

## ORDINANCE NO. 2022-xx

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COSTA MESA, CALIFORNIA, AMENDING TITLE 5 AND TITLE 7 OF THE COSTA MESA MUNICIPAL CODE BY ADOPTING THE 2022 EDITIONS OF THE CALIFORNIA BUILDING STANDARDS CODE AND RELATED MODEL CODES WITH APPENDICES AND AMENDMENTS THERETO, AND REPEALING THE ADOPTION OF THE 2019 EDITIONS OF THE CALIFORNIA CODES AND AMENDMENTS THERETO, WITH THE EFFECTIVE DATE OF JANUARY 1, 2023

THE CITY COUNCIL OF THE CITY OF COSTA MESA, CALIFORNIA DOES HEREBY FIND AND DECLARE AS FOLLOWS:

### TITLE 5 BUILDINGS AND STRUCTURES

The following sections of Title 5 of the Costa Mesa Municipal Code are hereby amended to read as follows:

#### 5-1 Construction Codes Adopted.

For the purpose of prescribing regulations for erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment use, height, and area of buildings and structures, the following construction codes subject to the modifications set forth in this ~~e~~C~~h~~apter, are hereby adopted: the California Building Code, ~~2019-2022~~ Edition, based on the ~~2019-2021~~ International Building Code as published by the International Code Council, including Chapter 1, Division II; the California Residential Code, ~~2019-2022~~ Edition, ~~including Appendix H Patio Covers and Appendix V Swimming Pool Safety Act~~ based on the ~~2019-2021~~ International Residential Code, ~~as published by the International Code Council , including Chapter 1, Division II; including Appendix AX Swimming Pool Safety Act; the 2022 California Fire Code based on the 2021 International Fire Code , as published by the International Code Council, including Chapter 1, Division II;~~ the ~~2022~~ California Green Building Standards Code, ~~2019~~ Edition; ~~the 2022 Existing Building Code, based on the 2021 International Existing Building Code, the 2021 International Swimming Pool & Spa Code. T~~he California Plumbing Code, ~~2019-2022~~ Edition, based on the ~~2018-2021~~ Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials; the

California Mechanical Code, ~~2019-2022~~ Edition, based on the ~~2018-Uniform-2021 International~~ Mechanical Code as published by the International Association of Plumbing and Mechanical Officials; the California Electrical Code, ~~2019-2022~~ Edition, based on the ~~2017-2020~~ National Electrical Code as published by the National Fire Protection Association; the International Property Maintenance Code, ~~2018-2021~~ Edition, as published by the International Code Council; the Uniform Code for the Abatement of Dangerous Buildings, ~~1997-2021~~ Edition, as published by the International Code Council. For the purpose of prescribing regulations for grading and excavations, the most current Orange County Grading and Excavation Code including all the yearly supplements is hereby adopted. The provisions of these ~~e~~C~~o~~nstruction ~~e~~C~~o~~des as amended by this chapter shall constitute the Building Regulations of the City of Costa Mesa. Where the California Code of Regulations and State Building Standards Code of Regulations differ from any sections of the ~~e~~C~~o~~nstruction ~~e~~C~~o~~des, State regulations shall prevail over the ~~e~~C~~o~~nstruction ~~e~~C~~o~~des.

One (1) copy of all the above codes and standards therefore are on file in the office of the building official pursuant to Health and Safety Code section 18942(d)(1) and are made available for public inspection.

Notwithstanding the provisions of the above-referenced construction codes, all fees for services provided pursuant to the construction codes shall not take effect until a resolution for such fees is adopted by the City Council pursuant to California Government Code sections 66016 and 66020. ~~(Code 1960, § 8100; Ord. No. 62-4, 3-5-62; Ord. No. 65-20, 7-19-65; Ord. No. 68-44, 12-2-68; Ord. No. 68-45, 12-2-68; Ord. No. 71-14, § 2, 6-21-71; Ord. No. 75-3, § 2, 1-4-75; Ord. No. 82-13, § 2(1), 9-7-82; Ord. No. 87-22, § 2(1), 11-2-87; Ord. No. 92-22, § 1, 12-21-92; Ord. No. 95-22, § 2, 1-2-96; Ord. No. 99-6, § 1, 6-7-99; Ord. No. 07-18, § 1, 10-16-07; Ord. No. 10-10, § 1, 9-21-10; Ord. No. 13-06, § 1, 11-19-13; Ord. No. 16-14, § 1, 12-6-16; Ord. No. 19-18, § 1, 11-19-19~~

#### **5-1.1 Amendments to the 2022 California Building Code.**

The following amendments to the California Building Code shall apply in the City:

a) Administration. Division II of Chapter 1, entitled "Scope and Administration", is

Applicable in the City.~~Amend item number 2 under “Building” in section 105.2, Work exempt from permit, as follows:~~

~~2. Fences less than 30 inches in height above grade.~~

~~4. Retaining walls that are less than 30 inches in height above grade measured to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.~~

b) Revision. Insert City of Costa Mesa into the text as the name of jurisdiction in

Section 101.1. Section 105.5 is amended as follows:

c) Section 101.4 is deleted in its entirety (including sections 101.4.1, 101.4.2, 101.4.3, 101.4.4, 101.4.5, 101.4.6 and 101.4.7), and replaced with the following:

“101.4. Referenced Codes. The California Codes listed in Section 5-1 of this Ordinance shall be considered part of the requirements of this code to the extent of each such reference.”

d) Section 105.2 is revised by amending exception 2, 9, and adding 14 as follows:

2. Wood, Steel, Vinyl, or Iron fences not over 6 feet in height. Stucco, concrete, and masonry brick fences not over 3 feet high.

9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 18 inches (457.2 mm) deep, do not exceed 5,000 gallons (18,927.059L) and are installed entirely above ground.

14. Decks not exceeding 200 square feet (18.58 m<sup>2</sup>) in area, that are not more than 30 inches (762 mm) above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.2.

e) Board of Appeals. Section 113.3 is amended to provide as follows:

Board of Appeals when used in the Building Standards Codes shall mean the City Planning Commision Council {or Planning Commission}. The Board of Appeals is hereby established for each of the Building Standards Codes. Depending on the subject of the appeal, specialized expertise may be solicited for the purpose of providing input to the Appeals Board.

f) Table 1505.1 is amended, by the deletion of Table 1505.1 and the addition of a new Table 1505.1 thereto, to read as follows

~~**105.5 Expiration.** Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.~~

~~Time limitation for permit expiration as the result of code enforcement shall be as per notice of violation or as otherwise determined by the Building Official.~~

~~(c) Add section 903.0 Automatic Sprinkler Systems:~~

~~Automatic sprinkler systems shall comply with this chapter and Chapters 9 and 80 of the amended Fire Code. Where conflicts occur the amended Fire Code shall govern.~~

**TABLE 1505.1 <sup>a</sup>  
MINIMUM ROOF COVERING CLASSIFICATIONS  
TYPES OF CONSTRUCTION**

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>.

a. Unless otherwise required in accordance with Chapter 7A.

~~(e) Section 1505.5 is amended, by the deletion of the entire section.~~

~~(f) — Section 1505.7 is amended, by the deletion of the entire section.~~

~~(g) — Add section 3109 and amend section 3109.4.4.1 by adding the following definition:~~

~~(d) — **1505.1.23 Roof coverings within all other areas.** The entire roof covering of every existing structure where more than fifty ~~(50)~~ percent of the total roof area is replaced within any one ~~—(1)~~-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.~~

~~Section 1505.4 is amended, by the deletion of the entire section.~~

~~Section 1505.5 is amended, by the deletion of the entire section.~~

~~Section 1807.1.6 is amended to read as follows:~~

~~**1807.1.6 Prescriptive design of concrete and masonry foundation walls.** Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.~~

~~(e) — Section 1505.5 is amended, by the deletion of the entire section.~~

~~(f) — Section 1505.7 is amended, by the deletion of the entire section.~~

~~(g) — Add section 3109 and amend section 3109.4.4.1 by adding the following definition:~~

~~**PRIVATE POOL**, is any constructed pool, permanent or portable, and over 18 inches deep which is intended for non-commercial use as swimming pool by not more than three owner families and their guests.~~

~~(h) — Section 3109.2 is amended as follows:~~

~~**3109.2 Construction permit; safety features required.** New or remodel pools or spas, at a private single-family home, shall have an enclosure complying with the amended California Residential Code Appendix V.~~

~~(Ord. No. 07-18, § 2, 10-16-07; Ord. No. 10-10, § 2, 9-21-10; Ord. No. 11-4, § 1, 3-15-11; Ord. No. 13-06, § 2, 11-19-13; Ord. No. 16-14, § 2, 12-6-16; Ord. No. 19-18, § 2, 11-19-19)~~

### **5-1.3. Amendments to the 2019 California Residential Code.**

(a) Amend item number 2 ~~under “Building”~~ in section R105.2, Work exempt from permit, as follows:

2. Wood, Steel, Vinyl, or Iron fences not over 6 feet in height. Stucco, concrete, and masonry brick fences not over 3 feet high. ~~Fences less than 30 inches in height above grade.~~

4. ~~Retaining walls that are less than 30 inches in height above grade measured to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.~~

~~(b) Section 105.5 is amended as follows:~~

~~**105.5 Expiration.** Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.~~

~~Time limitation for permit expiration as the result of code enforcement shall be as per notice of violation or as otherwise determined by the Building Official.~~

~~(b) Amend t~~Table R301.2(1), is revised to read as follows:

**TABLE R301.2(1)**  
**CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>i</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>e</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
	Speed <sup>d</sup> (mph)	Topographic effects <sup>k</sup>	Special wind region <sup>l</sup>	Wind- borne debris zone <sup>m</sup>		Weathering <sup>a</sup>	Frost line depth <sup>b</sup>	Termite <sup>c</sup>					
Zero	110	No	No	No	D <sub>2</sub>	Negligible	12" to 24"	Very Heavy	43	No	See Footnote g	0	60

**TABLE R301.2**  
**CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>f</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>e</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
	Speed <sup>d</sup> (mph)	Topographic effects <sup>k</sup>	Special wind region <sup>l</sup>	Wind- borne debris zone <sup>m</sup>		Weathering <sup>a</sup>	Frost line Depth <sup>b</sup>	Termite <sup>c</sup>					
ZERO	95	No	No	No	D <sup>2</sup> or E	Negligible	No	Very Heavy	43	No	No	0	60

**MANUAL J DESIGN CRITERIA <sup>n</sup>**

ELEVATION	LATITUDE	WINTER HEATING	SUMMER COOLING	ALTITUDE CORRECTION FACTOR	INDOOR DESIGN TEMPERATURE	DESIGN TEMPERATURE COOLING	HEAT TEMPERATURE DIFFERENCE
98	34	37	91		70	75	
COOLING TEMPERATURE DIFFERENCE	WIND VELOCITY HEATING	WIND VELOCITY COOLING	COINCIDENT WET BULB	DAILY RANGE	WINTER HUMIDITY	SUMMER HUMIDITY	
7			69	27		7 (50% RH)	

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- ~~Where w~~Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code the frost line depth strength required for weathering shall govern. The weathering column shall be filled in with the weathering index, ~~(i.e.,~~ "negligible," "moderate" or "severe") for concrete as determined from ~~the Weathering Probability Map~~ [Figure R301.2(13)]. The grade of masonry units shall be determined from ASTM C-34, ASTM C-55, ASTM C-62, ASTM C-73, ASTM C-90, ASTM C-129, ASTM C-145, ASTM C-216 or ASTM C-652.
- ~~Where t~~The frost line depth may require deeper footings than indicated in Figure R403.1(1) the frost line depth strength required for weathering shall govern. The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(24)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- ~~The jurisdiction shall fill in this section of the table to establish the design criteria using Table 10A from ACCA Manual J or established criteria determined by the jurisdiction. The outdoor design dry bulb temperature shall be selected from the columns of 97 1/2 percent values for winter from Appendix D of the California Plumbing Code. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.~~
- The jurisdiction shall fill in this part of the table with the seismic design category determined from section R301.2.2.1.

- g. ~~The jurisdiction shall fill in this part of the table with: the date of the jurisdiction's entry into the National Flood Insurance Program ( date of adoption of the first code or ordinance for management of floodhazard areas); and the title and date of the currently effective Flood Insurance Study or other flood hazard study and maps adopted by the authority having jurisdiction, as amended. The City of \_\_\_\_\_ does not have any Flood Hazards Zones. (OR, if yes) See City's FIRM maps for Flood Hazard Locations.~~
- h. In accordance with ~~S~~sections R905.1.22-7.4, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 ~~percent~~%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°F)" ~~at www.ncdc.noaa.gov/fpsf.html.~~
- j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" ~~at www.ncdc.noaa.gov/fpsf.html.~~
- k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- l. In accordance with Figure R301.2(24)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table. ~~—~~
- m. In accordance with Section R301.2.1.2-4, the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- n. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b from ACCA Manual J or established criteria determined by the jurisdiction.
- o. The jurisdiction shall fill in this section of the table using the Ground Snow Loads in Figure ~~S~~ R301.2(36) ~~and R301.2(4).~~

~~(d) Add Section R313.0. Automatic Fire Systems as follows:~~

~~Fire sprinklers shall be as required in this code and Chapters 9 and 80 of the amended Fire Code. Where there are conflicts the Fire Code shall govern.~~

~~(ce) Amend Section R902.1 is amended by revising it to allow only class A or B roofs Roofing covering materials as follows:~~

**R902.1 Roofing covering materials.** Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A or B roofing shall be installed in areas designated by this section. Class A or B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

#### **Exceptions:**

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.



2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

3. Class A roof assemblies include minimum 16 oz/ft<sup>2</sup> copper sheets installed over combustible decks.

(df) Section Amend R902.1.3 is amended by revising it to require a minimum Class B Roof coverings within all other areas as follows:

**R902.1.2 Roof coverings within all other areas.** The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

(g) Section Amend R902.2, first paragraph is amended by revising it to allow only class A or B treated wood roofs ~~Fire-retardant-treated shingles and shakes~~ as follows:

**R902.2 Fire-retardant-treated shingles and shakes.** Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A or B roofs.

Fire-retardant-treated wood shakes and shingles shall comply with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code section 13132.7(j). Each bundle shall bear labels from an ICBO accredited quality control agency identifying their roof-covering classification and indicating their compliance with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code section 13132.7(j).

Health and Safety Code section 13132.7(j) No wood roof covering materials shall be sold or applied in this state unless both of the following conditions are met:

(1) The materials have been approved and listed by the State Fire Marshal as complying with the requirements of this section.

(2) The materials have passed at least five years of the 10-year natural weathering test. The 10-year natural weathering test required by this subdivision shall be conducted in accordance with Standard 15-2 of the 1994 Edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal.

~~(e) Appendix V, amend section AV100.2(a) as follows:~~

~~Except as provided in Section AV100.5, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single family home, the respective swimming pool or spa shall be equipped with item #1 below AND at least one additional following seven drowning prevention features:~~

~~(f) Appendix V, amend section AV100.2(a) #1 as follows:~~

~~1. An enclosure that meets the requirements of AV100.3 and isolates the swimming pool and spa from the private single family home. Any walls of the residential structure or accessory structures used to complete the isolation enclosure must have door openings equipped with protection as required in AV100.2 (a) #4 or #5. Any such door protection device provided for this purpose may not be used to comply with the second drowning prevention feature requirement.~~

~~(Ord. No. 10-10, § 3, 9-21-10; Ord. No. 11-4, § 1, 3-15-11; Ord. No. 13-06, § 3, 11-19-13; Ord. No. 16-14, § 3, 12-6-16; Ord. No. 17-03, § 2, 2-7-17; Ord. No. 19-18, § 3, 11-19-19)~~

## **TITLE 7 FIRE PROTECTION AND PREVENTION**

The following sections of Title 7 of the Costa Mesa Municipal Code are hereby amended to read as follows:

### **Chapter II. – FIRE PREVENTION**

#### **Sec. 7-14. Adoption of the California Fire Code.**

California Fire Code Adopted with Modifications. The California Fire Code, 2022 Edition, is hereby adopted with modifications. Other modifications are made as hereinafter set forth in this Title of the Costa Mesa Municipal Code and appropriate findings have been

made and filed where required. The California Fire Code, which is based on the International Fire Code, is adopted as noted above and a copy is on file in the office of the City Clerk. This document shall be known and referred to hereafter as the "Fire Code" for the City of Costa Mesa.

## **Sec. 7-15 Amendments to the 2022 California Fire Code**

### **Chapter 1 Scope and Administration**

**Chapter 1 Scope and Administration** is adopted in its entirety except that Section 105.6.1.1 is added; Sections 105.5.18 (10), 105.5.18 (11), and 112.4 are included with the following amendments:

**Section 105.5.18 Flammable and combustible liquids** is hereby amended as follows:

**105.5.18 Flammable and combustible liquids.** An operational permit is required:

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4, ~~or to engage in on-demand mobile fueling operations in accordance with Section 5707.~~

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4, ~~or, where required by the fire code official, to utilize a site for on-demand mobile fueling~~

**Section 105.6.1.1 Private Fire Underground System** is hereby added as follows:

**105.6.1.1 Private Fire Underground System.** A separate construction permit is required for the installation or modification of private fire underground system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

**Section 112.4 Violation penalties** is hereby amended as follows:

**112.4 Violation penalties.** Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor ~~[SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment as provided in Section 1-33 of the Costa Mesa Municipal Code. Each day that a violation continues after due notice has been served shall be deemed a separate offense.~~

## Chapter 2 Definitions

**Chapter 2 Definitions** is adopted in its entirety without amendment:

## Chapter 3 General Requirements

**Chapter 3 General Requirements.** Adopt Chapter 3 in its entirety except that Sections 308.1.4, 311.5 through 311.5.5, and 318 is excluded; and with the following amendments:

**Section 305.6 Hazardous Conditions** is hereby added as follows:

**305.6 Hazardous conditions.** Outdoor fires burning wood or other solid fuel are not allowed when any of the following conditions applies:

1. When predicted sustained winds exceed 8 MPH and relative humidity is less than 25%, or a red flag condition has been declared when an official sign was caused to be posted by the fire code official, or a public announcement is made.
2. No outdoor fires using any fuel type are permitted when predicted sustained winds exceed 20 MPH or when such fires present a hazard as determined by the fire code official.

**Section 305.7 Disposal of rubbish** is hereby added as follows:

**305.7 Disposal of rubbish.** Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

**Section 307 Open Burning, Recreational Fires and Portable Outdoor Fireplaces** is hereby amended as follows:

**307 Open Burning, Recreational Fires, Fire Pits, Fire Rings, and Portable Outdoor Fireplaces**

**Sections 307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies** is hereby added as follows:

**307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies.** Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R occupancies shall comply with this section.

**Exception:** Barbeques, grills, and other portable devices intended solely for cooking.

**Section 307.6.1 Gas-fueled devices** is hereby added as follows:

**307.6.1 Gas-fueled devices.** Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the Building Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At R-3 occupancies, combustible construction and vegetation shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At other R occupancies, the minimum distance shall be ten feet. Where a permanent Building Department approved hood and vent is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester as defined in Section 202.

**Section 307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas** is hereby added as follows:

**307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas.** Permanent outdoor fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code with clearance from combustible construction and building openings as required therein. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks.

The burning of wood or other solid fuel in a device is not allowed within 25 feet of combustible structures unless within an approved permanent fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be in accordance with Sections 305, 307, and 308.

**Exceptions:**

1. Portable fireplaces and fire rings/pits equipped with a device to arrest sparks shall be located at least 3' from combustible construction at R-3 occupancies.
2. Portable fireplaces, and fire pits/rings equipped with a device to arrest sparks, shall be located at least 15 feet from combustible structures at other R occupancies.

**Section 308.1.6.3 Sky lanterns** is hereby amended as follows:

**308.1.6.3 Sky lanterns.** A person shall not ignite, release, or cause to be released a sky lantern.

## Chapter 4 Emergency Planning and Preparedness

**Chapter 4: Emergency Planning and Preparedness.** Adopt only the sections, subsections listed below:

401 – 401.9  
402  
403.1  
403.2  
403.4 – 403.4.4  
403.9.2.1.1  
403.12 – 403.12.3  
404.5 – 404.6.6  
407

## Chapter 5 Fire Service Features

**Chapter 5 Fire Service Features** is adopted in its entirety with the following amendments:

**Section 503.2 Specifications.** is amended as follows:

**503.2 Specifications.** Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8- and the Costa Mesa Fire & Rescue Department Plan Submittal Checklist Specifications.

**Section 510.1 Emergency responder radio coverage** in new buildings is amended as follows:

**510.1 Emergency responder radio coverage in new buildings.** Approved in-building, two-way emergency responder communication coverage for emergency responders shall be provided in all new buildings. In-building, two-way emergency responder communication coverage within the building shall be based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems. The Emergency Responder Radio Coverage System shall comply with the Orange County Sheriff's Department, Communications and Technology Division guidelines and specifications and, where the functionality or performance requirements in the California Fire Code are more stringent, this code.

**Exceptions:**

1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved radio coverage system.

2. Where it is determined by the fire code official that the radio coverage system is not needed.

3. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.

## **Chapter 6 Building Services and Systems**

**Chapter 6 Building Services and Systems** is adopted in its entirety without amendment:

## **Chapter 7 Fire and Smoke Protection Features**

**Chapter 7 Fire and Smoke Protection Features** is adopted in its entirety without amendment.

## **Chapter 8 Interior Finish, Decorative Materials and Furnishings**

**Chapter 8 Interior Finish, Decorative Materials and Furnishings** is adopted in its entirety without amendment.

## **Chapter 9 Fire Protection and Life Safety Systems**

**Chapter 9 Fire Protection and Life Safety Systems** is adopted in its entirety with the following amendments:

**Section 901.11 False Alarms** is hereby added as follows:

**901.11 False Alarms.** False alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

(a) The owner and any person in possession of any building shall be assessed a fee to be set by resolution whenever the Fire Department is required to respond to more than two false alarms during a one-year period consisting of January 1- December 31 of any given year. Continued false alarms generated from the same location within the same one-year period shall also be assessed a fee set by resolution for each successive false alarm.

(b)Notwithstanding Subsection (a), whenever the Fire Department is required to respond to a false alarm while the system is being repaired or otherwise modified, and the person performing the work has failed to notify the Fire Department in advance that such work

was being done, the persons performing the work shall also be assessed a fee set by resolution for each such occurrence.

(c) For purposes of this Section, "false alarm" shall mean the activation of any local or central station alarm because of malfunction, including, but not limited to, mechanical or electrical defects, water surges, or because of improper installation, operation testing or maintenance of such system. Whenever the Fire Department responds to the location of a false alarm and finds that there is no evidence of a fire or of external causes beyond the control of the owner or person in possession that may have caused the alarm, the activation shall be presumed to be a false alarm. Not included as a false alarm will be those activations caused by earthquakes or other phenomena beyond the control of the owner or person in possession.

(d) Whenever an owner, person in possession or alarm system workman is notified of such assessment and believes that he should be excused from paying because any occurrences did not constitute a false alarm, as defined above, he or she shall have the right to appeal said assessment to the Fire Chief within ten (10) calendar days of his receipt of the notice of assessment. The Fire Chief is authorized to excuse the assessment if he determines that a false alarm as defined, did not occur.

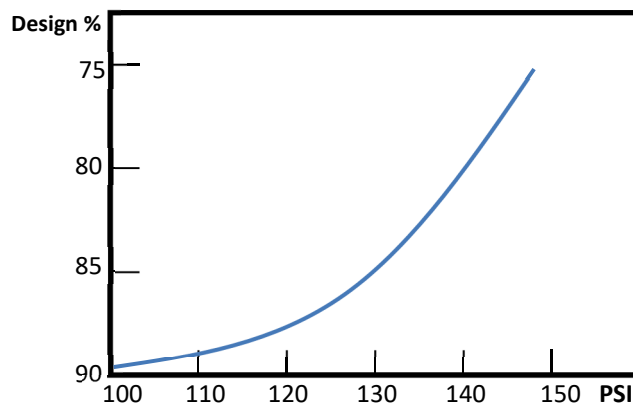
(e) Any person, firm or corporation who receives notification of penalties due and fails to pay such penalties within the specified amount of time, no less than 30 days, a 10 percent per month late fee will be assessed until penalties have been paid.

**Section 903.3.5.3 Hydraulically calculated systems** is hereby added as follows:

**903.3.5.3 Hydraulically calculated systems.** The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity.

**Exception:** When static pressure exceeds 100 psi, and when required by the fire code official, the fire sprinkler system shall not exceed the water supply capacity specified by Table 903.3.5.3.

**TABLE 903.3.5.3**  
**Hydraulically Calculated Systems**





## **Section 912 Fire Department Connections**

**Section 912.2 Location** is amended as follows:

**912.2 Location.** With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. ~~The location of the fire department connections shall be approved by the fire code official. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of 2½" inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red or as approved. When the fire sprinkler density design requires more than 500 gpm (including inside hose stream demand), or a standpipe system is included, four 2½" inlets shall be provided.~~

### **Chapter 10 Means of Egress**

**Chapter 10 Means of Egress** is adopted in its entirety without amendment.

### **Chapter 11 Construction Requirements for Existing Buildings**

**Chapter 11 Construction Requirements for Existing Buildings.** Adopt only those sections and subsections listed below:

1103.3.3  
1103.7  
1103.7.3  
1103.7.3.1  
1103.7.8 – 1103.7.8.2  
1103.7.9 – 1103.7.9.10  
1103.8 – 1103.8.5.3  
1103.9.1  
1107  
1113  
1114  
1115  
1116

### **Chapter 12 Energy Systems**

**Chapter 12 Energy Systems** is adopted in its entirety with the following amendments:

**Section 1207.4.1 Electrical disconnects** is amended as follows:

**1207.4.1 Electrical disconnects.** ~~Where the ESS disconnecting means is not within sight of the main electrical service disconnecting means, placards or directories shall be installed at the location of the main electrical service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with the California Electrical Code. The ESS disconnecting means shall be within 36-inches of the main electrical service disconnecting means. The ESS disconnecting means shall be labeled "ESS Emergency Stop".~~

**Exception:** Electrical disconnects for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC shall be permitted to have electrical disconnects signage in accordance with NFPA 76.

**Section 1207.11.5.1 ESS Electrical disconnect in Group R-3 and R-4 occupancies** is hereby added as follows:

**1207.11.5.1 ESS Electrical disconnect in Group R-3 and R-4 occupancies.** The ESS disconnecting means shall be provided within 36-inches of the main electrical service disconnecting means. The ESS disconnecting means shall be labeled "ESS Emergency Stop".

## **Chapter 20 Aviation Facilities**

**Chapter 20 Aviation Facilities** is adopted in its entirety without amendment.

## **Chapter 21 Dry Cleaning**

**Chapter 21 Dry Cleaning** is adopted in its entirety without amendment.

## **Chapter 22 Combustible Dust-Producing Operations**

**Chapter 22 Combustible Dust-Producing Operations** is adopted in its entirety without amendment.

## **Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages**

**Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages** is adopted in its entirety without amendment.

## **Chapter 24**

## **Flammable Finishes**

**Chapter 24 Flammable Finishes** is adopted in its entirety without amendment.

## **Chapter 25 Fruit and Crop Ripening**

**Chapter 25 Fruit and Crop Ripening** is deleted in its entirety.

## **Chapter 26 Fumigation and Insecticidal Fogging**

**Chapter 26 Fumigation and Insecticidal Fogging** is deleted in its entirety.

## **Chapter 27 Semiconductor Fabrication Facilities**

**Chapter 27 Semiconductor Fabrication Facilities** is adopted in its entirety without amendment.

## **Chapter 28 Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities**

**Chapter 28 Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities** is adopted in its entirety without amendment.

## **Chapter 29 Manufacture of Organic Coatings**

**Chapter 29 Manufacture of Organic Coatings** is adopted in its entirety without amendment.

## **Chapter 30 Industrial Ovens**

**Chapter 30 Industrial Ovens** is adopted in its entirety without amendment.

## **Chapter 31 Tents, Temporary Special Event Structures and Other Membrane Structures**

**Chapter 31 Temporary Special Event Structures and Other Membrane Structures** is adopted in its entirety with the following amendment:

**Section 3103.9 Structural stability and anchorage required** is hereby amended as follows:

**3103.9 Structural stability and anchorage required.** Tents or membrane structures and their appurtenances shall be designed and installed to withstand the elements of weather and prevent collapsing. Documentation of structural stability shall be furnished to the fire code official. Anchorage shall be installed to meet or exceed the Costa Mesa Fire & Rescue Tent Guideline.

## **Chapter 32 High-Piled Combustible Storage**

**Chapter 32 High-Piled Combustible Storage** is adopted in its entirety without amendment.

## **Chapter 33 Fire Safety During Construction and Demolition**

**Chapter 33 Fire Safety During Construction and Demolition** is adopted in its entirety without amendment.

## **Chapter 34 Tire Rebuilding and Tire Storage**

**Chapter 34 Tire Rebuilding and Tire Storage** is adopted in its entirety without amendment.

## **Chapter 35 Welding and Other Hot Work**

**Chapter 35 Welding and Other Hot Work** is adopted in its entirety without amendment.

## **Chapter 36 Marinas**

**Chapter 36 Marinas** is adopted in its entirety without amendment.

## **Chapter 37 Combustible Fibers**

**Chapter 37 Combustible Fibers** is adopted in its entirety without amendment.

## **Chapter 39 Processing and Extraction Facilities**

**Chapter 39 Processing and Extraction Facilities** is adopted in its entirety without amendment.

**Chapter 40  
Storage of Distilled Spirits and Wines**

**Chapter 40 Storage of Distilled Spirits and Wines** is adopted in its entirety without amendment.

**Chapter 48  
Motion Picture and Television Production Studio Sound Stages, Approved  
Production Facilities and Production Locations**

**Chapter 48 Motion Picture and Television Production Studio Sound Stages, Approved Production Facilities and Production Locations** is adopted in its entirety without amendment.

**Chapter 49  
Requirements for Wildland-Urban Interface Fire Areas**

**Chapter 49 Requirements for Wildland-Urban Interface Fire Areas** is adopted in its entirety without amendment.

**Chapter 50  
Hazardous Materials – General Provisions**

**Chapter 50 Hazardous Materials – General Provisions** is adopted in its entirety without amendment.

**Chapter 51  
Aerosols**

**Chapter 51 Aerosols** is adopted in its entirety without amendment.

**Chapter 53  
Compressed Gases**

**Chapter 53 Compressed Gases** is adopted in its entirety without amendment.

**Chapter 54  
Corrosive Materials**

**Chapter 54 Corrosive materials** is adopted in its entirety without amendment.

## **Chapter 55 Cryogenic Fluids**

**Chapter 55 Cryogenic Fluids** is adopted in its entirety without amendment.

## **Chapter 56 Explosives and Fireworks**

**Chapter 56 Explosives and Fireworks** is adopted in its entirety with the following amendments:

**Section 5608.2 Firing** is hereby added as follows:

**5608.2 Firing.** All fireworks displays, regardless of mortar, device, or shell size, shall be electrically fired.

**5608.3 Application for Permit** is hereby added as follows:

**Section 5608.3 Application for Permit.** A diagram of the grounds on which the display is to be held showing the point at which the fireworks are to be discharged, the fallout area based on 100 feet per inch of shell size, the location of all buildings, roads, and other means of transportation, the lines behind which the audience will be restrained, the location of all nearby trees, telegraph or telephone line, or other overhead obstructions shall be provided to CMFR.

**Section 5609.1 General** is amended as follows:

**5609.1 General.** Where the temporary storage of consumer fireworks, 1.4G is allowed by Section 5601.1.3, Exception 4, such storage shall comply with the applicable requirements of NFPA 1124. In addition to the requirements of NFPA 1124, all temporary stands for the display and sale of fireworks shall be located, maintained and operated subject to the following provisions:

**5609.2.** No fireworks display or stand shall be erected within one hundred (100) feet of any gasoline dispensing device or room in which vehicles containing gasoline are repaired or within thirty-five (35) feet of any other structure. Minimum setback from a public sidewalk shall be five (5) feet; setback from street curbing shall be not less than ten (10) feet where no sidewalk exists.

**5609.3.** There shall be maintained in each premises or stand within which fireworks are sold or offered for sale, a fire extinguisher with a minimum rating of 2A, 10BC located adjacent to each exit.

**5609.4.** No person shall light or cause or permit to be lighted any fireworks open flame, match, lighter, or any other article or material within any such stand or within fifty (50) feet thereof.

**5609.5.** No smoking shall be allowed in any structure used for the sale and display of fireworks or within fifty (50) feet of said structure. "No smoking" signs shall be displayed prominently and in a number prescribed by the fire chief.

**5609.6.** All such temporary stands shall be constructed to existing city requirements and specifications.

**5609.7.** All such temporary stands for the display and sale of fireworks shall obtain an electrical permit from the City of Costa Mesa prior to performance of any electrical work. An electrical permit shall be required for the use of a portable generator or other temporary power source.

**5609.8.** All power and lighting shall be GFCI protected. Battery-powered equipment, electrical equipment, and electrical cords that are used in conjunction with a CFRS facility area shall be listed and shall be used in accordance with their listing.

**5609.9.** Where temporary electrical conductors are placed on top of an outdoor surface to connect the permanent power source to the temporary CFRS facility's temporary electrical system, the conductors shall be provided with physical protection against damage caused by pedestrian or vehicular traffic.

**5609.10.** Reserved.

**5609.11.** The permittee shall strictly comply with all of the provisions of the State Fireworks Law, Sections 12500 et seq. of the Health and Safety Code of the State of California.

**5609.12.** Fireworks shall be stored and kept only in the permittee's sale booth. It shall be unlawful to store any fireworks intended for sale in any building, residence, garage, home or automobile within the City of Costa Mesa.

**5609.13.** There shall be at least one (1) adult in attendance during any open or sale hours of the fireworks stand. No person under the age of eighteen (18) years, and no person who is physically or mentally unable to move himself shall be permitted within a fireworks stand.

**5609.14.** The permittee shall provide an adult night watchman to act and serve during the hours of storage. Under no circumstances shall any night watchman sleep within any fireworks stand.

**5609.15.** No alcoholic beverages shall be allowed on the premises.

**5609.16.** All fireworks fuses shall be taped.

**5609.17.** All permits must be posted in a conspicuous place.

## **Chapter 57**

## Flammable and Combustible Liquids

**Chapter 57 Flammable and Combustible Liquids.** Adopt Chapter 57, with the exception of Section 5707, in its entirety and with the following amendment:

**Section 5701.1.1 On-Demand Mobile fueling** is added as follows:

**5701.1.1 Mobile fueling.** On-demand mobile fueling of Class I, II, and III liquids into the fuel tanks of vehicles is prohibited.

## Chapter 58 Flammable Gases and Flammable Cryogenic Fluids

**Chapter 58 Flammable Gases and Flammable Cryogenic Fluids.** Adopt Chapter 58, with the exception of Section 5809, in its entirety and with the following amendment:

**Section 5801.1 Scope** is amended as follows:

**5801.1 Scope.** The storage and use of flammable gases and flammable cryogenic fluids shall be in accordance with this chapter, NFPA 2 and NFPA 55. Compressed gases shall also comply with Chapter 53 and cryogenic fluids shall also comply with Chapter 55. Flammable cryogenic fluids shall comply with Section 5806. Hydrogen motor fuel-dispensing stations and repair garages and their associated above-ground hydrogen storage systems shall also be designed, constructed and maintained in accordance with Chapter 23. Mobile fueling of gaseous and liquid hydrogen, compressed natural gas (CNG), and liquefied natural gas (LNG) into the fuel tanks of vehicles is prohibited.

### Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 605).
2. Liquefied petroleum gases and natural gases regulated by Chapter 61.
3. Fuel-gas systems and appliances regulated under the California Mechanical Code and the California Plumbing Code other than gaseous hydrogen systems and appliances.
4. Pyrophoric gases in accordance with Chapter 64.

## Chapter 59 Flammable Solids

**Chapter 59 Flammable Solids** is adopted in its entirety without amendment.

## Chapter 60



## **Highly Toxic and Toxic Materials**

**Chapter 60 Highly Toxic and Toxic Materials** is adopted in its entirety without amendment.

### **Chapter 61 Liquefied Petroleum Gases**

**Chapter 61 Liquefied Petroleum Gases** is adopted in its entirety without amendment.

### **Chapter 62 Organic Peroxides**

**Chapter 62 Organic Peroxides** is adopted in its entirety without amendment.

### **Chapter 63 Oxidizers, Oxidizing Gases, and Oxidizing Cryogenic Fluids**

**Chapter 63 Oxidizers, Oxidizing Gases, and Oxidizing Cryogenic Fluids** is adopted in its entirety without amendment.

### **Chapter 64 Pyrophoric Materials**

**Chapter 64 Pyrophoric Materials** is adopted in its entirety without amendment.

### **Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics**

**Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics** is adopted in its entirety without amendment.

### **Chapter 66 Unstable (Reactive) Materials**

**Chapter 66 Unstable (Reactive) Materials** is adopted in its entirety without amendment.

### **Chapter 67 Water-Reactive Solids and Liquids**

**Chapter 67 Water-Reactive Solids and Liquids** is adopted in its entirety without amendment.

### **Chapter 80 Referenced Standards**

**Chapter 80 Referenced Standards** is adopted in its entirety with the following amendments:

**NFPA 13, 2022 Edition, Standard for the Installation of Sprinkler Systems** is hereby amended as follows:

**Section 9.2.1.7** is hereby amended as follows:

**9.2.1.7** Concealed spaces filled with noncombustible insulation shall not require sprinkler protection when approved by the fire code official.

**Section 9.4.3.1** is hereby amended as follows:

**9.4.3.1** When fire sprinkler systems are installed in shell buildings of undetermined use (Spec Buildings) other than warehouses (S occupancies), fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.3.215.4.16
- (2) Residential sprinklers in accordance with the requirements of Chapter 12
- (3) Quick response CMSA sprinklers
- (4) ESFR sprinklers
- (5) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (6) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

**Section 16.11.2.1** is hereby amended as follows:

**16.11.2.1 Local Waterflow Alarms.** A local waterflow alarm shall be provided ~~on every sprinkler system having more than 20 sprinklers for all sprinkler systems and shall connected to the building fire alarm or water flow monitoring system where provided.~~ Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with at least one approved interior alarm device in each unit, or interconnection to the unit smoke alarm system. Sound levels in all sleeping areas shall be a minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over current protection (GFI), serving normally operated appliances in the residence.

**Section 16.12.3.3** is hereby amended as follows:

**16.12.3.3** Fire department connections (FDC) shall be of an approved type. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be

located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of 2½" inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red or as approved. When the fire sprinkler density design requires more than 500 gpm (including inside hose stream demand), or a standpipe system is included, four 2½" inlets shall be provided.

**Section 16.12.5.7** is hereby amended as follows:

**16.12.5.7 Fire Department Connections.** Fire department connections shall be located at the nearest point of fire department apparatus accessibility or at a location approved by the authority having jurisdiction. They shall be installed immediately adjacent to the approved fire department access road and such that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fence posts, or other fire department connections.

**Section 19.1.1.1** is hereby added as follows:

**19.1.1.1** When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 21.4.1.2.2.1 (d) curve "C". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent use or occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new use or occupancy.

**Section 19.2.3.1.1.1** is hereby added as follows:

**19.2.3.1.1.1** The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the fire code official:

- 1) Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;
- 2) Use a maximum of 40 psi, if available;
- 3) Utilize the CMFR water-flow test form/directions to document a flow test conducted by the local water agency or an approved third party licensed in the State of California.

**Section 28.4.5.2 (19) (g) Summary Sheet** is hereby added as follows:

**28.4.5.2 (19) (g)** Water supply certification shall be not more than six months prior to the plan submittal to the authority having jurisdiction.

**NFPA 13D 2022 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

**Section 4.6 Stock of Spare Sprinklers** is hereby added as follows:

4.6.1 A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

4.6.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

4.6.3 The sprinklers shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100°F (38°C).

4.6.4 A special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of sprinkler installed.

**Section 7.1.2** is hereby amended as follows:

**7.1.2** The sprinkler system piping shall not have a separate control valve installed unless supervised by one of the following methods:

- (1) Central station, proprietary or remote station alarm service.
- (2) ~~Local alarm service that causes the sounding of an audible signal at a constantly attended location~~ Reserved.
- (3) ~~Valves that are locked open~~ Reserved.

**Section 7.3 Pressure Gauges** is hereby amended as follows:

**7.3.1.** ~~Where a dry system is installed, a pressure gauge shall be installed to indicate system air pressure.~~ At least one water pressure gauge shall be installed on the riser assembly.

**Section 7.6 Alarms** is hereby amended as follows:

**7.6 Alarms.** ~~Local waterflow alarms shall be provided on all sprinkler systems in homes not equipped with smoke alarms or smoke detectors in accordance with NFPA 72.~~ Exterior water flow alarm indicating devices shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 dba above the average ambient sound level but not less than 75 dba. Audible devices shall be powered from an uninterruptible circuit (except for

over-current protection) serving normally operated appliances in the residence.

**Exception:**

(1) When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.

(2) When smoke detectors specified by the CBC or CRC are used to sound an interior alarm upon water flow switch activation.

**Section 8.3.5** is hereby amended as follows:

**8.3.5** Sprinklers shall not be required in attics ~~with or~~ without storage, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated for exclusively to and containing only dwelling unit ventilation equipment, floor/ceiling spaces, elevator shafts, crawl spaces, and other concealed spaces that are not intended for living purposes.

**Section 8.3.5.1.1** is hereby amended as follows:

**8.3.5.1.1** Where fuel-fired equipment is located other than beneath an occupied area of the dwelling unit, ~~sprinkler protection shall not be required based on the presence of the fuel-fired equipment.~~ at least one quick-response intermediate-temperature sprinkler shall be installed above the equipment or at the wall separating the space with the fuel-fired equipment from the occupied space.

**Section 8.3.5.1.3** is hereby added as follows:

**8.3.5.1.3** At a minimum, attics with storage access shall be protected with an intermediate temperature quick response sprinklers, which shall be located to protect attic penetrations created by the access scuttles or mechanical equipment.

**NFPA 13R 2022 Edition, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies** is hereby amended as follows:

**Section 6.6.6** is hereby amended as follows:

**6.6.6** Sprinklers shall not be required in attics without storage, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to and containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, vertical chases, elevator shafts where the elevator installation complies with ASME A17.1/CSA B44, Safety Code for Elevators and Escalators, and other concealed spaces that are not intended for living purposes or storage and do not contain fuel-fired equipment.

**Section 6.6.6.3** is hereby amended as follows:

**6.6.6.3** Where the fuel-fired equipment is above all occupied areas, ~~sprinkler protection~~

~~shall not be required in the concealed space. at least one quick-response intermediate-temperature sprinkler shall be installed above the equipment or at the wall separating the space with the fuel-fired equipment from the occupied space.~~

**Section 6.16.1** is hereby amended as follows:

**6.16.1** A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Chapter 9 of the California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm, residential smoke detection or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence. There shall also be a minimum of one exterior alarm indicating device, listed for outside service and audible from the access roadway that serves that building.

**NFPA 14, 2019 Edition, Installation of Standpipe and Hose Systems** is hereby amended as follows:

**Section 7.3.1.1** is hereby deleted in its entirety and replaced as follows:

~~**7.3.1.1** Hose connections and hose stations shall be unobstructed and shall be located not less than 3 ft (0.9 m) or more than 5 ft (1.5 m) above the floor.~~

**7.3.1.1** Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

**NFPA 24, 2019 Edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances** is hereby amended as follows:

**Section 6.2.8.1** is hereby added as follows:

**6.2.8.1** All indicating valves controlling fire suppression water supplies shall be painted OSHA red.

**Exceptions:**

1. Brass or bronze valves on sprinkler risers mounted to the exterior of the building may be left unpainted.

2. Where OS&Y valves on the detector check assembly are the only control valves, at least one OS&Y valve shall be painted red.

**Section 6.2.9** is hereby amended as follows:

**6.2.9** All connections to private fire service mains for fire protection systems shall be arranged in accordance with one of the following so that they can be isolated:

- (1)\*A post indicator valve installed not less than 40 ft (12 m) from the building
  - (a) For buildings less than 40 ft (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the post indicator valve.
- (2) A wall post indicator valve on risers located within the building, either a nonrising stem gate valve with a wall post indicator or a listed butterfly valve with an indicating handle extending out through the building wall.
- (3) An indicating valve in a pit, installed in accordance with Section 6.4
- (4)\*A backflow preventer with at least one indicating valve not less than 40 ft (12 m) from the building.
  - (a) For buildings less than 40 ft (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the backflow preventer.
  - (b) Backflow preventer valves shall be allowed to be closer than 40 ft (12 m) to the building when a property line or other physical barriers make it impossible to have a backflow preventer valve 40 ft (12 m) away.
  - (c) Backflow preventer valves shall be allowed to be closer than 40 ft (12 m) to the building when building driveway or fire access roadways or other building traffic make it impractical to be 40 ft (12 m).
- (5)\* When approved by the Costa Mesa Fire & Rescue Department, a nonindicating valve, such as an underground gate valve with an approved roadway box, complete with T-wrench, located not less than 40 ft (12 m) from the building
  - (a) For buildings less than 40 ft (12 m) in height, a nonindicating valve, such as an underground gate valve with an approved roadway box, complete with T-wrench, shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the non-indicating valve.
- (6) Control valves installed in a fire-rated room accessible from the exterior
- (7) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the AHJ

**Section 10.1.5** is hereby added as follows:

**10.1.5** All ferrous pipe and joints shall be polyethylene encased per AWWA C150, Method A, B, or C. All fittings shall be protected with a loose 8-mil polyethylene tube or sheet. The

ends of the tube or sheet shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

**Exception:** 304 or 316 Stainless Steel pipe and fittings

**Section 10.4.1.1** is hereby amended as follows:

**10.4.1.1** All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material after installation.

**Exception:** Bolted joint accessories made from 304 or 316 stainless steel.

**Section 10.4.1.1.1** is hereby added as follows:

**10.4.1.1.1** All bolts used in pipe-joint assembly shall be 316 stainless steel.

## **Appendices**

**Appendix A** is deleted in its entirety without amendment.

**Appendix B** is adopted in its entirety without amendments outlined in CMFR Plan Submittal Checklist Specifications.

**Appendix BB** is adopted in its entirety without amendment.

**Appendix C** is adopted in its entirety without amendment.

**Appendix CC** is adopted in its entirety without amendment.

**Appendix D** is deleted in its entirety without amendment.

**Appendix E** is deleted in its entirety without amendment.

**Appendix F** is deleted in its entirety without amendment.

**Appendix G** is deleted in its entirety without amendment.

**Appendix H** is adopted in its entirety without amendment.

**Appendix I** is deleted in its entirety without amendment.

**Appendix J** is deleted in its entirety without amendment.



**Appendix K** is deleted in its entirety without amendment.

**Appendix L** is deleted in its entirety without amendment.

**Appendix M** is deleted in its entirety without amendment.

**Appendix N** is adopted in its entirety without amendment.

**Appendix O** is deleted in its entirety without amendment.

**Appendix P** is deleted in its entirety without amendment.