REVISED

ANALYSIS

This ordinance repeals those provisions of Title 28 – Plumbing Code – of the Los Angeles County Code, that had incorporated by reference portions of the 2016 Edition of the California Plumbing Code and replaces them with provisions incorporating by reference portions of the 2019 California Plumbing Code, published by the California Building Standards Commission, with certain changes and modifications. Unless deleted or modified herein, the previously enacted provisions of Title 28 continue in effect.

State law requires that the County's Plumbing Code impose the same requirements as are contained in the building standards published in the most recent edition of the California Plumbing Code except for changes or modifications deemed reasonably necessary by the County because of local climatic, geologic, or topographic conditions.

The changes and modifications to requirements contained in the building standards published in the 2019 California Plumbing Code that are contained in this ordinance are based upon express findings contained in the ordinance that such changes are reasonably necessary due to local climatic, geologic, or topographic conditions.

This ordinance also makes certain modifications to the administrative provisions of Title 28.

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County Counsel

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Public Works Division

CBS:lm

Requested: 07/15/19
Revised: 10/31/19

HOA.102583890.2

ORDINANCE NO. 2019-0058

An ordinance amending Title 28 – Plumbing Code – of the Los Angeles County Code, by adopting and incorporating by reference portions of the 2019 California Plumbing Code, with certain changes and modifications, and making other revisions thereto.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Sections 119.1.2.0 through 119.1.14.0 of Chapter 1, Chapters 2 through 17, and Appendices A, B, D, H, I, and J, which incorporate by reference and modify portions of the 2016 California Plumbing Code are hereby repealed.

SECTION 2. Chapter 1 is hereby amended to read as follows:

CHAPTER 1

ADMINISTRATION

100 ADOPTION BY REFERENCE.

Except as hereinafter changed or modified, Sections 1.2.0 through 1.14.0 of Chapter 1, Division I, of that certain Plumbing Code known and designated as the ~~2016~~2019 California Plumbing Code as published by the California Building Standards Commission, are adopted and incorporated, by reference, into this Title 28 of the Los Angeles County Code as if fully set forth below, and shall be known as Sections 119.1.2.0 through 119.1.14.0, respectively, of Chapter 1 of Title 28 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 17 and Appendices A, B, D, H, I, and J of that certain Plumbing Code known and designated as the ~~2016~~2019 California Plumbing Code as published by the California Building Standards Commission, are adopted ~~by reference~~ and incorporated by reference into this Title 28 of the Los Angeles County Code as if fully set forth below, and shall be known as Chapters 2 through 17, and Appendices A, B, D, H, I, and J of Title 28 of the Los Angeles County Code.

A copy of the ~~2016~~2019 California Plumbing Code shall be at all times maintained by the Chief Plumbing Inspector for use and examination by the public.

. . .

101.3.1 Repairs and Alterations.

. . .

101.3.1.2 Existing building sewers and building drains may be used in connection with new buildings or new plumbing and drainage work only when they are found upon examination and test performed by the owner or owner's designated agent to conform in all respects to the requirements governing new work~~, and the proper~~. Based on the test result, the Authority Having Jurisdiction shall notify the owner to make any changes necessary to conform to this Code. No building or part thereof~~,~~ shall be erected or placed over any part of a drainage system ~~which~~that is constructed of materials other than those approved elsewhere in this Code for use under or within a building.

Existing building sewers and building drains may be used in connection with plumbing alterations or repairs if such sewers or drains have been properly maintained and found upon examination and test performed by the owner or owner's designated agent that they are in working condition and free from any defect. Applicant shall provide necessary documents showing the existing building sewers and building drains were installed in accordance with the applicable laws in effect at the time of installation. Any plumbing system existing on January 1, 1975, shall be deemed to have conformed to applicable law in effect at the time of installation and to have been maintained in good condition if currently in good and safe condition and working properly.

. . .

103.2 Time Limit. Every permit issued by the Building Official under the provisions of this Code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within ~~180 days~~12 months from the date ~~of~~ such permit is issued, or the work authorized by such permit is suspended or abandoned for a period of 180 days, or the permittee fails to obtain inspection as required by the provisions of Section 104.0 of this Code for a period of 180 days.

Exception: Permits issued to abate violation(s) in conjunction with a code enforcement action shall expire and become null and void at a date not to exceed 12 months from the issuance date or at a date determined by the Building Official.

The Building Official may ~~extend~~grant one or more extensions of the time for action by the permittee for a period not exceeding 180 days from the date of expiration upon written request by the permittee and payment of a fee in an amount determined by

the Building Official, not to exceed 25 percent of the permit fee. ~~No permit shall be extended more than twice.~~ Once a permit, including any extension(s) thereof, has expired, the permittee shall file a new application as specified in Section 103.9.

. . .

103.19 Annual Review of Fees. The fees contained in this Code shall be reviewed annually by the Department of Public Works. Beginning on July 1, 1992, and thereafter on each succeeding July 1, the amount of each fee in this Code shall be adjusted as follows: Calculate the percentage movement between March of the previous year and March of the current year in the Consumer Price Index (CPI) for all urban consumers in the ~~Los Angeles, Anaheim and Riverside~~Los Angeles-Long Beach-Anaheim, CA areas, as published by the United States Government Bureau of Labor Statistics~~.~~; then, ~~A~~adjust each fee by said percentage amount and round off to the nearest ten (10) cents, provided, however, that no adjustment shall decrease any fee and no fee shall exceed the reasonable cost of providing services. When it is determined that the amount reasonably necessary to recover the cost of providing services is in excess of this adjustment, the Chief Plumbing Inspector may present fee proposals to the Board of Supervisors for approval.

SECTION 3. Section 204.0 is hereby amended to read as follows:

204.0 – B –

. . .

Building Code. The most recent edition of Title 26 of the Los Angeles County Code.

. . .

SECTION 4. Section 206.0 is hereby amended to read as follows:

206.0 – D –

. . .

Demand Hot Water Recirculation System. A hot water recirculation system requiring manual activation and equipped with a thermostat that will automatically shut off the recirculation pump when the water temperature reaches a preset level at the point of use.

. . .

SECTION 5. Section 207.0 is hereby amended to read as follows:

207.0 – E –

. . .

Electrical Code. The most recent edition of Title 27 of the Los Angeles County Code.

. . .

SECTION 6. Section 210.0 is hereby amended to read as follows:

210.0 – H –

. . .

Hot Water Recirculation System. A hot water distribution system that reduces the time needed to deliver hot water to fixtures that are distant from the water heater, boiler, or other water heating equipment. The recirculation system is comprised of hot

water supply and return piping with shutoff valves, balancing valves, and circulating pumps, and a method of controlling the circulating system.

. . .

SECTION 7. Section 215.0 is hereby amended to read as follows:

215.0 – M –

. . .

Mechanical Code. The most recent edition of Title 29 of the Los Angeles County Code.

. . .

SECTION 8. Section 301.2.2 is hereby amended to read as follows:

301.2.2 Standards. Standards listed or referred to in this ~~c~~Chapter or other chapters cover materials that will conform to the requirements of this ~~c~~Code, where used in accordance with the limitations imposed in this or other chapters thereof and their listing. Where a standard covers materials of various grades, weights, quality, or configurations, the portion of the listed standard that is applicable shall be used. Design and materials for special conditions or materials not provided for herein shall be permitted to be used only by special permission of the Authority Having Jurisdiction after the Authority Having Jurisdiction has been satisfied as to their adequacy. A list of accepted plumbing material standards is referenced in Table 1701.1. Solar thermal energy systems and material standards are referenced in Tables S 17.1 and S 17.2 of Appendix S. IAPMO Installation Standards are referenced in Appendix I for the convenience of

the users of this ~~c~~Code. It is not considered as a part of this ~~c~~Code unless formally adopted as such by the Authority Having Jurisdiction.

SECTION 9. Section 301.3 is hereby amended to read as follows:

301.3 Alternate Materials and Methods of Construction ~~Equivalency~~ and Modifications.

301.3.1 Alternate Materials and Methods of Construction.

Nothing in this ~~c~~Code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this ~~c~~Code. Technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency prior to installation. The Authority Having Jurisdiction shall have the authority to approve or disapprove the system, method, or device for the intended purpose on a case by case basis. [HCD 1] (See Section 1.8.7).

. . .

301.3.1.1 Testing.

. . .

301.3.1.1.1 Tests.

. . .

301.3.1.~~2~~.1.2 Request by Authority Having Jurisdiction.

. . .

301.3.2 Modifications. Whenever there are practical difficulties involved in carrying out the provisions of this Code, the Authority Having Jurisdiction

shall have the authority to grant modifications on a case by case basis, upon application of the owner or the owner's authorized agent, provided the Authority Having Jurisdiction shall first find that a special individual reason makes the strict letter of this Code impractical, that the modification is in conformity with the spirit and purpose of this Code, and that such modification does not lessen any health, fire-protection, or other life-safety related requirements. The details of any action granting modifications shall be recorded and entered in the files of the Authority Having Jurisdiction. Application for approval of a modification shall be in accordance with Section 103.12.2.

SECTION 10. Section 304.1 is hereby amended to read as follows:

304.1 General. Plumbing fixtures, drains, appurtenances, and appliances~~,~~ used to receive or discharge liquid wastes or sewage~~,~~ shall be connected properly to the drainage system of the building or premises, in accordance with the requirements of this ~~c~~Code.

Exception: *[HCD 1] Limited-density owner-built rural dwellings. Where conventional plumbing, in all or in part, is installed within the structure, it shall be installed in accordance with the provisions of this ~~c~~Code. Alternative materials and methods shall be permitted provided that the design complies with the intent of the ~~c~~Code, and that such alternatives shall perform to protect health and safety for the intended purpose.*

Dual waste piping shall be installed to permit the discharge from clothes washers, bathtubs, showers, and bathroom/restroom wash basins to be used for a graywater irrigation system. Partial connection of plumbing fixtures to the graywater

system, based on accepted engineering practices and required volume of water for irrigation, shall be accepted. Graywater systems shall be designed and installed in accordance with Chapter 15 and other parts of this Code.

Exceptions:

(1) Buildings with a graywater system, rain catchment system, or recycled water system.

(2) Sites with landscape areas not exceeding 500 square feet.

(3) Projects where graywater systems are not permitted due to geological conditions.

(4) Additions and alterations that use the existing building drain.

SECTION 11. Section 601.2 is hereby amended to read as follows:

. . .

601.2.1.1 An individual water meter or submeter shall be provided for each dwelling unit in newly-constructed condominium structures and in newly-constructed mixed-use structures.

601.2.2 Hot Water Recirculation Systems. A hot water recirculation system shall be installed, as defined in Chapter 2, and shall not allow more than 0.6 gallons of water to be delivered to any fixture before hot water arrives. Hot water recirculation systems may include, but are not limited to, the following:

(1) Timer-initiated systems.

(2) Temperature sensor-initiated systems.

(3) Occupancy sensor-initiated systems.

(4) Smart hot water recirculation systems.

(5) Demand hot water recirculation systems.

(6) Other systems acceptable to the Authority Having Jurisdiction.

SECTION 12. Section 609.7 is hereby amended to read as follows:

609.7 Abutting Lot. Nothing contained in this eCode shall be construed to prohibit the use of all or part of an abutting or adjacent lot or lots to:

. . .

SECTION 13. Section 721.3 is hereby added to read as follows:

721.3 Public Sewer. If the public sewer does not extend to a point from which each building on a lot or parcel of land large enough to permit future subdivision can be independently served, the property owner shall construct a public sewer as required by Title 20 – Utilities – of the Los Angeles County Code, Division 2 – Sanitary Sewer and Industrial Waste Ordinance, to provide adequate sewerage for each such possible parcel.

EXCEPTION: When the Authority Having Jurisdiction finds that the character of a lot is such that no further subdivision can be reasonably anticipated, or the use is such as to preclude subdivision, or where the owner has executed a covenant stating that the lot or parcel of land, together with all improvements thereon, will be maintained as a unit and that before any subdivision is made or any portion of said lot is transferred to another owner, separate sewerage facilities as hereinbefore required in this Section will be installed, the drainage system of all buildings may be connected to a common building sewer or private sewage disposal system. The covenant shall be recorded by

the owner in the office of the Registrar-Recorder as part of the conditions of ownership of said property. Such agreement shall be binding on all heirs, successors, and assigns to said property.

This exception shall apply only while the whole of such lot remains in one undivided ownership. Upon the transfer of any portion of such lot other than the whole thereof to another owner, whether such transfer is made before or after the operative date of the ordinance adding this provision, the exception shall cease and a person shall not use or maintain any building or structure except in compliance with the provisions of this Code. As used in this Section, a sale, foreclosure, or contract to sell by the terms of which the purchaser is given the right of possession shall be deemed a transfer.

SECTION 14. Section 728.0 is hereby added to read as follows:

728.0 Building Sewer Connection Requirements.

728.1 Size. That portion of the building sewer extending from the public sewer to the property line shall be not less than four (4) inches (100 mm) in internal diameter.

728.2 Depth. When laid within the limits of any public thoroughfare when the public sewer is sufficiently deep, no building sewer shall be less than six (6) feet (1.8 m) below grade. Whenever practicable, the alignment and grade of each building sewer shall be straight from the public sewer to the property line.

728.3 Taps and Saddles. Whenever it becomes necessary to connect a building sewer to a public sewer at a point where no branch fitting has been

installed in the public sewer, such connection shall be made as required by Title 20 – Utilities – of the Los Angeles County Code, Division 2 – Sanitary Sewer and Industrial Waste Ordinance.

728.4 Connection to Trunks. Whenever required, an approved-type unvented running trap shall be installed in each building sewer, which is connected directly to a trunk sewer by any means whatsoever. Each such running trap shall be installed in the building sewer between the house drain or drains and the connection to the trunk sewer. A T-type cleanout shall be installed in the building sewer immediately below the running trap. This cleanout need not be extended to grade. Every running trap and cleanout shall be located on the lot served by the building sewer.

728.5 Street Widening. Where a future street or road-widening area has been established by the master plan of highways or in any other manner, all work installed in such area shall conform to the requirements established in this or other related ordinances for work on public property.

728.6 Main Line Required. Building sewer construction shall conform to the requirements of main line sewers as set forth in Title 20 – Utilities – of the Los Angeles County Code, Division 2 – Sanitary Sewer and Industrial Waste Ordinance, when either of the following conditions exists:

1. Where the Authority Having Jurisdiction requires such construction because of the character or quantity of the sewage or industrial waste to be discharged.

2. Where the sewer is designed to be, or proposed to be, dedicated to the County of Los Angeles at the present or any future time.

SECTION 15. Table H 101.8 of Appendix H is hereby amended to read as follows:

TABLE H 101.8

LOCATION OF SEWAGE DISPOSAL SYSTEM

MINIMUM HORIZONTAL DISTANCE	BUILDING SEWER	SEPTIC TANK	DISPOSAL FIELD	SEEPAGE PIT OR CESSPOOL
Building or structures[1]	2 feet	5 feet	8 feet	8 feet
Property line adjoining private property	Clear[2]	5 feet	5 feet	8 feet
Water supply wells[9]	50 feet[3]	50 feet	100 feet	150 feet
Streams and other bodies of water[9]	50 feet	50 feet	100 feet[7]	150 feet[7]
Trees[10]		10 feet		10 feet
Seepage pits or cesspools[8]		5 feet	5 feet	12 feet
Disposal field[8]		5 feet	4 feet[4]	5 feet
On-site domestic water service line	1 foot[5]	5 feet	5 feet	5 feet
Distribution box			5 feet	5 feet
Pressure public water main	10 feet[6]	10 feet	10 feet	10 feet

For SI units: 1 foot = 304.8 mm

Notes:

1 Including porches and steps, whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances.

2 See Section 312.3.

3 Drainage piping shall clear domestic water supply wells by not less than 50 feet (15 240 mm). This distance shall be permitted to be reduced to not less than 25 feet (7620 mm) where the drainage piping is constructed of materials approved for use within a building.

4 Plus 2 feet (610 mm) for each additional 1 foot (305 mm) of depth in excess of 1 foot (305 mm) below the bottom of the drain line. (See Section H 601.0)

5 See Section 720.0.

6 For parallel construction -- For crossings, approval by the Health Department shall be required.

7 These minimum clear horizontal distances shall also apply between disposal fields, seepage pits, and the mean high-tide line.

8 Where disposal fields, seepage pits, or both are installed in sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be 15 feet (4572 mm).

9 Where special hazards are involved, the distance required shall be increased as may be directed by the Authority Having Jurisdiction.

10 The septic tank and seepage pit shall not be within the protected zone of an oak tree as defined by Section 22.14.150 of Title 22 – Planning and Zoning – of the Los Angeles County Code.

SECTION 16. Table H 201.1(1) of Appendix H is hereby amended to read as follows:

TABLE H 201.1(1)

CAPACITY OF SEPTIC TANKS[1, 2, 3, 4, 5]

SINGLE-FAMILY DWELLINGS - NUMBER OF BEDROOMS	MULTIPLE DWELLING UNITS OR APARTMENTS - ONE BEDROOM EACH	OTHER USES: MAXIMUM FIXTURE UNITS SERVED PER TABLE 702.1	MINIMUM SEPTIC TANK CAPACITY (gallons)
1 or 2	—	15	750
3	—	20	1000
4	2 units	25	1200
5 or 6	3	33	1500
—	4	45	2000
—	5	55	2250
—	6	60	2500
—	7	70	2750
—	8	80	3000
—	9	90	3250
—	10	100	3500

For SI units: 1 gallon = 3.785 L

Notes:

1 Extra bedroom, 150 gallons (568 L) each.

2 Extra dwelling units over 10:250 gallons (946 L) each.

3 Extra fixture units over 100, 25 gallons (94.6 L) per fixture unit.

4 Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposers without further volume increase.

5 Applies to mobile homes not installed in a mobile home park.

SECTION 17. Table H 201.1(2) of Appendix H is hereby amended to read as follows:

TABLE H 201.1(2)

DESIGN CRITERIA OF ~~FIVE~~SIX TYPICAL SOILS

TYPE OF SOIL	REQUIRED SQUARE FEET OF LEACHING AREA PER 100 GALLONS	MAXIMUM ABSORPTION CAPACITY IN GALLONS PER SQUARE FEET OF LEACHING AREA FOR A 24 HOUR PERIOD
Coarse sand or gravel	20	5.0
Fine sand	25	4.0
Sandy loam ~~or sandy clay~~	40	2.5
Sandy clay	60	1.66
Clay with considerable sand or gravel	90	1.1
Clay with small amount of sand or gravel	120	0.8

For SI units: 1 square foot = 0.0929 m^2, 1 gallon = 3.785 L, 1 gallon per square foot = 40.7 L/m^2

SECTION 18. Table H 201.1(3) of Appendix H is hereby amended to read as follows:

TABLE H 201.1(3)

LEACHING AREA SIZE BASED ON SEPTIC TANK CAPACITY

REQUIRED SQUARE FEET OF LEACHING AREA PER 100 GALLONS SEPTIC TANK CAPACITY (square feet per 100 gallons)	MAXIMUM SEPTIC TANK SIZE ALLOWABLE (gallons)
20-25	7500
40	5000
60	3500
90	~~3500~~3000
120	~~3000~~2500

For SI units: 1 square foot per 100 gallons = 0.000245 m^2/L, 1 gallon = 3.785 L

SECTION 19. Table H 201.1(4) of Appendix H is hereby amended to read as follows:

TABLE H 201.1(4)

ESTIMATED WASTE SEWAGE FLOW RATES[1, 2, 3]

TYPE OF OCCUPANCY	GALLONS PER DAY
Airports (per employee)	15
Airports (per passenger)	5
Auto washers – check with equipment manufacturer	-
Bowling alleys – with snack bar only (per lane)	75
Campground – with central comfort station (per person)	35
Campground – with flush toilets - no showers (per person)	25
Camps (day) – no meals served (per person)	15
Camps (summer and seasonal camps) – (per person)	50
Churches – sanctuary (per seat)	5
Churches – with kitchen waste (per seat)	7
Dance halls – (per person)	5
Factories – no showers (per employee)	25
Factories – with showers (per employee)	35
Factories – with cafeteria (per employee)	5
Hospitals – (per bed)	250
Hospitals – kitchen waste only (per bed)	25
Hospitals – laundry waste only (per bed)	40
Hotels – no kitchen waste (per bed)	60
Institutions – resident (per person)	75
Nursing home – (per person)	125
Rest home – (per person)	125
Laundries – self-service with minimum 10 hours per day (per ~~wash cycle~~machine)	3005~~0~~
Laundries – commercial check with manufacturer's specification	-

Motel (per bed space)	50
Motel – with kitchen (per bed space)	60
Offices – (per employee)	20
~~Parks – mobile homes (per space)~~	~~250~~
Parks (picnic) – with toilets only (per parking space)	20
Parks (recreational vehicles) – without water hook-up (per space)	75
Parks (recreational vehicles) – with water and sewer hook-up (per space)	100
Restaurants – cafeteria (per ~~employee~~seat)	50~~20~~
~~Restaurants – with toilet waste (per customer)~~	~~7~~
~~Restaurants – with kitchen waste (per meal)~~	~~6~~
~~Restaurants – with kitchen waste disposable service (per meal)~~	~~2~~
~~Restaurants – with garbage disposal (per meal)~~	~~1~~
~~Restaurants – with cocktail lounge (per customer)~~	~~2~~
Schools staff and office (per person)	20
Schools – elementary (per student)	15
Schools – intermediate and high (per student)	20
Schools – with gym and showers (per student)	5
Schools – with cafeteria (per student)	3
Schools (boarding) – total waste (per person)	100
Service station – with toilets for 1st bay	1000
Service station – with toilets for each additional bay	500
Stores – (per employee)	20
Stores – with public restrooms (per 10 square feet of floor space)	1
Swimming pools – public (per person)	10
Theaters – auditoriums (per seat)	5
Theaters – with drive-in (per space)	10

For SI units: 1 square foot = 0.0929 m^2, 1 gallon per day 3.785 L/day

Notes:

~~1 Sewage disposal systems sized using the estimated waste/sewage flow rates shall be calculated as follows:~~

~~(a) Waste/sewage flow, up to 1500 gallons per day (5678 L/day)~~
~~Flow x 1.5 = septic tank size~~

~~(b) Waste/sewage flow, over 1500 gallons per day (5678 L/day)~~
~~Flow x 0.75 + 1125 = septic tank size~~

~~(c) Secondary system shall be sized for total flow per 24 hours.~~

21 See Section H 2.1.

32 Because of the many variables encountered, it is not possible to set absolute values for waste/sewage flow rates for all situations. The designer should evaluate each situation and, where figures in this table need modification, they should be made with the concurrence of the Authority Having Jurisdiction.

SECTION 20. Section H 301.1 is hereby amended to read as follows:

H 301.1 General.

. . .

(3) No excavation for a leach line or leach bed shall be located within 5 feet (1,524 mm) of ~~the~~groundwater ~~table~~ nor to a depth where sewage ~~is capable of contaminating~~may contaminate the underground water stratum ~~that is useable for domestic purposes~~.

Exception: ~~In areas where the records or data indicate that the groundwaters are grossly degraded, the 5 foot (1524 mm) separation requirement shall be permitted to be reduced by the Authority Having Jurisdiction.~~When approved by the Authority Having Jurisdiction, this distance may be reduced to 5 feet (1.5 m) from ocean water. The applicant shall supply evidence of groundwater depth to the satisfaction of the Authority Having Jurisdiction.

(4) The minimum effective absorption area in any seepage pit shall be calculated as the excavated sidewall area below the inlet exclusive of any hardpan, rock, clay, or other impervious formations. The minimum required area of porous formation shall be provided in one or more seepage pits. No excavation shall extend within 10 feet (3048 mm) of ~~the~~groundwater ~~table~~ nor to a depth where sewage ~~is~~

~~capable of contaminating~~may contaminate underground water stratum ~~that is useable for domestic purposes~~.

Exception: ~~In areas where the records or data indicate that the groundwaters are grossly degraded, the 10 foot (3048 mm) separation requirement shall be permitted to be reduced by the Authority Having Jurisdiction.~~When approved by the Authority Having Jurisdiction, this distance may be reduced to 5 feet (1.5 m) from ocean water.

. . .

SECTION 21. Section H 401.3 is hereby amended to read as follows:

H 401.3 Absorption Rates. Where a percolation test is required, the proposed system shall have the capability to absorb a quantity of clear water in a 24-hour period equal to at least five times the liquid capacity of the proposed septic tank. ~~n~~No private disposal system shall be permitted to serve a building if that test shows the absorption capacity of the soil is less than 0.83 gallons per square foot (gal/ft^2) (33.8 L/m^2) or more than 5.12 gal/ft^2 (208.6 L/m^2) of leaching area per 24 hours. Where the percolation test shows an absorption rate greater than 5.12 gal/ft^2 (208.6 L/m^2) per 24 hours, a private disposal system shall be permitted where the site does not overlie groundwaters protected for drinking water supplies, a minimum thickness of 2 feet (610 mm) of the native soil below the entire proposed system is replaced by loamy sand, and the system design is based on percolation tests made in the loamy sand.

SECTION 22. Section H 601.5 is hereby amended to read as follows:

H 601.5 Distribution Boxes. Where two or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be

installed at the head of each disposal field. The inverts of outlets shall be level, and the invert of the inlet shall be not less than 1 inch (25.4 mm) above the outlets. Distribution boxes shall be designed to ensure equal flow and shall be installed on a level concrete slab in natural or compacted soil. Distribution boxes shall be coated on the inside with a bituminous coating or other approved method acceptable to the Authority Having Jurisdiction.

SECTION 23. Section H 601.8 is hereby amended to read as follows:

H 601.8 Dosing Tanks. ~~Where the quantity of sewage exceeds the amount that is permitted to be disposed in 500 lineal feet (152.4 m) of leach line, a dosing tank shall be used. Dosing tanks shall be equipped with an automatic siphon or pump that discharges the tank once every 3 or 4 hours. The tank shall have a capacity equal to 60 to 75 percent of the interior capacity of the pipe to be dosed at one time. Where the total length of pipe exceeds 1000 lineal feet (304.8 m), the dosing tank shall be provided with two siphons or pumps dosing alternately and each serving one-half of the leach field.~~Automatic syphon or dosing tanks shall be installed when required or as permitted by the Authority Having Jurisdiction.

SECTION 24. Section H 701.2 is hereby amended to read as follows:

H 701.2 Multiple Installations. Multiple seepage pit installations shall be served through an approved distribution box or be connected in series ~~using watertight connection laid on undisturbed or compacted soil. The outlet from the pit shall have~~. When connected in series, the effluent shall leave each pit through an approved vented leg fitting extending not less than 12 inches (305 mm) ~~below the inlet~~

~~fitting~~downward into such existing pit and having its outlet flow line at least 6 inches below the inlet. All pipe between pits shall be laid with approved watertight joints.

SECTION 25. Section H 1001.1 is hereby amended to read as follows:

H 1001.1 Inspection. Inspection requirements shall comply with the following:

(1) Applicable provisions of Section ~~105.0~~104.0 of this ~~c~~Code and this ~~a~~Appendix shall be required. Plans shall be required in accordance with Section ~~103.3~~102.1 of this ~~c~~Code.

. . .

(5) Disposal fields and seepage pits shall not be installed in uncompacted fill.

SECTION 26. Section H 1101.6 is hereby added to read as follows:

H 1101.6 Excavation. No excavation for an abandoned sewer or sewage facility shall be left unattended at any time, unless the permittee shall have first provided a suitable and adequate barricade to assure public safety.

SECTION 27. Appendix M 10 is hereby added to read as follows:

M 10 For one- and two-family dwellings, any new permanently installed outdoor in-ground swimming pool or spa shall be equipped with an automatic cover. For irregular-shaped pools where it is infeasible to cover 100 percent of the pool due to its irregular shape, the largest possible area of the pool (minimum 80 percent) shall be covered. For additions and alterations, non-automatic covers shall be accepted.

SECTION 28. Section S 5.2 is hereby amended to read as follows:

S 5.2 Standards. Standards listed or referred to in this Appendix or other provisions of this Code cover materials that will conform to the requirements of this Code, where used in accordance with the limitations prescribed in this Code and their listing. Where a standard covers materials of various grades, weights, quality, or configurations, the portion of the listed standard that is applicable shall be used. Design and materials for special conditions or materials not provided for herein may be permitted as authorized by Section 301.3. A list of ~~accepted material standards is referenced in Table S-17~~standards that appear in specific sections of this Appendix are referenced in Table S 17.1. A list of additional standards, publications, practices, and guides that are not referenced in specific sections of this Appendix appear in Table S 17.2. The documents indicated in Table S 17.2 shall be permitted in accordance with Section 301.3.

SECTION 29. Table S 13.2 is hereby amended to read as follows:

TABLE S 13.2

MATERIALS FOR SOLAR THERMAL SYSTEM, PIPING, TUBING, AND FITTINGS

MATERIAL	PIPING/TUBING	FITTINGS
Copper/Copper Alloy	ASTM B42, ASTM B43, ASTM B75, ASTM B88, ASTM B135, ASTM B251[21], ASTM B302, ASTM B447	ASME B16.15, ASME B16.18, ASME B16.22, ASME B16.23, ASME B16.24, ASME B16.26, ASME B16.29, ASME B16.51
~~Ductile Iron~~	~~AWWA C115, AWWA C151~~	~~AWWA C110[1], AWWA C153~~
Steel	ASTM A53, ASTM A106, ASTM A254	ASME B16.5, ASME B16.9, ASME B16.11, ASTM A420
Gray Iron	—	ASTM A126
Malleable Iron	—	ASME B16.3
~~Acrylonitrile Butadiene Styrene (ABS)~~	~~ASTM D1527~~	—

Chlorinated Polyvinyl Chloride (CPVC)	ASTM D2846, ASTM F441, ASTM F442, CSA B137.6	ASSE 1061, ASTM D2846, ASTM F437, ASTM F438, ASTM F439, ASTM F1970, CSA B137.6
Polyethylene (PE)	ASTM D1693, ASTM D2513, ASTM D2683, ~~ASTM D2837,~~ ASTM D2737, ASTM D3035, ASTM D3350, ASTM F714, AWWA C901, ~~ASTM F1055,~~ CSA B137.1, NSF 358-1	ASTM D2609, ASTM D2683, ASTM D3261, ASTM F1055, CSA B137.1, NSF 358-1
Cross-Linked Polyethylene (PEX)	ASTM F876, ~~ASTM F877,~~ CSA B137.5, NSF 358-3	ASSE 1061, ASTM F877, ASTM F1807, ASTM F1960, ASTM F1961, ASTM F2080, ASTM F2098, ASTM F2159, ASTM F2735, CSA B137.5, NSF 358-1
Polypropylene (PP)	ASTM F2389, NSF 358-2	ASTM F2389, NSF 358-2
Polyvinyl Chloride (PVC)	ASTM D1785, ASTM D2241, CSA B137.3	ASTM D2464, ASTM D2466, ASTM D2467, ASTM F1970, CSA B137.2, CSA B137.3
Raised Temperature Polyethylene (PE-RT)	ASTM F2623, ASTM F2769, CSA B137.18	ASTM 1061, ASTM F1807, ASTM F2159, ASTM F2735, ASTM F2769, CSA B137.18
Cross-Linked Polyethylene/Aluminum/ Cross-Linked Polyethylene (PEX-AL-PEX)	ASTM F1281, ASTM F2262, CSA B137.10	ASTM F1281, ASTM F1974, ASTM F2434, CSA B137.10
Polyethylene/Aluminum/Polyethylene (PE-AL-PE)	ASTM F1282, CSA B137.9	ASTM F1282, ASTM F1974, CSA B137.9
Stainless Steel	ASTM A269, ASTM A312	—
Chlorinated Polyvinyl, Chloride/Aluminum/Chlorinated Polyvinyl Chloride (CPVC/AL/CPVC)	ASTM 2855	ASTM D2846

Notes:

~~1 Ductile and gray iron.~~

~~2~~ 1 Only Type K, L, or M shall be permitted to be installed.

SECTION 30. Table S 17 is hereby amended to read as follows:

S 17.0 General.

S 17.1 Referenced Standards. The standards listed in Table ~~S-17.0 are intended for use in the design, testing, and installation of materials, devices, appliances, and equipment regulated by this Chapter.~~ S 17.1 are referenced in various sections of this Appendix and shall be considered part of the requirements of this Code.

The standards are listed herein by the standard number and effective date, the title, and application. The application of the referenced standard(s) shall be as specified in Section S 5.2.

TABLE S 17.01

REFERENCED STANDARDS

STANDARD NUMBER	STANDARD TITLE	APPLICATION
~~AHRI 870-2005*~~	~~Performance Rating of Direct GeoExchange Heat Pumps~~	~~Equipment~~
~~ASCE 25-2006*~~	~~Earthquake-Actuated Automatic Gas Shutoff Devices~~	~~Fuel Gas~~
~~ASHRAE 34-2013*~~	~~Designation and Safety Classification of Refrigerants~~	~~Refrigerant Classifications~~
~~ASHRAE 90.1-2013*~~	~~Energy Standard for Buildings Except Low-Rise Residential Buildings~~	~~Energy~~
~~ASHRAE 93-2010 (RA2014)*~~	~~Methods of Testing to Determine the Thermal Performance of Solar Collectors~~	~~Testing~~
~~ASHRAE 95-1981 (RA1987)*~~	~~Methods of Testing to Determine the Thermal Performance of Solar Domestic Water Heating Systems~~	~~Testing~~
~~ASHRAE 96-1980 (RA1989)*~~	~~Thermal Performance of Unglazed Flat-Plate Liquid-Type Solar Collectors~~	~~Testing, Collector~~
~~ASME A13.1-2007 (R2013)*~~	~~Scheme for the Identification of Piping Systems~~	~~Piping~~
~~ASME A112.18.1-2012/CSA B125.1-2012~~	~~Plumbing Supply Fittings~~	~~Fittings~~
~~ASME A112.18.2-2011/CSA B125.2-2011~~	~~Plumbing Waste Fittings~~	~~Fittings~~
~~ASME A112.18.6-2009/CSA B125.6-2009~~	~~Flexible Water Connectors~~	~~Piping~~
ASME B1.20.1-2013*	Pipe Threads, General Purpose (Inch)	Joints
ASME B16.3-2016*	Malleable Iron Threaded Fittings: Classes 150 and 300	Fittings
ASME B16.5-2013*	Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch	Fittings
ASME B16.9-2012*	Factory-Made Wrought Buttwelding Fittings	Fittings
ASME B16.11-2016*	Forged Fittings, Socket-Welding and Threaded	Fittings
~~ASME B16.12-2009*~~	~~Cast Iron Threaded Drainage Fittings~~	~~Fittings~~
ASME B16.15-2013*	Cast Copper Alloy Threaded Fittings: Classes 125 and 250	Fittings
ASME B16.18-2012*	Cast Copper Alloy Solder Joint Pressure Fittings	Fittings
~~ASME B16.21-2011*~~	~~Nonmetallic Flat Gaskets for Pipe Flanges~~	~~Joints~~

ASME B16.22-2013*	Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings	Fittings
ASME B16.23-2016~~1~~*	Cast Copper Alloy Solder Joint Drainage Fittings: DWV	Fittings
ASME B16.24-2016~~1~~*	Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500, and 2500	Fittings
ASME B16.26-2013*	Cast Copper Alloy Fittings for Flared Copper Tubes	Fittings
ASME B16.29-2012*	Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings - DWV	Fittings
~~ASME B16.33-2012*~~	~~Manually Operated Metallic Gas Valves for Use in Gas Piping Systems Up to 175 psi (Sizes NPS 1/2 – NPS 2)~~	~~Valves~~
~~ASME B16.34-2013*~~	~~Valves – Flanged, Threaded, and Welding End~~	~~Valves~~
~~ASME B16.47-2011*~~	~~Large Diameter Steel Flanges: NPS 26 Through NPS 60 Metric/Inch~~	~~Fittings~~
ASME B16.51-2013*	Copper and Copper Alloy Press-Connect Pressure Fittings	Fittings
~~ASME BPVC Section IV-2013*~~	~~Rules for Construction of Heating Boilers~~	~~Miscellaneous~~
ASME BPVC Section VIII-2015~~3~~*	Rules for Construction of Pressure Vessels Division 1	Miscellaneous
~~ASME BPVC Section IX-2013*~~	~~Welding, Brazing, and Fusing Qualifications~~	~~Certification~~
ASME BPVC Section X-2015~~3~~*	Fiber-Reinforced Plastic Pressure Vessels	Pressure Vessel Construction, Pressure Vessels
ASME SA194-2015~~3~~*	Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both	Mounting
~~ASSE 1001-2008*~~	~~Atmospheric Type Vacuum Breakers~~	~~Backflow Protection~~
~~ASSE 1010-2004*~~	~~Water Hammer Arresters~~	~~Water Supply Component~~
ASSE 1017-2009*	Temperature Actuated Mixing Valves for Hot Water Distribution Systems	Valves
~~ASSE 1018-2001*~~	~~Trap Seal Primer Valves–Potable Water Supplied~~	~~Valves~~
ASSE 1061-2015~~1~~*	Push-Fit Fittings	Fittings
ASSE 1079-2012	Dielectric Pipe Unions	Joints
ASTM A53/A53M-2012	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless	Piping~~, Ferrous~~
~~ASTM A74-2013a~~	~~Cast Iron Soil Pipe and Fittings~~	~~Piping, Ferrous~~
ASTM A106/A106M-2015~~4~~	Seamless Carbon Steel Pipe for High-Temperature Service	Piping~~, Ferrous~~
ASTM A126-2004 (R2014)	Gray Iron Castings for Valves, Flanges, and Pipe Fittings	Piping~~, Ferrous~~
ASTM A254/A254M-2012	Copper-Brazed Steel Tubing	Piping~~, Ferrous~~
ASTM A269/A269M-2015a4~~e1~~	Seamless and Welded Austenitic Stainless Steel Tubing for General Service	Piping~~, Ferrous~~
ASTM A312/A312M-2017~~4~~	Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes	Piping~~, Ferrous~~
~~ASTM A377-2003 (R2008)e1~~	~~Ductile-Iron Pressure Pipe~~	~~Piping, Ferrous~~
ASTM A420/A420M-2016~~3~~	Piping Fittings of Wrought Carbon Steel and Alloy Steel for Low-Temperature Service	Fittings

~~ASTM A518/A518M-1999 (R2012)~~	~~Corrosion-Resistant High-Silicon Iron Castings~~	~~Piping, Ferrous~~
~~ASTM A733-2013~~	~~Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples~~	~~Piping, Ferrous~~
~~ASTM A861-2004 (R2013)~~	~~High-Silicon Iron Pipe and Fittings (Note 1)~~	~~Piping, Ferrous~~
ASTM B32-2008 (R2014)	Solder Metal ~~(Note 2)~~	Joints
ASTM B42-2015a~~0~~	Seamless Copper Pipe, Standard Sizes	Piping~~, Copper Alloy~~
ASTM B43-2015~~4~~	Seamless Red Brass Pipe, Standard Sizes	Piping~~, Copper Alloy~~
ASTM B75/B75M-2011	Seamless Copper Tube	Piping~~, Copper Alloy~~
ASTM B88-201~~609~~	Seamless Copper Water Tube	Piping~~, Copper Alloy~~
ASTM B135-2010	Seamless Brass Tube	Piping~~, Copper Alloy~~
ASTM B251-2010	General Requirements for Wrought Seamless Copper and Copper-Alloy Tube	Piping~~, Copper Alloy~~
~~ASTM B280-2013~~	~~Seamless Copper Tube for Air Conditioning and Refrigeration Field Service~~	~~Piping, Ferrous~~
ASTM B302-2012	Threadless Copper Pipe, Standard Sizes	Piping~~, Copper Alloy~~
~~ASTM B306-2013~~	~~Copper Drainage Tube (DWV)~~	~~Piping, Copper Alloy~~
ASTM B447-2012a	Welded Copper Tube	Piping~~, Copper Alloy~~
~~ASTM B584-2014~~	~~Copper Alloy Sand Castings for General~~	~~Piping, Copper Alloy~~
~~ASTM B587-2012~~	~~Welded Brass Tube~~	~~Piping, Copper Alloy~~
~~ASTM B687-1999 (R2011)~~	~~Brass, Copper, and Chromium-Plated Pipe Nipples~~	~~Piping, Copper Alloy~~
ASTM B813-2010	Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube	Joints
ASTM B828-201~~602 (R2010)~~	Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings	Joints
ASTM C411-2011	Hot-Surface Performance of High-Temperature Thermal Insulation	~~Block Board, Cracking, Delamination, Hot Surface Performance, Pipe Thermal Insulation, Surface Analysis Building, Temperature Tests Insulation, Thermal Insulating Materials~~Duct Coverings and Linings
~~ASTM C425-2004 (R2013)~~	~~Compression Joints for Vitrified Clay Pipe and Fittings~~	~~Joints~~
~~ASTM C443-2012~~	~~Joints for Concrete Pipe and Manholes, Using Rubber Gaskets~~	~~Joints~~
~~ASTM C564-2014~~	~~Rubber Gaskets for Cast Iron Soil Pipe and Fittings~~	~~Joints~~
~~ASTM C700-2013~~	~~Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated~~	~~Piping, Non-Metallic~~
~~ASTM C1277-2014~~	~~Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings~~	~~Joints~~
~~ASTM D56-2005 (R2010)~~	~~Flash Point by the Tag Closed Cup Tester~~	~~Testing~~
~~ASTM D93-2013e1~~	~~Flash Point by Pensky-Martens Closed Cup Tester~~	~~Testing~~
~~ASTM D635-2010~~	~~Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position~~	~~Testing~~
~~ASTM D1527-1999 (R2005)*~~	~~Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80~~	~~Piping, Plastic~~
ASTM D1693-2015~~3~~	Environmental Stress-Cracking of Ethylene Plastics	Piping~~, Plastic~~

ASTM D1785-20152*	Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120	Piping, Plastic
ASTM D2235-2004 (R2011)*	Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings	Joints
ASTM D2241-201509*	Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)	Piping, Plastic
ASTM D2464-201513*	Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 (Note 1)	Fittings
ASTM D2466-20153*	Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 (Note 1)	Fittings
ASTM D2467-20153a*	Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 (Note 1)	Fittings
ASTM D2513-2016a4*	Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings (Note 1)	Piping, Plastic
ASTM D2564-2012*	Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems	Joints
ASTM D2609-201502 (R2008)*	Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe (Note 1)	Fittings
ASTM D2672-1996a (R2009)*	Joints for IPS PVC Pipe Using Solvent Cement	Joints
ASTM D2683-20140 e3*	Socket-Type Polyethylene Fittings for Outside Diameter- Controlled Polyethylene Pipe and Tubing	Fittings
ASTM D2737-2012a	Polyethylene (PE) Plastic Tubing	Piping
ASTM D2837-2013e1	Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure-Design Basis for Thermoplastic Pipe Products	Piping, Plastic
ASTM D2846/D2846M-201409be1*	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems	Piping, Plastic
ASTM D2855-1996 (R2010)*	Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings	Joints
ASTM D3035-20154*	Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter	Piping, Plastic
ASTM D3139-1998 (R2011)*	Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals	Joints
ASTM D3261-20162e1*	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing	Fittings
ASTM D3278-1996 (R2011)	Flash Point of Liquids by Small Scale Closed-Cup Apparatus	Testing
ASTM D3350-20142e1	Polyethylene Plastics Pipe and Fittings Materials	Piping, Plastic
ASTM E84-20164*	Surface Burning Characteristics of Building Materials	Miscellaneous
ASTM E136-2012*	Behavior of Materials in a Vertical Tube Furnace at 750°C	Furnace
ASTM E2231-2014*	Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics	Miscellaneous
ASTM F437-201509*	Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80	Fittings
ASTM F438-201509*	Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40	Fittings

ASTM F439-2013*	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80	Fittings
ASTM F441/F441M-2015~~3~~^{e1}*	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80	Piping~~, Plastic~~
ASTM F442/F442M-2013^{e1}*	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR- PR)	Piping, Plastic
~~ASTM F480-2014*~~	~~Thermoplastic Well Casing Pipe and Couplings Made in Stand- ard Dimension Ratios (SDR), SCH 40 and SCH 80~~	~~Piping, Plastic~~
ASTM F493-2014~~0~~*	Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings	Joints
~~ASTM F628-2012^{e1}*~~	~~Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core (Note 1)~~	~~Piping, Plastic~~
ASTM F656-2015~~0~~*	Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings	Joints
ASTM F714-2013*	Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter	Piping~~, Plastic~~
ASTM F876-2015~~3~~a*	Crosslinked Polyethylene (PEX) Tubing	Piping~~, Plastic~~
ASTM F877-2011a*	Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems	Piping~~, Plastic~~
~~ASTM F891-2010*~~	~~Coextruded Poly(Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core~~	~~Piping, Plastic~~
ASTM F1055-2016~~3~~*	Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing	Fittings
ASTM F1281-2011*	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe	Piping~~, Plastic~~
ASTM F1282-2017~~0~~*	Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe	Piping~~, Plastic~~
ASTM F1807-2017~~3~~a*	Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing	Fittings
ASTM F1960-2015~~2~~*	Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing	Fittings
ASTM F1961-2009*	Metal Mechanical Cold Flare Compression Fittings with Disc Spring for Crosslinked Polyethylene (PEX) Tubing	Fittings
ASTM F1970-2012^{e1}*	Special Engineered Fittings, Appurtenances or Valves for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Systems	Piping~~, Plastic~~
ASTM F1974-2009 (R2015)*	Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe	Fittings
ASTM F2080-2016~~2~~*	Cold-Expansion Fittings with Metal Compression-Sleeves for Cross-Linked Polyethylene (PEX) Pipe	Fittings

ASTM F2098-2015	Stainless Steel Clamps for Securing SDR9 Cross-linked Polyethylene (PEX) Tubing to Metal Insert and Plastic Insert Fittings	Fittings
ASTM F2159-20141*	Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing	Fittings ~~Joints~~
ASTM F2262-2009*	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Tubing OD Controlled SDR9	Piping, Plastic
ASTM F2389-2017a~~0~~	Pressure-Rated Polypropylene (PP) Piping Systems	Piping~~, Plastic~~
ASTM F2434-201409*	Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross- linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing	Pipe Fittings
ASTM F2620-2013*	Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings	Joints
ASTM F2623-201408*	Polyethylene of Raised Temperature (PE-RT) SDR9 Tubing	Piping~~, Plastic~~
ASTM F2735-2009 (R2016)*	Plastic Insert Fittings for SDR9 Cross-linked Polyethylene (PEX) and Polyethylene of Raised Temperature (PE-RT) Tubing	Fittings
ASTM F2769-20160*	Polyethylene of Raised Temperature (PE-RT) Plastic Hot and Cold-Water Tubing and Distribution Systems	Piping and Fittings~~, Plastic~~
ASTM F2855-2012	Specification for Chlorinated Poly (Vinyl Chloride)/Aluminum/Chlorinated Poly (Vinyl Chloride) (CPVC-AL-CPVC) Composite Pressure Testing	Piping, Plastic
AWS A5.8M/A5.8-2011*	Filler Metals for Brazing and Braze Welding	Joints
AWWA C901-2017	Polyethylene (PE) Pressure Pipe and Tubing, ¾ In. (19 mm) Through 3 In. (76 mm), for Water Service	Piping
~~AWS B2.2/B2.2M-2010*~~	~~Brazing Procedure and Performance Qualification~~	~~Certification~~
~~AWWA C110-2012*~~	~~Ductile-Iron and Gray-Iron Fittings~~	~~Fittings~~
~~AWWA C111-2012*~~	~~Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings (same as ANSI A21.11)~~	~~Joints~~
~~AWWA C115-2011*~~	~~Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges~~	~~Piping~~
~~AWWA C151-2009*~~	~~Ductile-Iron Pipe, Centrifugally Cast~~	~~Piping, Ferrous~~
~~AWWA C153-2011*~~	~~Ductile-Iron Compact Fittings~~	~~Fittings~~
~~AWWA C203-2008*~~	~~Coal-Tar Protective Coatings and Linings for Steel Water Pipelines–Enamel and Tape–Hot Applied~~	~~Miscellaneous~~
~~AWWA C213-2007*~~	~~Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines~~	~~Miscellaneous~~
~~AWWA C215-2010*~~	~~Extruded Polyolefin Coatings for the Exterior of Steel Water Pipeline~~	~~Miscellaneous~~
~~AWWA C500-2009*~~	~~Metal-Seated Gate Valves for Water Supply Service~~	~~Valves~~

~~AWWA C507-2011*~~	~~Ball Valves, 6 in. through 60 in. (150 mm through 1,500 mm)~~	~~Valves~~
~~BS EN 12975-1-2006 (R2010)~~	~~Thermal Solar Systems and Components – Solar Collectors – Part 1: General Requirements~~	~~Collector~~
~~BS EN 12975-2-2006~~	~~Thermal Solar Systems and Components – Solar Collectors – Part 2: Test Methods~~	~~Collector~~
~~BS EN 12976-1-2006~~	~~Thermal Solar Systems and Components – Factory Made Systems – Part 1: General Requirements~~	~~Solar System~~
~~BS EN 12976-2-2006~~	~~Thermal Solar Systems and Components – Factory Made Systems – Part 2: Test Methods~~	~~Solar System~~
~~BS EN ISO 9488-2000~~	~~Solar Energy – Vocabulary~~	~~Miscellaneous~~
CSA B137.1-2017~~3~~	Polyethylene (PE) Pipe, Tubing, and Fittings for Cold-Water Pressure Services	Piping~~, Plastic~~
CSA B137.2-2017	Polyvinylchloride (PVC) Injection-Moulded Gasketed Fittings for Pressure Applications	Fittings
CSA B137.3-2017	Rigid Polyvinylchloride (PC) Pipe and Fittings for Pressure Applications	Piping, Fittings
CSA B137.5-2017~~3~~	Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications	Piping~~, Plastic~~
CSA B137.6-2017	Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing, and Fitting for Hot- and Cold-Water Distribution Systems	Piping, Fittings
CSA B137.9-2017~~3~~	Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure-Pipe Systems	Piping~~, Plastic~~
CSA B137.10-2017~~3~~	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Composite Pressure-Pipe Systems	Piping~~, Plastic~~
CSA B137.11-2017~~3~~	Polypropylene (PP-R) Pipe and Fittings for Pressure Applications	Piping~~, Plastic~~
CSA B137.18-2017	Polyethylene of Raised Temperature Resistance (PRE-RT) Tubing Systems for Pressure Applications	Piping, Fittings
CSA Z21.10.1-2014~~3*~~	Gas Water Heaters -Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less (same as CSA 4.1)	Fuel Gas, Appliances
CSA Z21.10.3-2015~~3*~~	Gas-Fired Water Heaters -Volume III, Storage Water Heaters with Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous (same as CSA 4.3)	Fuel Gas, Appliances
ICC 901/SRCC 100-2015	Solar Thermal Collector Standard	Collectors
~~CSA Z21.13-2014*~~	~~Gas-Fired Low-Pressure Steam and Hot Water Boilers (same as CSA 4.9)~~	~~Fuel Gas, Appliances~~
~~CSA Z21.22b-2001 (R2008)*~~	~~Relief Valves for Hot Water Supply Systems (same as CSA 4.4b)~~	~~Valves~~
~~CSA Z21.24a-2009 (R2011)*~~	~~Connectors for Gas Appliances (same as CSA 6.10a)~~	~~Fuel Gas~~
~~CSA Z21.56-2014*~~	~~Gas-Fired Pool Heaters (same as CSA 4.7)~~	~~Fuel Gas, Swimming Pools and Spas, and Hot Tubs~~
~~IAPMO IS 8-2006~~	~~PVC Cold Water Building Supply and Yard Piping~~	~~Piping, Plastic~~
~~IAPMO IS 13-2006~~	~~Protectively Coated Pipe~~	~~Pipe Coatings~~
~~IAPMO IS 20-2010e1~~	~~CPVC Solvent Cemented Hot and Cold Water Distribution Systems~~	~~Piping, Plastic~~

~~IAPMO PS 25-2002~~	~~Metallic Fittings for Joining Polyethylene Pipe for Water Service and Yard Piping~~	~~Joints~~
~~IAPMO PS 64-2012a^{e1}~~	~~Roof Pipe Flashings~~	~~Miscellaneous~~
~~IAPMO PS 72-2007^{e1}~~	~~Valves with Atmospheric Vacuum Breakers~~	~~Valves~~
~~IAPMO PS 117-2012a^{e1}~~	~~Press and Nail Connections~~	~~Fittings~~
~~IEEE 937-2007~~	~~Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems~~	~~Installation and Maintenance, Photovoltaic~~
~~IEEE 1013-2007~~	~~Sizing Lead-Acid Batteries for Stand-Alone Photovoltaic (PV) Systems~~	~~Photovoltaic, Sizing~~
~~IEEE 1361-2003*~~	~~Lead-Acid Batteries Used in Stand-Alone Photovoltaic (PV) Systems~~	~~Testing, Evaluation~~
~~IEEE 1526-2003*~~	~~Testing the Performance of Stand-Alone Photovoltaic Systems~~	~~Testing, Photovoltaic~~
~~IEEE 1547-2003~~	~~Interconnecting Distributed Resources with Electric Power Systems~~	~~Connections, Photovoltaic~~
~~IEEE 1562-2007~~	~~Array and Battery Sizing in Stand-Alone Photovoltaic (PV) Systems~~	~~Array, Battery, Photovoltaic~~
~~IEEE 1661-2007~~	~~Lead-Acid Batteries Used in Photovoltaic (PV) Hybrid Power Systems~~	~~Testing and Evaluation, Photovoltaic~~
~~MSS SP-58-2009*~~	~~Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation~~	~~Fuel Gas~~
~~MSS SP-80-2013~~	~~Bronze Gate, Globe, Angle, and Check Valves~~	~~Valves~~
~~NFPA 54/Z223.1-2012*~~	~~National Fuel Gas Code~~	~~Fuel Gas~~
NFPA 70-2014~~*~~	National Electrical Code	~~Electrical,~~ Miscellaneous
~~NFPA 96-2014*~~	~~Ventilation Control and Fire Protection of Commercial Cooking Operations~~	~~Commercial Cooking~~
~~NFPA 262-2011*~~	~~Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces~~	~~Certification~~
~~NFPA 274-2013*~~	~~Test Method to Evaluate Fire Performance Characteristics of Pipe Insulation~~	~~Pipe Insulation~~
~~NGWA-01-2014*~~	~~Water Well Construction Standard~~	~~Geothermal~~
~~NSF 14-2013*~~	~~Plastic Piping System Components and Related Materials~~	~~Piping, Plastic~~
~~NSF 60-2013*~~	~~Drinking Water Treatment Chemicals Health Effects~~	~~Backfill~~
NSF 61-2016~~3*~~	Drinking Water System Components – Health Effects	~~Water Supply Components Miscellaneous~~
NSF 358-1-2017	Polyethylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems	Piping, Fittings
NSF 358-2-2012	Polyethylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems	Piping, Fittings
NSF 358-3-2016	Cross-Linked Polyethylene (PEX) Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems	Piping, Fittings
~~SAE J512-1997~~	~~Automotive Tube Fittings~~	~~Fittings~~
~~SMACNA-2006*~~	~~HVAC Duct Construction Standards Metal and Flexible, 3rd edition~~	~~Ducts, Metal and Flexible~~

~~SRCC 100-2013~~	~~Solar Thermal Collectors~~	~~Collectors~~
~~SRCC 300-2013~~	~~Solar Water Heating Systems~~	~~Solar System~~
~~UL 174-2004*~~	~~Household Electric Storage Tank Water Heaters (with revisions through September 21, 2012)~~	~~Appliances~~
~~UL 181-2013*~~	~~Factory-Made Air Ducts and Air Connectors~~	~~Air Connectors, Air Ducts~~
~~UL 181A-2013*~~	~~Closure Systems for Use with Rigid Air Ducts~~	~~Air Ducts~~
~~UL 181B-2013*~~	~~Closure Systems for Use with Flexible Air Ducts and Air Connectors~~	~~Air Connectors, Air Ducts~~
~~UL 268A-2008*~~	~~Smoke Detectors for Duct Application (with revisions through September 25, 2009)~~	~~Smoke Detectors~~
~~UL 555-2006*~~	~~Fire Dampers (with revisions through November 5,~~	~~Dampers~~
~~UL 555S-1999*~~	~~Smoke Dampers (with revisions through October 9, 2013)~~	~~Dampers~~
UL 723-2008*	Test for Surface Burning Characteristics of Building Materials (with revisions through August 12, 2013)	Miscellaneous
UL 778-2016*	Motor-Operated Water Pumps (with revisions through May 23, 2014)	Pumps
UL 834-2004*	Heating, Water Supply, and Power Boilers – Electric (with revisions through December 9, 2013)	Appliances
~~UL 873-2007~~	~~Temperature-Indicating and -Regulating Equipment (with revisions through August 15, 2013)~~	~~Electrical~~
~~UL 916-2007~~	~~Energy Management Equipment (with revisions through December 19, 2013)~~	~~Electrical~~
~~UL 969-1995*~~	~~Marking and Labeling System (with revisions through November 24, 2008)~~	~~Marking, Labeling~~
UL 1279-2010	Outline of Investigation for Solar Collectors	Electrical
~~UL 1453-2004*~~	~~Electric Booster and Commercial Storage Tank Water Heaters (with revisions through July 15, 2011)~~	~~Appliances~~
~~UL 1703-2002*~~	~~Flat-Plate Photovoltaic Modules and Panels (with revisions through October 25, 2013)~~	~~Electrical~~
~~UL 1741-2010~~	~~Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources~~	~~Electrical~~
~~UL 1820-2004*~~	~~Fire Test of Pneumatic Tubing for Flame and Smoke Characteristics (with revisions through May 10, 2013)~~	~~Surface Burning Test, Pneumatic Tubing~~
~~UL 1887-2004*~~	~~Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics (with revisions through May 3, 2013)~~	~~Surface Burning Test, Fire Sprinkler Pipe~~
~~UL 2043-2013*~~	~~Fire Test for Heat and Visible Smoke Release for Discrete Products and their Accessories Installed in Air-Handling Spaces~~	~~Surface Burning Test, Discrete Products~~
UL 2523-2009*	Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters, and Boilers (with revisions through February 8, 2013)	Fuel Gas, Appliances
~~UL 4703-2010~~	~~Outline of Investigation for Photovoltaic Wire~~	~~Electrical~~

~~UL 6703-2011~~	~~Outline of Investigation for Connectors for Use in Photovoltaic Systems~~	~~Electrical~~
~~UL 8703-2011~~	~~Outline of Investigation for Concentrator Photovoltaic Modules and Assemblies~~	~~Electrical~~
~~UL 60730-1-2009*~~	~~Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements (with revisions through November 13, 2013)~~	~~Electrical~~
~~UL 555C-2006*~~	~~Ceiling Dampers (with revisions through May 4, 2010)~~	~~Dampers~~

~~* ANSI designated as an American National Standard.~~

~~**Notes:**~~

~~[1] Although this standard is referenced in Table S17, some of the pipe, tubing, fittings, or valves included in the standard are not acceptable for use under the provisions of this Appendix.~~

~~[2] See Section 605.1 for restrictions.~~

~~[3] Alloy C85200 for cleanout plugs.~~

~~[4] Standards for materials, equipment, joints and connections. Where more than one standard has been listed for the same material or method, the relevant portions of all such standards shall apply.~~

S 17.2 Standards, Publications, Practices, and Guides. The standards, publications, practices, and guides listed in Table S 17.2 are not referenced in other sections of this Appendix. The application of the referenced standards, publications, practices, and guides shall be in accordance with Section 301.3.

TABLE S 17.2

Standards, Publications, Practices, and Guides

DOCUMENT NUMBER	DOCUMENT TITLE	APPLICATION
ASHRAE 90.1-2013	Energy Standard for Buildings Except Low-Rise Residential Buildings	Energy
ASHRAE 93-2010 (RA2014)	Methods of Testing to Determine the Thermal Performance of Solar Collectors	Testing
ASHRAE 95-1981 (RA1987)	Methods of Testing to Determine the Thermal Performance of Solar Domestic Water Heating Systems	Testing
ASHRAE 96-1980 (RA1989)	Thermal Performance of Unglazed Flat-Plate Liquid-Type Solar Collectors	Testing, Collector
ASME A13.1-2015	Scheme for the Identification of Piping Systems	Piping
ASME B16.21-2016	Nonmetallic Flat Gaskets for Pipe Flanges	Joints
ASME B16.34-2013	Valves – Flanged, Threaded, and Welding End	Valves
ASME B16.47-2011	Large Diameter Steel Flanges: NPS 26 Through NPS 60 Metric/Inch	Fittings
ASME BPVC Section IV-2015	Rules for Construction of Heating Boilers	Miscellaneous

ASME BPVC Section IX-2015	Welding, Brazing, and Fusing Qualifications	Certification
ASSE 1010-2004	Water Hammer Arresters	Piping, Ferrous
ASTM A377-2003 (R2014)	Ductile-Iron Pressure Pipe	Piping, Ferrous
ASTM A733-2016	Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples	Piping, Ferrous
ASTM D56-2016a	Flash Point by the Tag Closed Cup Tester	Testing
ASTM D93-2016a	Flash Point by Pensky-Martens Closed Cup Tester	Testing
ASTM D635-2014	Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position	Testing
ASTM D2235-2004 (R2016)	Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings	Joints
ASTM D2672-2014	Joints for IPS PVC Pipe Using Solvent Cement	Joints
ASTM D2855-2015	Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings	Joints
ASTM D3278-1996 (R2011)	Flash Point of Liquids by Small Scale Closed-Cup Apparatus	Testing
ASTM E136-2016a	Behavior of Materials in a Vertical Tube Furnace at 750°C	Furnace
ASTM F480-2014	Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80	Piping, Plastic
ASTM F891-2016	Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core	Piping, Plastic
AWS B2.2/B2.2M-2016	Brazing Procedure and Performance Qualification	Certification
AWWA C507-2015	Ball Valves, 6 in. through 60 in. (150 mm through 1,500 mm)	Valves
BS EN 12975-1-2006 (R2010)	Thermal Solar Systems and Components – Solar Collectors – Part 1: General Requirements	Collector
BS EN 12975-2-2006	Thermal Solar Systems and Components – Solar Collectors – Part 2: Test Methods	Collector
BS EN 12976-1-2017	Thermal Solar Systems and Components – Factory Made Systems – Part 1: General Requirements	Solar System
BS EN 12976-2-2017	Thermal Solar Systems and Components – Factory Made Systems – Part 2: Test Methods	Solar System
BS EN ISO 9488-2000	Solar Energy – Vocabulary	Miscellaneous
CSA Z21.22-2015	Relief Valves for Hot Water Supply Systems (same as CSA 4.4)	Valves
CSA Z21.24-2015	Connectors for Gas Appliances (same as CSA 6.10)	Fuel Gas
IAPMO PS-117-2016	Press and Nail Connections	Fittings
ICC 900/SRCC 300-2015	Solar Thermal System Standard	Solar System
IEEE 937-2007	Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems	Installation and Maintenance, Photovoltaic
IEEE 1013-2007	Sizing Lead-Acid Batteries for Stand-Alone Photovoltaic (PV) Systems	Photovoltaic, Sizing

IEEE 1361-2014	Lead-Acid Batteries Used in Stand-Alone Photovoltaic (PV) Systems	Testing, Evaluation
IEEE 1526-2003	Testing the Performance of Stand-Alone Photovoltaic Systems	Testing, Photovoltaic
IEEE 1547-2003	Interconnecting Distributed Resources with Electric Power Systems	Connections, Photovoltaic
IEEE 1562-2007	Array and Battery Sizing in Stand-Alone Photovoltaic (PV) Systems	Array, Battery, Photovoltaic
IEEE 1661-2007	Lead-Acid Batteries Used in Photovoltaic (PV) Hybrid Power Systems	Testing and Evaluation, Photovoltaic
MSS SP-58-2009	Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation	Fuel Gas
MSS SP-80-2013	Bronze Gate, Globe, Angle, and Check Valves	Valves
NFPA 54/Z223.1-2015	National Fuel Gas Code	Fuel Gas
NFPA 274-2013	Test Method to Evaluate Fire Performance Characteristics of Pipe Insulation	Pipe Insulation
NSF 14-2016a	Plastic Piping System Components and Related Materials	Piping, Plastic
UL 174-2004	Household Electric Storage Tank Water Heaters (with revisions through December 15, 2016)	Appliances
UL 873-2007	Temperature-Indicating and -Regulating Equipment (with revisions through February 6, 2015)	Electrical
UL 916-2015	Energy Management Equipment	Electrical
UL 1453-2016	Electric Booster and Commercial Storage Tank Water Heaters (with revisions through March 9, 2017)	Appliances
UL 4703-2014	Photovoltaic Wire	Electrical
UL 6703-2014	Outline of Investigation for Connectors for Use in Photovoltaic Systems (with revisions through March 2, 2017)	Electrical
UL 8703-2011	Outline of Investigation for Concentrator Photovoltaic Modules and Assemblies	Electrical
UL 60730-1 2016	Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements	Electrical

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SECTION 31. The provisions of this ordinance contain various changes, modifications, and additions to the 2019 Edition of the California Plumbing Code. Some of these changes are administrative in nature in that they do not constitute changes or

modifications to requirements contained in the building standards published in the California Building Standards Code.

Pursuant to California Health and Safety Code sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code contained in this ordinance that are not administrative in nature are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles as more particularly described in the table set forth below.

PLUMBING CODE AMENDMENTS

CODE SECTION	CONDITION	EXPLANATION
Section 304.1	Geological Topographical Climatic	The County of Los Angeles is a densely populated area with buildings constructed within a region where water is scarce and domestic water service is impacted by immoderate and varying weather conditions, including periods of extended drought. The proposed measures will require buildings to be more water efficient and allow greater conservation of domestic water due to these local conditions.
Sections 601.2 601.2.1.1 and 601.2.2	Geological Topographical Climatic	The County of Los Angeles is a densely populated area with buildings constructed within a region where water is scarce and domestic water service is impacted by immoderate and varying weather conditions, including periods of extended drought. The proposed measures will require buildings to be more water efficient and allow greater conservation of domestic water due to these local conditions.

CODE SECTION	CONDITION	EXPLANATION
Section 721.3	Geological Topographical	To allow for the proper operation of existing Los Angeles County sewer infrastructure and establish consistency with Title 20 – Utilities – of the Los Angeles County Code, Division 2 (Sanitary Sewers and Industrial Waste) due to local soil conditions and topography.
Sections 728.1 to 728.6	Geological Topographical	To allow for the proper operation of existing Los Angeles County sewer infrastructure and establish consistency with Title 20 – Utilities – of the Los Angeles County Code, Division 2 (Sanitary Sewers and Industrial Waste) due to local soil conditions and topography.
Table H 101.8	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions and to provide protections for native, protected oak trees that are consistent with Title 22 – Zoning and Planning – of the Los Angeles County Code, Chapter 22.174 (Oak Tree Permits).
Table H 201.1(1)	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions, sewer capacity, and sewage treatment.
Table H 201.1(2)	Geological Topographical	To establish consistency with requirements of the County Health Department for sewer capacity and sewage treatment due to local soil conditions.
Table H 201.1(3)	Geological Topographical	To establish consistency with requirements of the County Health Department for sewer capacity and sewage treatment due to local soil conditions.
Table H 201.1(4)	Geological Topographical	To establish consistency with requirements of the County Health Department for sewer capacity and sewage treatment due to local soil conditions.
Section H 301.1	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.

CODE SECTION	CONDITION	EXPLANATION
Section H 401.3	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
Section H 601.5	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
Section H 601.8	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
Section H 701.2	Geological Topographical	To establish more restrictive requirements for protection of local groundwater due to local soil conditions.
Section H 1001.1	Geological	To establish more restrictive requirements to prevent earth movement based on local soil and seismic conditions.
Section H 1101.6	Geological	To establish more restrictive requirements to prevent earth movement based on local soil and seismic conditions.
Section M 10.0	Geological Topographical Climatic	To establish more restrictive requirements to prevent earth movement based on local soil and seismic conditions.

SECTION 32. This ordinance shall become operative on January 1, 2020.

[TITLE28BUILDINGCODE2019CSCC]

SECTION 33 This ordinance shall be published in The Daily Commerce a newspaper printed and published in the County of Los Angeles.

Janice Hahn
Chair

ATTEST:

Celia Zavala
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that at its meeting of November 26, 2019 the foregoing ordinance was adopted by the Board of Supervisors of said County of Los Angeles by the following vote, to wit:

	Ayes		Noes
Supervisors	Hilda Solis	Supervisors	None
	Mark Ridley-Thomas		
	Sheila Kuehl		
	Janice Hahn		
	Kathryn Barger		

Effective Date: December 26, 2019

Operative Date: January 1, 2020

Celia Zavala
Executive Officer -
Clerk of the Board of Supervisors
County of Los Angeles

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this document has been made.

CELIA ZAVALA
Executive Officer
Clerk of the Board of Supervisors

By _____ Deputy

APPROVED AS TO FORM:
MARY C. WICKHAM
County Counsel

By _____
Lester J. Tolnai
Chief Deputy County Counsel

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