at any fixture on the system. A potable water expansion tank or auxiliary relief valve set at 80 psi (552 kPa) shall be acceptable. The auxiliary relief valve shall be in addition to the water heater safety relief valve. This thermal expansion control device shall be designed and trimmed for repeated operation. The valve shall be a minimum 1/2-inch pipe size, shall be adjustable and calibrated, and shall include a tag describing its function.

19. Amend Section 608.1, General.

a. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventers shall conform to the applicable Standard referenced in Table 608.1. Backflow preventer applications shall conform to Table 608.1, except as specifically stated in Sections 608.2 through 608.16.27 and Sections 608.18 through 608.18.2.

20. Amend Section 608.4, Water service piping/Containment to protect potable water supplies.

a. Water service piping shall be protected in accordance with Sections 603.2. Containment to protect potable water supplies shall be achieved in accordance with 608.18 through 608.18.2.

21. Amend Section 608.6, Cross-connection control.

a. Cross connections shall be prohibited, except where approved backflow prevention devices, assemblies, or methods are installed to protect the potable water supply. A dual check valve type backflow preventer (i.e., device meeting ASSE 1024 or CSA B64.6 with two spring loaded, independently operating check valves without tightly closing shut-off valves or test cocks which is commonly installed immediately downstream of water meters by water suppliers) is not an approved backflow prevention device when a known cross connection exists downstream of the device. These devices are only allowed to be installed when no cross connections exist downstream of the device or when all downstream cross connections are properly protected by approved backflow prevention devices, assemblies, or methods.

22. Amend Section 608.8, Identification of nonpotable water.

a. Where nonpotable water systems are installed, the piping conveying the nonpotable water shall be identified either by color marking or metal tags in accordance with Sections 608.8.1 through 608.8.3. All nonpotable water outlets such as hose connections, open ended pipes, and faucets shall be identified at the point of use for each outlet with the words, “Nonpotable—not safe for drinking.” The words shall be indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and in colors in contrast to the background on which they are applied.

(i.) Exception:

(a.) Overall Exception to this Section (§608.8 of this code). Pursuant to R.S. 40:4.12, industrial-type facilities listed therein shall not be required to comply with this section (§608.8 of this code) provided that such facilities have a potable water distribution identification plan in conformity with the requirements of R.S. 40:4.12. The required formal cross-connection control survey of the facility referenced in R.S. 40:4.12 shall be performed by an individual holding a valid cross-connection control surveyor certificate issued under the requirements of ASSE 5120, or other individuals holding a surveyor certificate from a nationally recognized backflow certification organization approved by the state health officer

23. Amend Section 608.14, Location of backflow preventers.

a. Access shall be provided to backflow preventers as specified by the manufacturer’s instructions for the required testing, maintenance and repair. A minimum of 1-foot of clearance shall be provided between the lowest portion of the assembly and grade or platform. Elevated installations exceeding 5-feet above grade(g) shall be provided with a suitably located permanent platform capable of supporting the installer, tester, or repairer. Reduced pressure principal type backflow preventers, and other types of backflow preventers with atmospheric ports and/or test cocks (e.g., atmospheric type vacuum breakers, double check valve assemblies, pressure type vacuum breaker assemblies, etc.), shall not be installed below grade (in vaults or pits) where the potential for a relief valve, an atmospheric port, or a test cock being submerged exists.

24. Amend Section 608.14.2, Protection of backflow preventers.

a. Backflow preventers subjected to freezing temperatures shall protected from freezing by heat, insulation or both; or as otherwise recommended by the manufacturer.

25. Amend Section 608.15.4, Protection by a vacuum breaker.

a. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. The critical level of atmospheric type vacuum breakers shall be installed not less than 6 inches (152 mm) above all downstream piping and not less than 6 inches (152 mm) above the flood-level rim of the fixture receptor or device served. Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. Atmospheric vacuum breakers including, but not limited to, hose bibb vacuum breakers shall not be subjected to continuous water pressure. The critical level of pressure type vacuum breakers shall be installed not less than 12 inches (305 mm) above all downstream piping and not less than 12 inches (305 mm) above

the flood-level rim of the fixture receptor or device served. Fill valves shall be set in accordance with Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors.

26. Amend Section 608.15.4.2, Hose connections.

a. Sillcocks, hose bibbs, wall hydrants and other openings with a hose connection shall be protected against backflow by an atmospheric-type or pressure-type vacuum breaker installed in accordance with Section 608.15.4, or by a permanently attached hose connection vacuum breaker in which the highest point of usage is less than 10 feet above the hose connection vacuum breaker. Hose bib vacuum breakers shall not be subjected to continuous water pressure.

27. Amend Section 608.16, Connections to the potable water system.

a. Connections to the potable water system shall conform to Sections 608.16.1 through 608.16.27. These Sections (608.16.1 – 608.16.27) are not inclusive of all potential contamination sources which may need fixture isolation protection. For potential contamination sources not listed in Sections 608.16.1 through 608.16.27, backflow prevention methods or devices shall be utilized in accordance with Table B1 of CAN/CSA B64.10-1994. When a potential contamination source and its associated backflow prevention method or device is not identified in this code or Table B1 of CAN/CSA B64.10-1994, backflow prevention methods or devices shall be utilized as directed by the building official.

28. Amend Section 608.16.5, Connections to lawn irrigation systems.

a. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow prevention assembly. Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. When an irrigation/lawn sprinkler system is provided with separate zones, the potable water supply shall be protected by a pressure vacuum breaker or reduced pressure principle backflow prevention assembly. Atmospheric vacuum breakers shall be installed at least 6 inches (152 mm) above the highest point of usage (i.e., 6 inches (152 mm) above all downstream piping or highest sprinkler head). Pressure type vacuum breakers shall be installed at least 12 inches (305 mm) above the highest point of usage (i.e., 12 inches (305 mm) above all downstream piping and the highest sprinkler head). Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly.

29. Amend Section 608.16.8, Portable Cleaning Equipment.

a. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, 608.13.2, 608.13.3, 608.13.5, 608.13.6, or 608.13.8. The type of backflow preventer shall be selected based upon the application in accordance with Table 608.1.

30. Add Section 608.16.11, Cooling towers.

- a. The potable water supply to cooling towers shall be protected against backflow by an air gap.
- 31. Add Section 608.16.12, Chemical tanks.
 - a. The potable water supply to chemical tanks shall be protected against backflow by an air gap.
- 32. Add Section 608.16.13, Commercial Dishwashers in commercial establishments.
 - a. The potable water supply to commercial dishwashers in commercial establishments shall be protected against backflow by an air gap, atmospheric vacuum breaker, or pressure vacuum breaker. Vacuum breakers shall meet the requirements of Section 608.15.4.
- 33. Add Section 608.16.14, Ornamental Fountains.
 - a. The potable water supply to ornamental fountains shall be protected against backflow by an air gap.
- 34. Add Section 608.16.15, Swimming pools, spas, hot tubs.
 - a. The potable water supply to swimming pools, spas, or hot tubs shall be protected against backflow by an air gap or reduced pressure principle backflow prevention assembly.
- 35. Add Section 608.16.16, Baptismal fonts.
 - a. The potable water supply to baptismal fonts shall be protected against backflow by an air gap.
- 36. Add Section 608.16.17, Animal watering troughs.
 - a. The potable water supply to animal watering troughs shall be protected against backflow by an air gap.
- 37. Add Section 608.16.18, Agricultural chemical mixing tanks.
 - a. The potable water supply to agricultural chemical mixing tanks shall be protected against backflow by an air gap.
- 38. Add Section 608.16.19, Water hauling trucks.
 - a. The potable water supply to water hauling trucks/tankers shall be protected against backflow by an air gap when filled from above. When allowed to be filled from below, they shall be protected by a reduced pressure principle backflow prevention assembly. When a tanker truck is designated for the hauling of food grade products (and has been cleaned utilizing food grade

cleaning procedures) and is allowed to be filled from below, a double check valve assembly shall be acceptable.

39. Add Section 608.16.20, Air conditioning chilled water systems and/or condenser water systems.

a. The potable water supply to air conditioning chilled water systems and condenser water systems shall be protected against backflow by a reduced pressure principal backflow prevention assembly.

40. Add Section 608.16.21, Pot-type chemical feeders.

a. The potable water supply to pot-type chemical feeders shall be protected against backflow by a reduced pressure principal backflow prevention assembly.

41. Add Section 608.16.22, Food processing steam kettles.

a. The potable water supply to food processing steam kettles shall be protected against backflow by a double check valve backflow prevention assembly.

42. Add Section 608.16.23, Individual travel trailer pads.

a. The potable water supply to individual travel trailer pads shall be protected against backflow by a double check valve backflow prevention assembly.

43. Add Section 608.16.24, Laboratory and/or medical aspirators.

a. The potable water supply to laboratory and/or medical aspirators shall be protected against backflow by an atmospheric or pressure vacuum breaker installed in accordance with Sections 608.3.1 and 608.15.4.

44. Add Section 608.16.25, Laboratory or other sinks with threaded or serrated nozzles.

a. The potable water supply to laboratory sinks or other sinks with threaded or serrated nozzles shall be protected against backflow by an atmospheric or pressure vacuum breaker installed in accordance with Sections 608.3.1 and 608.15.4.

45. Add Section 608.16.26, Mortuary/embalming aspirators.

a. The potable water supply to mortuary/embalming aspirators shall be protected against backflow by a pressure vacuum breaker installed in the supply line serving the aspirator. The critical level of the vacuum breaker shall be installed a minimum of 12 inches higher than the aspirator. The aspirator shall be installed at least 6 inches above the highest level at which suction may be taken. An air gap shall be provided between the outlet of the discharge pipe and the overflow rim of the receiving fixture.

46. Add Section 608.16.27, Room(s) or other sub-unit(s) of a premise or facility receiving water where access is prohibited.

a. When access is prohibited to particular areas, rooms, or other sub-units of a premise or facility which is receiving water, the potable water supply serving those areas shall be protected against backflow by a reduced pressure principal backflow protection assembly.

47. Amend Section 608.17, Protection of individual water supplies.

a. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (WaterWells).

48. Remove and delete Sections 608.17.1 thru 608.17.8 including Table 608.17.1.

49. Add Section 608.18 18, Containment practices.

a. Backflow prevention methods or devices shall be utilized as directed by the water supplier or code official to isolate specific water supply system customers from the water supply system's mains when such action is deemed necessary to protect the water supply system against potential contamination caused by backflow of water from that part of the water system owned and maintained by the customer (for example, the piping downstream of the water meter, if provided). Minimum requirements shall be in accordance with Section 608.18.1 through 608.18.2.

50. Add Section 608.18.1, Containment requirements.

a. As a minimum, the following types of backflow prevention assemblies or methods shall be installed and maintained by water supply system customers immediately downstream of the water meter (if provided) or on the water service pipe prior to any branch line or connections serving the listed customer types and categories.

51. Add Table 608.18.1, Containment Requirements.

a.

TABLE 608.18.1 CONTAINMENT REQUIREMENTS

Air Gap
1. Fire Protection/Sprinkler System utilizing non-potable water as an alternative or primary source of water
Reduced Pressure Principle Backflow Prevention Assembly
1. Hospitals, Out-Patient Surgical Facilities, Renal Dialysis Facilities, Veterinary Clinics
2. Funeral Homes, Mortuaries
3. Car Wash Systems
4. Sewage Facilities

5. Chemical or Petroleum Processing Plants
6. Animal/Poultry Feedlots or Brooding Facilities
7. Meat Processing Plants
8. Metal Plating Plants
9. Food Processing Plants, Beverage Processing Plants
10. Fire Protection/Sprinkler Systems using antifreeze in such system (a detector type assembly is recommended on unmetere fire lines)
11. Irrigation/Lawn Sprinkler Systems with Fertilizer Injection
12. Marinas/Docks
13. Radiator Shops
14. Commercial Pesticide/Herbicide Application
15. Photo/X-ray/Film Processing Laboratories
16. Multiple Commercial Units served by a master meter
17. Any type of occupancy type or any other facility having one or more Single-walled Heat Exchangers which uses any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium
18. Any type of occupancy type or any other facility having one or more Double-walled Heat Exchangers which use any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium and which does not have a path to atmosphere with a readily visible discharge
19. Premises where access/entry is prohibited
Pressure Vacuum Breaker Assembly/ Spill Resistant Vacuum Breaker Assembly
1. Irrigation/Lawn Sprinkler Systems
Double Check Valve Assembly
1. Fire Protection/Sprinkler Systems (a detector type double check valve assembly is recommended on unmetere fire lines)
2. Two residential dwelling units served by a master meter, unless both units are located on a parcel or contiguous parcels of land having the same ownership and neither unit is used for commercial purposes. As used herein, the term "commercial purposes" means any use other than residential.
3. Three or more residential dwelling units served by a master meter
4. Multistoried Office/Commercial Buildings (over 3 floors)
5. Jails, Prisons, and Other Places of Detention or Incarceration

52. Add Section 608.18.2, Other containment requirements.

a. Table 608.18.1 of this code above is not inclusive of all potential contamination sources which may need containment protection. For potential contamination sources not listed

in this table, backflow prevention methods or devices shall be utilized in accordance with Table B1 of CAN/CSA B64.10-1994. When a potential contamination source and its associated backflow prevention method or device is not identified in Table 608.18.1 of this code above or Table B1 of CAN/CSA B64.10-1994, backflow prevention methods or devices shall be utilized:

- (i.) as directed by the building code official; or
- (ii.) as directed by the water supplier.
- (iii.) In cases of a discrepancy regarding the particular backflow prevention assembly or method required, the assembly or method providing the higher level of protection shall be required.

G. Amend Chapter 7, Sanitary Drainage.

1. Amend Section 701.2, Sewer required.

a. Buildings in which plumbing fixtures are installed and premises having sanitary drainage system piping shall be connected to a community sewerage system, where available, or an approved commercial treatment facility or individual sewerage meeting the requirements of LAC 51:XIII. (Sewage Disposal).

2. Amend Section 701.3, Separate Sewer Connection.

a. A building having plumbing fixtures installed and intended for human habitation, occupancy or use on premises abutting on a street, alley or easement in which there is community sewerage system shall have a separate connection with the sanitary sewer. Where located on the same lot, multiple buildings shall not be prohibited from connecting to a common sanitary building sewer that connects to the community sewerage system.

3. Amend Section 701.8, Engineered systems.

a. Engineered sanitary drainage systems shall conform to the provisions of Section 316 and 714. Single stack plumbing systems may be considered for approval by the code official for use on the upper floors of hotel and motel guest rooms but shall not be approved for condominium or apartment complexes.

4. Amend Section 701.9, Drainage piping in food service areas.

a. Exposed soil or waste piping, including vacuum drainage systems, shall not be installed above any food preparation areas, food or utensil storage areas or eating surfaces in food service establishments unless they are adequately shielded to intercept potential drips.

5. Add Section 701.10, Repairs to drainage system via re-route.

a. In the case where it is determined that there is a broken underground drain line including, but not limited to, broken drain lines under the slab of a building, and a drain line re-route is performed, the existing broken underground drain line shall be cut or otherwise disconnected from the entire drainage system. At the point of such cutting or disconnection, the entire circumference of the existing pipe which remains connected to the drainage system shall have a wall thickness of not less than 1/8-inch. The existing pipe which remains connected to the drainage system shall be sealed watertight and gastight using approved plumbing materials and joining/jointing methods, e.g., properly install an approved cap, plug, or cleanout on the cut or disconnected pipe.

6. Amend Section 702.5, Chemical waste system.

a. A chemical waste system shall be completely separated from the sanitary drainage system. The chemical waste shall be treated in accordance with Section 803.2 before discharging to the sanitary drainage system. Separate drainage systems for chemical wastes and vent pipes shall be constructed of one of the materials listed in Table 702.5 or other materials approved by the plumbing official. The material selected shall be resistant to corrosion and degradation for the concentrations of chemicals involved. Joints shall be made in conformance with the manufacturer's recommendations.

(i.)

TABLE 702.5
CHEMICAL WASTE SYSTEM

Material	Standard
High silicon cast iron	ASTM A 518/A 518M
Borosilicate glass	ASTM C 1053
Chlorinated poly [vinyl chloride] (CPVC)	ASTM F 2618
Polyolefin	ASTM F 1412
Polyvinylidene fluoride (PVDF)	ASTM F 1673

7. Add Section 703.6, Minimum Size Building Sewer.

a. No building sewer shall be less than 4 inches in size with the exception of force lines.

8. Delete Section 706.4, Heel- or side-inlet quarter bends.

9. Amend Section 708.3, Where Required.

a. Cleanouts shall be located in accordance with Sections 708.3.1 through 708.3.6.

10. Amend Section 708.3.1, Horizontal drains within buildings.

a. All horizontal drains shall be provided with cleanouts located not more than 100 feet (30 480 mm) apart. Horizontal drains within buildings shall be provided with cleanouts as follows:

(i) All horizontal drains 3-inch nominal diameter or less, cleanouts shall be located at not more than 50 feet (15 200mm) intervals.

(ii.) For horizontal drains 4-inch nominal diameter through 6-inch nominal diameter, cleanouts shall be located at not more than 80 feet (24 400mm) intervals.

(iii.) Horizontal drains larger than 6-inch nominal diameter shall be provided with cleanouts located at not more than 100 feet (30 480 mm) intervals

11. Amend Section 708.3.2, Building sewers.

a. Building sewers 4-inch nominal diameter through 6-inch nominal diameter shall be provided with cleanouts located not more than 80 feet (24 400mm) apart measured from the upstream entrance of the cleanout. For building sewers 8 inches (203 mm) and larger, manholes shall be provided and located not more than 200 feet (60 960 mm) from the junction of the building drain and building sewer, at each change in direction and at intervals of not more than 400 feet (122 m) apart. Manholes and manhole covers shall be of an approved type.

12. Amend Section 708.3.3, Changes of direction.

a. Each horizontal drainage pipe shall be provided with a cleanout at the upstream end of the pipe and in changes of direction over 45° (0.785 rad).

(i.) Exceptions:

(a.) The following plumbing arrangements are acceptable in lieu of the upstream cleanout:

(i.) "P" traps connected to the drainage piping with slip joints or ground joint connections;

(ii.) "P" traps into which floor drains, shower drains or tub drains with removable strainers discharge;

(iii.) "P" traps into which the straight through type waste and overflow discharge with the overflow connecting to the branch of the tee;

(iv.) "P" traps into which residential washing machines discharge; v. test tees or cleanouts in a vertical pipe above the flood-level rim of the fixtures that the horizontal pipe serves and not more than 4-feet (1219 mm) above the finish floor.

13. Amend Section 708.3.5, Building drain and building sewer junction.

a. There shall be a cleanout within 6 feet (1829 mm) of the junction of the building drain and the building sewer. The cleanout shall be either inside or outside the building wall and shall be brought up to the finished ground level or to the basement floor level. An approved two-way cleanout is allowed to be used at this location to serve as a required cleanout for both the building drain and building sewer. The minimum size of the cleanout at the junction of the building drain and building sewer shall comply with Section 708.7.

14. Amend Section 710.1, Maximum fixture unit load.

a. The maximum number of drainage fixture units connected to a given size of building sewer, building drain or horizontal branch of the building drain shall be determined using Table 710.1(1). The maximum number of drainage fixture units connected to a given size vertical soil or waste stack, or horizontal branch connecting to a vertical soil or waste stack, shall be determined using Table 710.1(2).

15. Amend Table 710.1(1).

a.

**TABLE 710.1(1)
BUILDING DRAINS AND SEWERS**

DIAMETER OF PIPE (inches)	Slope per foot					MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN ^a
	1 / 16 inch	1 / 8 inch	1 / 4 inch	1 / 2 inch	3 / 4 inch	
1 / 4			1	1	1	1
1 / 2			3	3	3	3
2				21	26	26
2 1 / 2				24	31	31
3		20 (not over two	27 (not over	36		36

		water closets)	two water closets)	(not over two water closets)
4	—	180	216	250
5	—	390	480	575
6	—	700	840	1,000
8	1,400	1,600	1,920	2,300
10	2,500	2,900	3,500	4,200
12	3,900	4,600	5,600	6,700
15	7,000	8,300	10,000	12,000

For SI: 1 inch = 25.4 mm, 1 inch per foot = 83.3 mm/m.

a. The minimum size of any building drain serving a water closet shall be 3 inches.

16. Amend Table 710.1(2).

a.

TABLE 710.1(2)
HORIZONTAL FIXTURE BRANCHES AND STACKS^a

DIAMETER OF PIPE (inches) (The minimum size of any branch or stack serving a water closet shall be 3".)	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS (dfu)		
	Total for horizontal branch (Does not include branches of the building drain. Use 50 percent less dfu's for any circuit or battery vented fixture branches, no size reduction permitted for	Stacks ^b	
		Total discharge into one branch interval when greater than three branch intervals	Total for stack when three branch intervals or less Total for stack when greater than three branch intervals

	circuit or battery vented branches throughout the entire branch length.)			
$1\frac{1}{2}$	3	2	4	8
2	6	6	10	24
$2\frac{1}{2}$	12	9	20	42
3	20 (not over two water closets)	16 (not over two water closets)	30 (not over six water closets)	60 (not over six water closets)
4	160	90	240	500
5	360	200	540	1,100
6	620	350	960	1,900
8	1,400	600	2,200	3,600
10	2,500	1,000	3,800	5,600
12	3,900	1,500	6,000	8,400
15	7,000	Note c	Note c	Note c

For SI: 1 inch = 25.4 mm.

- a. Does not include branches of the building drain. Refer to Table 710.1(1).
- b. Stacks shall be sized based on the total accumulated connected load at each story or branch interval. As the total accumulated connected load decreases, stacks are permitted to be reduced in size. Stack diameters shall not be reduced to less than one-half of the diameter of the largest stack size required.
- c. Sizing load based on design criteria.

17. Add Section 710.1.3, Minimum size of soil and waste stacks.

a. No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 water closet connection shall not be considered as a reduction in pipe size. The soil or waste stack shall run undiminished in size from its connection to the building drain to its connection to the stack vent.

18. Add Section 710.1.4, Minimum size of drain serving a water closet.

a. The minimum size of any building drain serving a water closet shall be 3 inches. Not more than two water closets shall discharge into a 3-inch horizontal building drain. Not more than six water closets shall discharge into a 3-inch vertical building drain.

19. Add Section 710.3, Underground Drainage Piping.

a. Any portion of the drainage system installed underground or below a basement or cellar shall not be less than 2-inch diameter. In addition, any portion of the drainage system installed underground which is located upstream from a grease trap or grease interceptor as well as the underground horizontal branch receiving the discharge there from shall not be less than 3-inch diameter.

20. Amend Section 713.9, Local vents and stacks for bedpan washers.

a. Bedpan washers shall be vented to open air above the roof by means of one or more local vents. The vent terminal and location of the local vent shall be the same as required for sanitary sewer vents. The local vent for a bedpan washer shall not be less than a 2-inch-diameter (51 mm) pipe. A local vent serving a single bedpan washer is permitted to drain to the fixture served.

H. Chapter 8 Indirect/Special Waste.

1. Amend Section 802.1.1, Food handling.

a. Equipment and fixtures utilized for the storage, preparation and handling of food shall discharge through an indirect waste pipe by means of an air gap. Food handling equipment includes but is not limited to the following: any sink where food is cleaned, peeled, cut up, rinsed, battered, defrosted or otherwise prepared or handled; potato peelers; ice cream dipper wells; refrigerators; freezers; walk-in coolers or freezers; ice boxes; ice making machines; fountain type drink dispensers; rinse sinks; cooling or refrigerating coils; laundry washers; extractors; steam tables; steam kettles; egg boilers; coffee urns; steam jackets or other food handling or cooking equipment wherein the indirect waste pipe may come under a vacuum; or similar equipment.

2. Amend Section 802.2, Installation.

a. Indirect waste piping shall discharge through an air gap or air break into a waste receptor. Waste receptors and standpipes shall be trapped and vented and shall connect to the building drainage system. All indirect waste piping that exceeds 30 inches (762 mm) in developed length measured horizontally, or 54 inches (1372 mm) in total developed length, shall be trapped. The maximum length of indirect waste piping to the waste receptor shall not exceed 15 feet (4527 mm). Should an indirect waste pipe exceed 15 feet in length, a local vent shall be provided at a maximum of every 15 feet (4527 mm) in length. Indirect waste piping shall be installed as to permit ready access for flushing and cleaning.

3. Amend Section 802.2.2, Air break.

a. An air break shall be provided between the indirect waste pipe and the trap seal of the waste receptor or standpipe. The air break (drainage system) between the indirect waste and the building drainage system shall be installed such that the level of the lowest outlet located on the fixture, device, appliance or apparatus (to which the indirect waste pipe connects) is above the flood-level rim of the receiving sink or other receptor by a vertical distance of at least twice the diameter of the effective opening of the indirect waste pipe, but in no case less than 2 inches (51 mm). In addition, the indirect waste pipe shall terminate below the flood-level rim of the receiving sink or other receptor a distance equal to not more than one-half (1/2) the diameter of the effective opening of the indirect waste pipe.

I. Delete Section 918, Air Admittance Valves in its entirety and all referring sections of the 2012 IPC.

J. Amend Chapter 10: Traps, Interceptors and Separators.

1. Amend Section 1002.1, Fixture Traps.

a. Each plumbing fixture shall be separately trapped by a liquid-seal trap, except as otherwise permitted by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 mm), and the horizontal distance shall not exceed 30 inches (610 mm) measured from the centerline of the fixture outlet to the centerline of the inlet of the trap. The height of a clothes washer standpipe above a trap shall conform to Section 802.4. A fixture shall not be double trapped.

(i.) Exceptions:

(a.) 1. This section shall not apply to fixtures with integral traps.

(b.) 2. A combination plumbing fixture is permitted to be installed on one trap, provided that one compartment is not more than 6 inches (152 mm) deeper than the other compartment and the waste outlets are not more than 30 inches (762 mm) apart.

(c.) 3. A grease interceptor intended to serve as a fixture trap in accordance with the manufacturer's installation instructions shall be permitted to serve as the trap for a single fixture or a combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm) and the developed length of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm).

(d.) 4. One trap may be installed for a set of not more than three single-compartment sinks or laundry trays or three lavatories immediately adjacent to each other in the same room, if the waste outlets are not more than 30 inches (762 mm) apart and the trap is centrally located when three compartments are installed.

2. Amend Section 1002, Prohibited traps.

a. The following types of traps are prohibited:

- (i.) 1. Traps that depend on moving parts to maintain the seal.
- (ii.) 2. Bell traps.
- (iii.) 3. Crown-vented traps.
- (iv.) 4. Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an approved material that is resistant to corrosion and degradation.
- (v.) 5. "S" traps.
- (vi.) 6. Drum traps.
- (a.) Exception:
 - (i.) Drum traps used as solids interceptors and drum traps serving chemical waste systems shall not be prohibited.
 - (vii.) Running traps.
 - (a.) Exceptions:

(i.) A running trap with cleanout may be allowed on condensate waste lines and for certain floor level fixtures installed on a combination waste and vent system.

3. Amend Section 1003.2, Approval.

a. Interceptors and of each separators shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator. No interceptor or separator shall be installed until its design, size, location and venting has been approved by the local jurisdictional code official. The local jurisdictional code official shall have the authority to require a grease interceptor to be serviced, repaired, or replaced with a larger unit when it is determined that a unit is not working or being maintained properly, the unit is damaged, or the mode of operation of the facility no longer meets the anticipated conditions of use (i.e., offensive odors, sewage backups or overflows, or when it is determined that grease is bypassing the grease interceptor and causing downstream blockages or interfering with sewage treatment.

4. Amend Section 1003.3, Grease interceptors.

a. Grease interceptors shall comply with the requirements of Sections 1003.3.1 through 1003.3.5.

5. Amend Section 1003.3.1, Grease interceptors and automatic grease removal devices required.

a. A grease interceptor or automatic grease removal device, sized in accordance with Section 1003.3.5 of this code, shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, prerinse sinks; soup kettles or similar devices; work stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Other than standard detergents associated with dishwashing; emulsifiers, chemicals, enzymes or bacteria shall not discharge into a grease interceptor or automatic grease removal device. A grease interceptor or an automatic grease removal device shall not be required for individual detached one- and two-family dwelling units or any private living quarters.

6. Amend Section 1003.3.2, Hydromechanical grease interceptors.

a. Hydromechanical grease interceptors shall be evaluated, tested, and certified for conformance with ASME A 112.14.3, PDI-G101, or PDI-G102. Hydromechanical grease interceptors shall be equipped with devices to control the rate of water flow so that the water flow does not exceed the rated flow. The flow-control device shall be vented and terminate not less than 6 inches (152 mm) above the flood rim level or be installed in accordance with the manufacturer's instructions. To prevent odors in the kitchen or occupied space, such vent shall be directly connected to the building vent system. Hydromechanical grease interceptors shall be sized in accordance with Section 1003.3.5 of this code.

7. Amend Section 1003.3.3, Automatic grease removal devices.

a. Automatic grease removal devices shall be evaluated, tested, and certified for conformance with ASME A112.14.4. Where automatic grease removal devices are installed, such devices shall be located downstream of each fixture or multiple fixtures in accordance with the manufacturer's instructions. Ready access shall be provided for inspection and maintenance. Automatic grease removal devices shall be sized in accordance with Section 1003.3.5 of this code.

8. Amend Section 1003.3.4, Gravity grease interceptors.

a. Gravity grease interceptors shall comply with the requirements of Sections 1003.3.4.1 through 1003.3.4.8 and shall be sized in accordance with Section 1003.3.5 of this code.

9. Amend 1003.3.4.1, Indoor installations.

If a gravity grease interceptor must be installed within an enclosed building, any access covers shall be gasketed to prevent the intrusion of odors into the building.

10. Amend Section 1003.3.4.2, Distance.

- a. The grease interceptor shall be placed as close to the plumbing fixture(s) discharging greasy waste as possible, but preferably on the outside of the building when feasible.

11. Add Section 1003.3.4.3, Outlet pipe.

- a. The minimum diameter of the outlet pipe shall not be less than 4 inches. The invert of the gravity grease interceptor outlet opening (i.e., lowest portion of the outlet pipe where it draws waste near the bottom of the grease interceptor), shall be located at a maximum of 6 inches and a minimum of 4 inches from the floor of the grease interceptor. This requirement also applies to any intermediate outlets in multi-compartment gravity grease interceptors.

12. Add Section 1003.3.4.4, Air space.

- a. A minimum of one foot of air space shall be provided above the static water level.

13. Add Section 1003.3.4.5, Venting.

- a. A gravity grease interceptor outlet shall be properly vented in accordance with this section to prevent it from siphoning itself out. Any internally vented outlet line shall have the vent terminal extended to within 2 inches of the bottom of the access cover to prevent grease from escaping the gravity grease interceptor through the open vent terminal. For those gravity grease interceptors having a gasketed cover, the gravity grease interceptor outlet line shall not be allowed to be internally vented. In this case, the outlet line itself shall be vented with a minimum 2-inch vent pipe installed in accordance with Chapter 9 of this code.

14. Add Section 1003.3.4.6, Water seal.

- a. On unbaffled single compartment gravity grease interceptors, a 90° ell shall be used on the inlet and shall terminate 6 inches below the static water level. On baffled single compartment gravity grease interceptors, a baffle wall shall be placed between the inlet and outlet. The inlet shall discharge into the gravity grease interceptor at a level at least 6 inches below the top of the baffle wall.

15. Add Section 1003.3.4.7, Minimum horizontal distance.

- a. The minimum horizontal distance between the inlet and outlet piping in the gravity grease interceptor shall be 24 inches.

16. Add Section 1003.3.4.8, Access/Covers.

- a. Access from the top of the gravity grease interceptor shall be provided by an easily removable cover above an access opening for proper maintenance. Additional access opening/covers shall be provided as necessary to provide accessibility to each compartment in

multi-compartment or multi-baffled arrangements as well as access to both the inlet and outlet. Access opening covers shall be above or at grade (G) to provide ready accessibility. Each access cover shall be designed so that it cannot slide, rotate, or flip when properly installed in order that the opening is not unintentionally exposed. Especially for lightweight covers, mechanical fasteners are recommended to augment the safety of and ensure positive closure of the cover.

17. Amend Section 1003.3.5, Minimum required liquid holding capacity.

a. In all instances of new construction, change of occupancy classification or use of the property, a gravity grease interceptor or hydro-mechanical grease interceptor meeting the minimum capacity as required by this Section of the Code shall be installed. The minimum required capacity (volume) of the grease interceptor shall be determined based upon the maximum number of persons served during the largest meal period in accordance Section 1003.3.5.1 or 1003.3.5.2 of this code.

18. Add Section 1003.3.5.1, Without garbage grinder.

a. The minimum capacity for applications without a garbage grinder shall not be less than 125 gallons below the static water level. This capacity is sufficient to hold the flow from one meal long enough to accomplish proper grease separation when serving up to 50 people during a single meal period. When over 50 people are served during a single meal period, the minimum capacity shall be increased beyond 125 gallons based upon at least an additional 2 1/2 gallons per person beginning with the 51st person served and greater.

19. Add Section 1003.3.5.2, With garbage grinder.

a. When a garbage grinder is connected, the minimum capacity shall not be less than 500 gallons below the static water level. This capacity is sufficient to hold the flow from one meal long enough to accomplish proper grease separation when serving up to 50 people during a single meal period. When a garbage grinder is connected and over 50 people are served during a single meal period, the minimum capacity shall be increased beyond 500 gallons based upon at least an additional 2 1/2 gallons per person beginning with the 51st person served and greater.

(i.) Exception:

(a.) At the discretion of the code official local jurisdictional code official, a smaller, point of use type hydro-mechanical grease interceptor or automatic grease removal device may be permissible when:

(i.) a concrete slab would have to be broken at an existing building or facility for the proper installation of a grease interceptor; or,

(ii.) an outside, unpaved area surrounding an existing building where a grease interceptor could be installed is available; however, it is determined that the area is located further than 75 feet from the plumbing fixtures that the grease interceptor would be servicing; or,

- (iii.) the code official local jurisdictional code official determines that the installation is unfeasible such as when servicing a kitchen located on the upper floors of a multistoried building; or,
- (iv.) the code official local jurisdictional code official determines that minimal fat, oil and grease will be produced or introduced into the sanitary drainage system based on the menu and mode of operation of the facility (i.e., snowball stands, sandwich shops, or other similar facilities with low grease production and which utilize single-service tableware and hollowware including forks, knives, spoons, plates, bowls, cups, and other serving dishes).
- (b.) In these instances, listed under the exception, the minimum required size of the hydromechanical grease interceptor shall be determined based upon fixture discharge rate (gpm) and grease retention capacity (pounds) in accordance with PDI G101 or ASME A 112.14.3. Automatic grease removal devices shall be sized in accordance with ASME A112.14.4. In no case shall a grease interceptor or automatic grease removal device be installed which has an approved rate of flow of less than 20 gallons per minute.

20. Amend Section 1003.10, Access and maintenance of interceptors and separators.

- a. Access shall be provided to each interceptor and separator for service and maintenance. A two-way cleanout shall be provided on the discharge waste line immediately downstream of all interceptors and separators. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator.

K. Amend Chapter 11, Storm Drainage.

1. Amend Section 1101.2, Where required.

- a. All roofs, paved areas, yards, courts and courtyards shall drain into a separate storm sewer system or to an approved place of disposal. For one- and two-family dwellings, and where approved, storm water is permitted to discharge onto flat areas, such as streets or lawns, provided that the storm water flows away from the building.

2. Amend Section 1101.3, Prohibited drainage.

- a. Storm water shall not be drained into sewers intended for sewage only.

(i.) Exception:

- (a.) Liquid waste from the cleaning operation and from the leakage of garbage containers and dumpsters holding putrescible wastes shall be disposed of as sewage. Methods used for this disposal shall prevent rainwater and runoff from adjacent areas from entering the sanitary sewerage system (i.e., dumpster pads may be elevated or curbed, enclosed or covered). When determined by the code official that liquid wastes or putrescible wastes contain fats, oils or

grease (or, for new establishments, will likely contain fats, oils, or grease in the future), an approved grease interceptor shall be installed in the waste line in accordance with Section 1003 of this code.

3. Amend Section 1102.2 1102.2, Inside storm drainage conductors.
 - a. Inside storm drainage conductors installed above ground shall conform to one of the standards listed in Table 702.1. Plastic piping shall be schedule 40.
4. Amend Section 1102.3, Underground building storm drain pipe.
 - a. Underground building storm drain pipe shall conform to one of the standards listed in Table 702.2. Plastic piping shall be schedule 40.
5. Delete Section 1103.1.
6. Delete Section 1103.2.
7. Delete Section 1103.3.
8. Delete Section 1103.4.
9. Amend Section 1104.2, Combining storm with sanitary drainage prohibited.
 - a. The sanitary and storm drainage systems of a structure shall be entirely separate.
10. Amend Section 1106.2 , Vertical conductors and leaders.
 - a. Vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with Table 1106.2(1) and Table 1106.2(2). If a vertical offset is 45 degrees or less, the leader can be sized as a vertical pipe. If the offset is greater than 45 degrees, the pipe must be sized as a horizontal pipe.
11. Delete Section 1109.1.
12. Amend Section 1113.1, Building subdrains.
 - a. Building subdrains located below the public storm sewer level shall discharge into a sump or receiving tank, the contents of which shall be automatically lifted and discharged into the gravity storm drainage system as required for building sumps. The sump and pumping equipment shall comply with Section 1114.1.
- L. Amend Chapter 13, Gray Water Recycling Systems.
 1. Amend Section 1301.1, Scope.

a. Gray water recycling systems shall only be considered on an individual basis and plans and specifications for any proposed gray water recycling system shall be submitted to the local jurisdictional code official for review and approval prior to construction. Such plans and specifications shall be appropriately sealed and signed by a Louisiana Registered Professional Engineer. Potable makeup water supply lines shall be protected against backflow by an air gap or reduced pressure principal backflow prevention assembly. The provisions of Chapter 13 shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals and for subsurface landscape irrigation. See Figures 1301.1(1) and 1301.1(2).

M. Amend Chapter 14, Referenced Standards.

1. Amend CSA Referenced Standard.

a. B64.10.1-07 Maintenance and Field testing of Backflow Prevention devices
Section 312.10.2

b. B64.10-94 Manual for the Selection, Installation, Maintenance and Field testing
of Backflow Prevention Devices (not including Part 6 (Maintenance and Field Testing)
Section 608.16 and Section 618.2

N. Add and reserve Chapter 15 for future use.

O. Add Chapter 16: Travel Trailer and Mobile/Manufactured Home Parks.

1. Add the following definitions:

Dependent Travel Trailer—a travel trailer not equipped with a water closet.

Drain Hose—the approved type hose, flexible and easily detachable, used for connecting the drain outlet on a travel trailer to a sewer inlet connection.

Drain Outlet—the lowest end of the main drain of a travel trailer itself to which a drain hose is connected.

Independent Travel Trailer—a travel trailer equipped with a water closet and a bath or shower.

Inlet Coupling—the terminal end of the branch water line to which the mobile/manufactured home or travel trailer's water service connection is made. It may be a swivel fitting or threaded pipe end.

Intermediate Waste Holding Tank—(travel trailers only) an enclosed tank for the temporary retention of water-borne waste.

Mobile/Manufactured Home—a prefabricated home built on a permanent chassis which can be transported in one or more sections and is typically used as a permanent dwelling. Manufactured

homes built since 1976 are built to the Manufactured Home Construction and Safety Standards (HUD Code) and display a HUD certification label on the exterior of each transportable section.

Park or Mobile/Manufactured Home Park or Travel Trailer Park—any lot, tract, parcel or plot of land upon which more than one travel trailer and/or mobile/manufactured homes parked for the temporary or permanent use of a person or persons for living, working or congregating.

Park Drainage System—the entire system of drainage piping within the park which is used to convey sewage or other wastes from the mobile/manufactured home or travel trailer drain outlet connection, beginning at its sewer inlet connection at the mobile/manufactured home or travel trailer site, to a community sewerage system, a commercial treatment facility, or an individual sewerage system.

Park Water Distribution System—all of the water distribution piping within the park, extending from the water supply system or other source of supply to, but not including, the mobile/manufactured home or travel trailer's water service connection, and including branch service lines, fixture devices, service buildings and appurtenances thereto.

Service Building—a building housing toilet and bathing facilities for men and women, with laundry facilities.

Sewer Inlet—a sewer pipe connection permanently provided at the travel trailer or mobile/manufactured home site which is designed to receive sewage when a travel trailer or a mobile/manufactured home is parked on such site. It is considered the upstream terminus of the park drainage system.

Travel Trailer—a vehicular unit, mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use.

Travel Trailer Sanitary Service Station—a sewage inlet with cover, surrounded by a concrete apron sloped inward to the drain, and watering facilities to permit periodic washdown of the immediately adjacent area, to be used as a disposal point for the contents of intermediate waste holding tanks of travel trailers.

Water Service Connection—as used in conjunction with mobile/manufactured homes and travel trailers, the water pipe connected between the inlet coupling of the park water distribution system and the water supply fitting provided on the mobile/manufactured home or travel trailer itself.

2. Add Section 1601, General.

a. Add Section 1601.1, Scope.

(i.) The requirements set forth in this Chapter shall apply specifically to all new travel trailer and mobile/manufactured home parks, and to additions to existing parks as herein defined, and are to provide minimum standards for sanitation and plumbing installation within these

parks, for the accommodations, use and parking of travel trailers and/or mobile/manufactured homes.

b. Add Section 1601.2, Governing Provisions.

(i.) Other general provisions of this code shall govern the installation of plumbing systems in travel trailer and mobile/manufactured home parks, except where special conditions or construction are specifically defined in this Chapter.

c. Add Section 1601.3, Sewage collection, disposal, treatment.

(i.) Travel trailers or mobile/manufactured homes shall not hereafter be parked in any park unless there are provided plumbing and sanitation facilities installed and maintained in conformity with this code. Every travel trailer and mobile/manufactured home shall provide a gastight and watertight connection for sewage disposal which shall be connected to an underground sewage collection system discharging into a community sewerage system, a commercial treatment facility, or an individual sewerage system which has been approved by the state health officer.

d. Add Section 1601.4, Travel trailer sanitary service station.

(i.) At least one travel trailer sanitary service station shall be provided in all travel trailer parks that accept any travel trailers having an intermediate waste holding tank. The water supply serving the sanitary service station shall be protected against backflow by a reduced pressure principle backflow prevention assembly meeting the requirements of Section 608 of this code.

e. Add Section 1601.5, Materials.

(i.) Unless otherwise provided for in this Chapter, all piping fixtures or devices used in the installation of drainage and water distribution systems for travel trailer parks and mobile/manufactured home parks shall conform to the quality and weights of materials prescribed by this code.

f. Add Section 1601.6, Installation.

(i.) Unless otherwise provided for in this Chapter, all plumbing fixtures, piping drains, appurtenances and appliances designed and used in the park drainage, water distribution system, and service connections shall be installed in conformance with the requirements of this code.

g. Add Section 1601.7, Maintenance.

(i.) All devices or safeguards required by this Chapter shall be maintained in good working order by the owner, operator, or lessee of the travel trailer park or his designated agent.

3. Add Section 1602, Service Buildings.

a. Add Section 1602.1, Service buildings for independent travel trailers.

(i.) Each travel trailer park which serves only independent travel trailers shall have at least one service building to provide necessary sanitation and laundry facilities. Each mobile/manufactured home park which also serves one or more independent travel trailers (in addition to mobile/manufactured homes) shall have at least one service building to provide necessary sanitation and laundry facilities. When a service building is required under this section, it shall have a minimum of one water closet, one lavatory, one shower or bathtub for females and one water closet, one lavatory, and one shower or bathtub for males. In addition, at least one laundry tray or clothes washing machine and one drinking fountain located in a common area shall be provided.

(a.) Exception:

(i.) temporary (6 months) travel trailers residing in mobile home parks and or where more than one travel trailer resides for the purpose of employment and or hardships, may be exempted by the local jurisdiction building official from 1302.1.

b. Add Section 1602.2, Service building for dependent travel trailers.

(i.) The service building(s) in travel trailer or mobile/manufactured home parks that also accommodate dependent travel trailers shall have a minimum of two water closets, one lavatory, one shower or bathtub for females, and one water closet, one lavatory, one urinal, and one shower or bathtub for males. In addition, at least one laundry tray or clothes washing machine and one drinking fountain located in a common area shall be provided. The above facilities are for a maximum of ten dependent travel trailers. For every ten additional dependent travel trailers (or any fraction thereof) the following additional fixtures shall be provided: One laundry tray or clothes washing machine, one shower or bathtub for each sex, and one water closet for females. Also, one additional water closet for males shall be provided for every 15 additional dependent travel trailers (or any fraction thereof).

c. Add Section 1602.3, Service building design requirements.

(i.) Each service building shall conform to Sections 1302.3.1 through 1302.3.3 of this code.

d. Add Section 1302.3.1, Construction.

(i.) Every service building shall be of permanent construction with an interior finish of moisture resistant material which will stand frequent washing and cleaning and the building shall be well-lighted and ventilated at all times.

e. Add Section 1602.3.2, Fixture separation.

(i.) The laundry tray(s) and/or clothes washing machine(s) and drinking fountain(s) shall be located in a common area. None of these fixtures shall be located within any toilet room. Each water closet, tub and/or shower shall be in separate compartments with self-closing doors

on all water closet compartments. The shower stall shall be a minimum of 3 x 3 ft (914 x 914 mm) in area, with a dressing compartment.

f. Add Section 1602.3.3, Floor drains.

(i.) A minimum 2-inch floor drain protected by and approved trap primer shall be installed in each toilet room and laundry room.

4. Add Section 1603, Park Drainage System.

a. Add Section 1603.1, Separation of water and sewer lines.

(i.) The sewer main and sewer laterals shall be separated from the park water service and distribution system in accordance with Section 603.2 of this code.

b. Add Section 1603.2, Minimum size pipe.

(i.) The minimum size pipe in any mobile/manufactured home park or travel trailer park drainage system shall be 4 inches. This includes branch lines or sewer laterals to individual travel trailers and mobile/manufactured homes.

c. Add Section 1603.3, Fixture units.

(i.) Each mobile/manufactured home and travel trailer shall be considered as 6 fixture units in determining discharge requirements in the design of park drainage and sewage disposal systems.

d. Add Section 1603.4, Sewage disposal/treatment.

(i.) The discharge of a park drainage system shall be connected to a community sewerage system. Where a community sewerage system is not available, an approved commercial treatment facility or individual sewerage system shall be installed in accord with the requirements of LAC 51:XIII (Sewage Disposal).

e. Add Section 1603.5, Manholes and cleanouts.

Manholes and/or cleanouts shall be provided and constructed as required in Chapter 7 of this code. Manholes and/or cleanouts shall be accessible and brought to grade.

f. Add Section 1603.6, Sewer inlets.

(i.) Sewer inlets shall be 4-inch diameter and extend above grade (G) 3 to 6 inches (76 to 152 mm). Each inlet shall be provided with a gas-tight seal when connected to a travel trailer or mobile/manufactured home and have a gas-tight seal plug for use when not in service.

g. Add Section 1603.7, Drain connections.

(i.) Drain connections shall slope continuously downward and form no traps. All pipe joints and connections shall be installed and maintained gastight and watertight.

h. Add Section 1603.8, Waste.

(i.) No sewage, waste water, or any other effluent shall be allowed to be deposited on the surface of the ground.

i. Add Section 1603.9, Testing the park drainage system.

(i.) Upon completion and before covering, the park drainage system shall be subjected to a static water test performed in accordance with Section 312 of this code.

5. Add Section 1604, Water Supply and Distribution System.

a. Add Section 1604.1, General.

(i.) Every mobile/manufactured home and travel trailer site shall be provided with an individual branch water service line delivering potable water.

b. Add Section 1604.2, Water service lines.

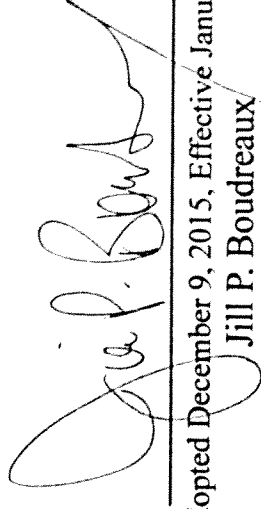
(i.) Water service lines to each travel trailer site shall be sized to provide a minimum of 8 gpm (0.505 L/s) at the point of connection with the trailer's water distribution system. Water service lines to each mobile/manufactured home site shall be sized to provide a minimum of 17 gpm (1.1 L/s) at the point of connection with the mobile/manufactured home's water distribution system. All water service lines shall be a minimum of ¾ inch. A separate service shutoff valve shall be installed on each water service line. In instances where a backflow prevention device or assembly is installed on the water service line (see Section 608.16.23), the shutoff valve shall be located on the supply side of the device or assembly.

c. Add Section 1604.3, Water Service Connections.

(i.) The water service connection from the water service line to the mobile/manufactured home or travel trailer site shall be not less than 1/2-inch diameter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 40:1730.22(C) and (D) and 40:1730.26(1) and Act 836 of the 2014 of the Regular Louisiana Legislative Session.

HISTORICAL NOTE: Promulgated by the Department of Public Safety and Corrections, State Uniform Construction Code Council, LR 41:



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Jill P. Boudreaux

Undersecretary