

CITY OF LOS ALAMITOS

3191 Katella Avenue
Los Alamitos, CA 90720

AGENDA CITY COUNCIL SPECIAL MEETING

Monday, December 2, 2013 – 6:00 p.m.

I, Warren Kusumoto, as Mayor of the City of Los Alamitos, do hereby call a Special meeting of the City Council of the City of Los Alamitos, to be held at the time and place listed above to discuss the matters listed below.



Warren Kusumoto, Mayor of the City of Los Alamitos

NOTICE TO THE PUBLIC

This Agenda contains a brief general description of each item to be considered. Except as provided by law, action or discussion shall not be taken on any item not appearing on the agenda. Supporting documents, including staff reports, are available for review at City Hall in the City Clerk's Office or on the City's website at www.cityoflosalamitos.org once the agenda has been publicly posted.

Any written materials relating to an item on this agenda submitted to the City Council after distribution of the agenda packet are available for public inspection in the City Clerk's Office, 3191 Katella Ave., Los Alamitos CA 90720, during normal business hours. In addition, such writings or documents will be made available for public review at the respective public meeting.

It is the intention of the City of Los Alamitos to comply with the Americans with Disabilities Act (ADA) in all respects. If, as an attendee, or a participant at this meeting, you will need special assistance beyond what is normally provided, please contact the City Clerk's Office at (562) 431-3538, extension 220, 48 hours prior to the meeting so that reasonable arrangements may be made. Assisted listening devices may be obtained from the City Clerk at the meeting for individuals with hearing impairments.

Persons wishing to address the City Council on any item on the City Council Agenda should complete a blue "Request to Speak" card and will be called upon at the time the agenda item is called or during the City Council's consideration of the item and may address the City Council for up to three minutes.

1. **CALL TO ORDER**

2. **ROLL CALL**
 - Council Member Edgar
 - Council Member Grose
 - Council Member Murphy
 - Mayor Pro Tem Graham-Mejia
 - Mayor Kusumoto

3. SPECIAL ORDERS OF THE DAY

A. **Workshop on the Adoption of 2013 California Building Codes and California Fire Code (Community Development)**

Every three years the City of Los Alamitos must adopt new codes related to construction to comply with the update of the state wide adoption of the Code. The attached Ordinances implement the adoption. This item had first reading on October 21, 2013. This item was brought to the City Council on October 21, 2013, for hearing and November 18, 2013 for second reading. Mayor Kusumoto requested a workshop on this item during the November 18, 2013, meeting.

Recommendation:

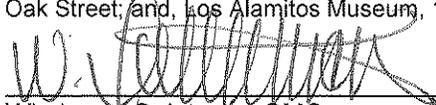
1. Direct Staff Accordingly; or alternatively;
2. Waive reading in full and authorize reading by title only of Ordinance No. 13-07, and Ordinance No. 13-08; and,
3. Mayor Kusumoto read the title of Ordinance No. 13-07, entitled, "AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, REPEALING CHAPTER 15.04 OF TITLE 15 OF THE LOS ALAMITOS MUNICIPAL CITY CODE AND ADDING A NEW CHAPTER 15.04, ADOPTING BY REFERENCE: VARIOUS PROVISIONS OF THE 2013 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODES (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE CALIFORNIA ADMINISTRATIVE CODE, THE CALIFORNIA BUILDING CODE, THE CALIFORNIA RESIDENTIAL CODE, THE CALIFORNIA GREEN BUILDING STANDARDS CODE, THE CALIFORNIA ELECTRICAL CODE, THE CALIFORNIA MECHANICAL CODE, THE CALIFORNIA PLUMBING CODE, THE CALIFORNIA ENERGY CODE, THE CALIFORNIA HISTORICAL BUILDING CODE, THE CALIFORNIA EXISTING BUILDING CODE; AND THE CALIFORNIA REFERENCED STANDARDS CODE; THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; THE 2012 INTERNATIONAL SWIMMING POOL AND SPA CODE, 2012 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; AND THE STATE HOUSING CODE."
4. Mayor Kusumoto read the title of Ordinance No. 13-08, entitled, "AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, DELETING CHAPTER 15.08 OF THE LOS ALAMITOS MUNICIPAL CODE AND ADDING A NEW

CHAPTER 15.08 ADOPTING BY REFERENCE THE 2013 EDITION OF THE CALIFORNIA FIRE CODE (TITLE 24, PART 9) WITH APPENDICES AND AMENDMENTS THERETO." and,

5. Adopt Ordinance No. 13-07 and Ordinance No. 13-08.

4. ADJOURNMENT

I hereby certify under penalty of perjury under the laws of the State of California, that the foregoing Agenda was posted at the following locations: Los Alamitos City Hall, 3191 Katella Ave.; Los Alamitos Community Center, 10911 Oak Street; and, Los Alamitos Museum, 11062 Los Alamitos Blvd.; not less than 24 hours prior to the meeting.



Windmera Quintanar, CMC
City Clerk

11/27/13

Date

City of Los Alamitos

Agenda Report

December 2, 2013

Special Orders of the Day Item No: 3A

To: Mayor Kusumoto & Members of the City Council

Via: Bret M. Plumlee, City Manager

From: Steven Mendoza, Community Development & Public Works Director

Subject: Workshop on the Adoption of 2013 California Building Codes and California Fire Code

Summary: Every three years the City of Los Alamitos must adopt new codes related to construction to comply with the update of the State Wide adoption of the Code. The attached Ordinances implement the adoption. This item had first reading on October 21, 2013. This item was brought to the City Council on October 21, 2013 for hearing and November 18, 2013 for second Reading. Mayor Kusumoto requested a workshop on this item during the November 18, 2013 meeting.

Recommendation:

1. Direct Staff Accordingly; or alternatively;
2. Waive reading in full and authorize reading by title only of Ordinance No. 13-07, and Ordinance No. 13-08; and,
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INTERNATIONAL CODE COUNCIL; AND THE STATE HOUSING CODE.”

4. Mayor Kusumoto read the title of Ordinance No. 13-08, entitled, “AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, DELETING CHAPTER 15.08 OF THE LOS ALAMITOS MUNICIPAL CODE AND ADDING A NEW CHAPTER 15.08 ADOPTING BY REFERENCE THE 2013 EDITION OF THE CALIFORNIA FIRE CODE (TITLE 24, PART 9) WITH APPENDICES AND AMENDMENTS THERETO.” and,
5. Adopt Ordinance No. 13-07 and Ordinance No. 13-08.

Background

In accordance with State law, the 2013 Edition of the California Building Codes and Fire Code has been adopted by the State Building Standards Commission. The new Codes are mandated for statewide enforcement on January 1, 2014. Any city, county, or fire protection district may establish more restrictive standards than those contained in the California Fire Code (CFC), or make changes and amendments if the amendments are reasonably necessary because of local climatic, geological, or topographical conditions.

The Orange County Fire Authority (OCFA) has recommended amendments to the CFC based on local conditions for the greater Orange County area. For the most part, the changes to the 2013 CFC are a carryover of amendments and updates made to the previously adopted 2010 code. This code adoption process occurs every three years and is incorporated into the California Code of Regulations.

Discussion

At the request of the Mayor, a Building Code/Fire Code workshop will be held giving the Council an opportunity to ask questions of the Chief Building Official and the Orange County Fire Authority in regards to the 2013 round of Code Adoption. Staff has attached the November 18, 2013 staff report and the applicable Ordinances. Again this term, the Orange County Fire Authority is recommending an amendment that requires a homeowner undertaking a remodel to install sprinklers on the entire house (not just the new portion of the house) if they are adding 33% or more space and greater than 1,000 square feet. Last term, the City Council adopted a threshold of 33% and 5,000 square feet. Staff is recommending that we retain our 5,000 square feet threshold. While most neighborhoods would not be impacted due to their inability to expand beyond 1,000 square feet, there is currently a mini-building boom in Carrier Row where larger homes are being rebuilt.

Staff is recommending the following changes to this section as represented in the box to the right. The remainder of the proposed amendments are administrative or procedural in nature. Both Ordinances set forth a number of findings, which are necessary to enable the City to amend the new Building Standard Codes and Fire Codes to meet our local conditions.

Fiscal Impact

None.

- a) Section R 313.2 is modified by deleting it in its entirety and replacing it with the following :

R313.2 One- and two-family dwellings automatic fire sprinklers systems. An automatic residential fire sprinkler system installed in one- and two-family dwellings as follows:

New buildings: An automatic sprinkler system shall be installed throughout all new buildings.

Existing buildings: An automatic sprinkler system shall be installed throughout when one of the following conditions exists:

1. When an addition is 33% or more of the existing building area, as defined in Section 502.1, and greater than ~~4000 square feet~~ ~~(92.903-m²)~~ 5,000 square feet (464,515 m²) within a two year period; or
2. An addition when the existing building is already provided with automatic sprinklers; or.
3. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

Submitted By:



Steven A. Mendoza
Community Development
& Public Works Director

Approved By:



Bret M. Plumlee
City Manager

Attachments: 1. Ordinance No. 13-07
2. Ordinance No. 13-08
3. November 18, 2013 City Council Report

ORDINANCE NO. 13-07

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, REPEALING CHAPTER 15.04 OF TITLE 15 OF THE LOS ALAMITOS MUNICIPAL CITY CODE AND ADDING A NEW CHAPTER 15.04, ADOPTING BY REFERENCE: VARIOUS PROVISIONS OF THE 2013 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODES (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE CALIFORNIA ADMINISTRATIVE CODE, THE CALIFORNIA BUILDING CODE, THE CALIFORNIA RESIDENTIAL CODE, THE CALIFORNIA GREEN BUILDING STANDARDS CODE, THE CALIFORNIA ELECTRICAL CODE, THE CALIFORNIA MECHANICAL CODE, THE CALIFORNIA PLUMBING CODE, THE CALIFORNIA ENERGY CODE, THE CALIFORNIA HISTORICAL BUILDING CODE, THE CALIFORNIA EXISTING BUILDING CODE; AND THE CALIFORNIA REFERENCED STANDARDS CODE; THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; THE 2012 INTERNATIONAL SWIMMING POOL AND SPA CODE, 2012 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; AND THE STATE HOUSING CODE.

THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Findings.

- A. California law provides that on January 1, 2014, all portions of the 2013 Building Standards Code will be effective within the City.
- B. Pursuant to Sections 17922, 17958, 17958.5 and 17958.7 of the California Health and Safety Code, the City may amend the provisions of the Building Standards Code which are reasonably necessary to protect the health, welfare and safety of citizens of Los Alamitos because of "local climatic, geological, or topographical conditions."
- C. The City of Los Alamitos is located in the northwest portion of Orange County and is more prone to high winds and earthquakes than other portions of the state.
- D. The Orange County Fire Authority and the City's Building Official have recommended modifying the 2013 California Building Standards Code due to local conditions in the City of Los Alamitos.
- E. The findings within Exhibit A are incorporated by reference. Such findings are in accordance with the California Health and Safety Code Sections.
- F. The Building Official has also recommended adoption of the 2012 versions of the International Swimming Pool and Spa Code and the International Property Maintenance Code, both as published by the International Code Council.
- G. Title 25 of the California Code of Regulations, Division 1, Chapter 1, Subchapter 1, Article 3, Section 6 requires a city to adopt ordinances or regulations imposing the requirements contained in Subchapter 1 entitled "State Housing Law Regulations."

- H. In accordance with CEQA Guidelines Section 15060(c)(2) – The adoption of this Ordinance will not foreseeably result in direct or reasonably foreseeable indirect impacts and is exempt from the provisions of the California Environmental Quality Act.

SECTION 2. Chapter 15.04 of the Los Alamitos Municipal Code is hereby repealed in its entirety and a new Chapter 15.04 is hereby added as follows:

Sec. 15.04.010 Construction Codes Adopted.

- A. For the purpose of prescribing regulations for erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, maintenance, equipment use, height, and area of buildings and structures, the following Construction Codes subject to the modifications set forth in this Chapter, are hereby adopted:
1. The 2013 California Administrative Code (Part 1);
 2. The 2013 California Building Code with Appendix G Flood Resistant Construction and Appendix J Grading (Part 2);
 3. 2013 California Residential Code with Appendix G Swimming Pools, Spas and Hot Tubs (Part 2.5);
 4. 2013 California Electrical Code (Part 3);
 5. 2013 California Mechanical Code (Part 4);
 6. 2013 California Plumbing Code, (Part 5);
 7. 2013 California Energy Code, (Part 6);
 8. 2013 California Historical Building Code (Part 8);
 9. 2013 California Existing Building Code (Part 10);
 10. 2013 California Green Building Standards (Part 11, known as the "CALGreen" Code);
 11. 2013 California Referenced Standards Code (Part 12);
 12. 2012 International Swimming Pool and Spa Code, as published by the International Code Council; and
 13. 2012 International Property Maintenance Code, as published by the International Code Council.
- B. The Codes set forth in A.1 through A.11, as amended by this chapter, along with the 2013 California Fire Code as amended in Chapter 15.08, constitute the Building Standards Code. The Building Standards Code, along with the Codes set forth in A.12 and A.13 above shall constitute the Building Regulations of the City of Los Alamitos.
- C. One (1) copy of all the above Codes and Standards shall be kept on file in the office of the Building Official pursuant to Health and Safety Code Section 18942 (d)(1) and made available for public inspection.

- D. References in Documents and Continuing Legal Effect. References to prior editions of the Building Standards Code or the Municipal Code sections amended herein that are cited on notices issued by the City or other documents of ongoing or continuing legal effect, including specifically resolutions adopting or imposing fees or charges, until converted, are deemed to be references to the new counterpart 2013 Building Standards Code or amended Municipal Code sections for the purposes of notice and enforcement. The provisions adopted hereby shall not in any manner affect deposits, established fees or other matters of record which refer to, or are otherwise connected with, ordinances which are specifically designated by number, code section or otherwise, but such references shall be deemed to apply to the corresponding provisions set forth in the 2013 Building Standards Code adopted hereby. Any fee authorized by the above-referenced construction codes which was in effect in the city at the time of the adoption of this ordinance need not be re-adopted by resolution, and shall continue in effect, and remain unadjusted in amount unless and until the City Council adopts a resolution repealing the fee or establishing a different fee.

15.04.020 [Deleted]

15.04.030 Amendments to the 2013 California Building Code.

The following amendments to the 2013 California Building Code shall apply in the City:

Section 104.8 Liability is hereby amended by adding a sentence to the end of the paragraph as follows:

The provisions of this section shall apply if the Building Official or his/her authorized representatives are employees of this jurisdiction and shall also apply if the Building Official or his/her authorized representatives are acting under contract as agents of this jurisdiction.

Section 105.2 Work exempt from a permit is hereby amended by amending Exemption 2 as follows:

2. Fences not over 6 feet (2134 mm) high.

Section 113.1 is amended as follows:

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Board of Appeals. The Board of Appeals shall consist of five members and composed of the Mayor and the other members of the City Council. Said members shall hold their respective membership on said Board of Appeals by reason of, and concurrently with their terms of service as Council members and shall cease to be such members upon their ceasing to be Council members. The Building Official shall be the Secretary of the Board.

The Board may adopt reasonable rules and regulations for conducting its investigations and shall render all its decisions and findings on contested matters in writing to the Building Official, with duplicative copy thereof to any appellant or contestant affected by any such decision of finding.

Three members of the Board shall constitute a quorum. The Mayor shall be the presiding Officer of the Board. Meetings shall be conducted in accordance with the Brown Act.

The Board shall have the right, subject to such limits as the City Council may prescribe by resolution, to employ at the cost and expense of the City, such qualified individuals as the Board, in its discretion, may deem reasonably necessary in order to assist it in its investigations and making its findings and decisions.

Section 113.3 is deleted in its entirety without replacement.

Section 202 Definitions is hereby amended by adding the following definitions as follows:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a building that is not intended to function as a heliport or heli-stop but is capable of accommodating fire, police or medical helicopters engaged in emergency operations.

HIGH-RISE STRUCTURE. Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet above the lowest floor level having building access (see Section 403.1.2), except buildings used as hospitals as defined by the Health and Safety Code Section 1250.

SAFETY AREA. A defined area surrounding the landing pad which is free of obstructions.

TAKEOFF AND LANDING AREA. The combination of the landing pad centered within the surrounding safety area.

Section 403 High-Rise Buildings is hereby amended as follows:

**SECTION 403
HIGH-RISE BUILDINGS HAVING OCCUPIED FLOORS
LOCATED MORE THAN 55 FEET ABOVE THE LOWEST LEVEL
OF FIRE DEPARTMENT VEHICLE ACCESS AND GROUP I-2**

OCCUPANCIES HAVING OCCUPIED FLOORS LOCATED MORE THAN 75 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS

Section 403.1 Applicability is hereby amended as follows:

403.1 Applicability. New high-rise buildings having occupied floors located more than 55 feet above the lowest level of Fire Department vehicle access and new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of Fire Department vehicle access shall comply with Sections 403.2 through 403.6.

SECTION 412.7 is hereby amended by adding Sections 412.7.5 through 412.7.5.12 as follows:

412.7.5. Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility (EHLF) shall be constructed as specified in Section 412.7.5.1 through 412.7.5.13.

412.7.5.1 General. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for use by fire, police, and emergency medical helicopters only.

412.7.5.2 Rooftop Landing Pad. The landing pad shall be 50 feet x 50 feet or a 50 foot diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code 412.7.2.

412.7.5.3 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated in plan from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

412.7.5.4 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 feet in all directions from the edge

of the landing pad. No objects shall penetrate above the plane of the safety area.

412.7.5.5 Safety Net. If the rooftop landing pad is elevated more than 30 inches (2'-6") above the adjoining surfaces, a 6-foot wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be slightly dropped (greater than 5 inches but less than 18 inches) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.

412.7.5.6 Take-off and Landing Area. The takeoff and landing area shall be free of obstructions and 100 feet x 100 feet or 100 foot diameter.

412.7.5.7 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

412.7.5.8 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 412.7.5.8

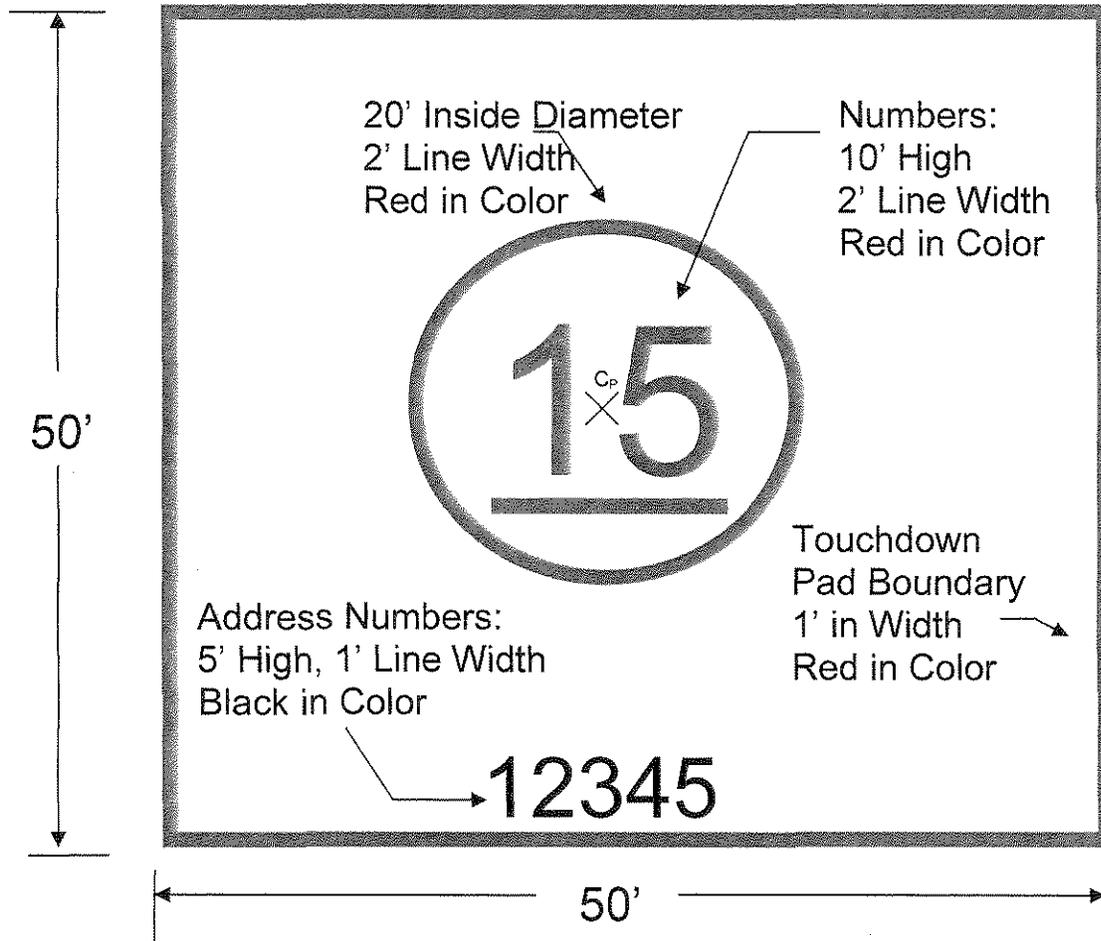
412.7.5.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.7.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

412.7.5.10 Standpipe Systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

412.7.5.11 Fire Extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairways or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the California Fire Code, Section 906.

412.7.5.12 EHLF. Fueling, maintenance, repairs, or storage of helicopters shall not be permitted.

Figure 412.7.5.8 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

Section 903.2 Where required is hereby amended as follows:

[F] 903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the following locations:

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as defined in Section 202, exceeds

5,000 square feet (465 m²), or more than two stories in height, regardless of fire areas or allowable area.

Exception: Group R-3 occupancies. Group R-3 occupancies shall comply with California Residential Code Section R313.2.

2. **Existing buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and when one of the following conditions exists:

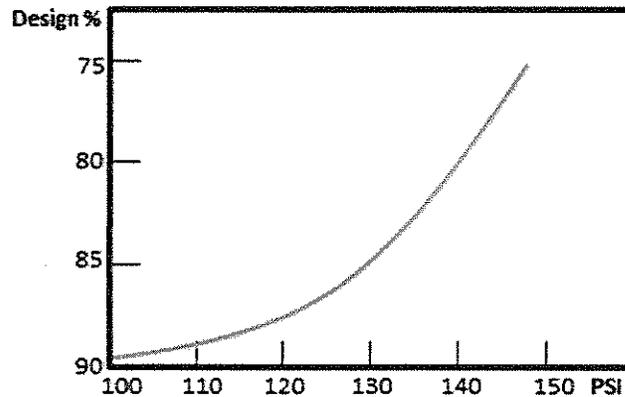
- a. When the addition is 33% or more of the existing building area and the resulting building area, as defined in Section 202, exceeds 5000 square feet (465 m²); or
- b. When the addition exceeds 2000 square feet (185.81 m²) and the resulting building area, as defined in Section 202, exceeds 5000 square feet (465 m²); or
- c. An additional story is added above the second floor regardless of fire areas or allowable area.

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 required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3

TABLE 903.3.5.3
Hydraulically Calculated Systems



Section 903.4 Sprinkler system supervision and alarms is hereby amended as follows:

[F] 903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. Jockey pump control valves that are sealed or locked in the open position.
4. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
5. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Section 905.4 Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

[F] 905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

7. The centerline of the 2.5 inches (64 mm) outlet shall be no less than 18 inches (457 mm) above and no more than 24 inches (610 mm) above the finished floor.

Section 907.2.13 High-rise buildings is hereby amended as follows:

[F] 907.2.13 High-rise buildings HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access. High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412
2. Open parking garages in accordance with Section 406.5
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1
4. Low-hazard special occupancies in accordance with Section 503.1.1
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

Section 907.3.1 Duct smoke detectors is hereby amended as follows:

[F] 907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

Exception:

In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

Section 907.5.2.2 Emergency voice/alarm communication system is hereby amended as follows:

[F] 907.5.2.2 Emergency voice/alarm communication system. Emergency voice/alarm communication system required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.
5. Dwelling Units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.6.3.2 High-rise buildings is hereby amended as follows.

907.6.3.2 High-rise buildings. High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating

devices where provided:

1. Smoke detectors.
2. Sprinkler waterflow devices.
3. Manual fire alarm boxes.
4. Other approved types of automatic detection devices or suppression systems.

Section 907.6.5 Monitoring is hereby amended, as follows:

907.6.5 Monitoring. Fire alarm systems required by this chapter or by the California Fire Code shall be monitored by an approved supervising station in accordance with NFPA 72, this section, and per Orange County Fire Authority Guideline "New and Existing Fire Alarm & Signaling Systems".

Table 1505.1 is hereby amended, by the deletion of Table 1505.1 and the addition of a new Table 1505.1 thereto, as follows:

TABLE 1505.1^a
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 m².

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

Section 1505.1.3 is hereby amended, by the deletion of the entire section and the addition of a new section thereto, as follows:

1505.1.3 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.

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

Section 1505.7 is hereby amended, by the deletion of the entire section.

Section 1807.1.6 is hereby amended, 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.

Section 3109.4.4 is hereby amended to clarify that pool barriers which are already in the Code are scoped so as to apply on all private swimming pools and is hereby amended, as follows:

Section 3109.4.4.1 is hereby amended by adding the following definition as follows:

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

Section 3109.4.4.2 is hereby amended by deleting the first paragraph in its entirety and a new paragraph is substituted as follows:

3109.4.4.2 Construction permit; safety features required. Commencing January 1, 1998, except as provided in Section 3109.4.4.5, whenever a construction permit is issued for construction of a new private pool at a residence, it shall have an enclosure complying with 3109.4.4.3 and, it shall be equipped with at least one of the following safety features:

NFPA 13, 2013 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.3 is hereby amended as follows:

6.8.3 Fire Department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The size of piping and the number of 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. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2-½" inlets shall be provided. FDC may be located

within 150 feet of a private fire hydrant when approved by the Fire Code Official.

Section 8.3.3.1 is hereby amended as follows:

8.3.3.1. 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 permit is issued. Sprinklers in light hazard occupancies shall be one of the following:

1. Quick-response type as defined in 3.6.4.7.
2. Residential sprinklers in accordance with the requirements of 8.4.5.
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers.
4. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems.

Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Water Flow Alarms. Local water-flow alarms 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 not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within 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 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.

Section 11.1.1.2 is hereby added as follows:

11.1.1.2 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 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Where a subsequent 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 occupancy.

Section 11.2.3.1.1.1 is hereby added as follows:

11.2.3.1.1.1 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 multiplying the result by 0.433;
- 2) Use a maximum of 40 psi, if available;
- 3) Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California. The result shall be adjusted in accordance with the graduated scale found in the guideline.

Section 23.2.1.1 is hereby amended as follows:

Section 23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

NFPA 13R, 2013 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

Section 6.16.1 is hereby amended as follows:

6.16.1 Local water-flow alarms 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 Section 907.2.8 of the 2013 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each dwelling 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 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 13D, 2013 Edition, Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 4.1.3 is hereby added as follows:

4.1.3 Stock of Spare Sprinklers

Section 4.1.3.1 is hereby added as follows:

4.1.3.1. 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.

Section 4.1.3.2 is hereby added as follows:

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

Section 4.1.3.3 is hereby added as follows:

4.1.3.3 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).

Section 4.1.3.4 is hereby added as follows:

4.1.3.4 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 system piping shall not have a separate control valve unless supervised by a central station, proprietary or remote station alarm service.

Section 7.6 is hereby deleted in its entirety and replaced as follows:

7.6 Alarms Exterior alarm indicating device 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 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces. 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 under CBC Section 310.9 are used to sound an alarm upon waterflow switch activation.

Section 8.6.4.2 is hereby added as follows:

8.6.4.2 All attics shall be protected with an intermediate temperature quick response sprinkler which shall be located to protect attic penetrations created by the access scuttles or mechanical equipment

NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

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

7.3.1.1 Hose Connection Height 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, 2013 Edition, Installation of Private Fire Service Mains and Their Appurtenances is hereby amended as follows:

Section 6.2.1.1 is hereby added as follows:

6.2.1.1 The closest upstream indicating valve to the riser shall be painted OSHA red.

Section 6.2.11 (5) is hereby deleted without replacement and (6) and (7) renumbered:

(5) Control Valves installed in a fire-rated room accessible from the exterior.

(6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

Section 6.3.3 is hereby added as follows:

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted OSHA red.

Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube 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 10.3.6.2 is hereby amended as follows:

10.3.6.2 All bolted joint accessories shall be cleaned and thoroughly

coated with asphalt or other corrosion-retarding material, prior to poly-tube, and after installation.

Section 10.3.6.3 is hereby added as follows:

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

Section 10.6.3.1 is hereby amended as follows:

10.6.3.1 Where fire service mains enter the building adjacent to the foundation the pipe may run under a building to a maximum of 18 inches, as measured from the interior of the exterior wall. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or comply with 10.6.2.

Section 10.6.4 is hereby revised as follows:

10.6.4 Pipe Joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

15.04.40 Amendments to the 2013 California Residential Code.

Table R301.2(1) is amended :

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

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^o	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ⁱ
	Speed ^d (mph)	Topographic effects ^k		Weathering ^a	Frost line Depth ^b	Termite ^c					
Zero	85	No	D ₂ or E	Negligible	12- 24"	Very Heavy	43	No	See Exhibit B	0	60

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

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. 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(3)].

The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

- b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. 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.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the Building Official.
- f. 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 (a) 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 flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
- h. In accordance with Sections R905.2.7.1, 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%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" 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.

Section R313.3.6.2.2 Calculation procedure is hereby revised as follows:

Section R313.3.6.2.2 Calculation procedure. Determination of the required size for water distribution piping shall be in accordance with the following procedure and California Fire Code Section 903.3.5.3.

Section R 313.2 is modified by deleting it in its entirety and replacing it with the

following:

R313.2 One- and two-family dwellings automatic fire sprinkler systems. An automatic residential fire sprinkler system installed in one- and two-family dwellings as follows:

New buildings: An automatic sprinkler system shall be installed throughout all new buildings.

Existing buildings: An automatic sprinkler system shall be installed throughout when one of the following conditions exists:

1. When an addition is 33% or more of the existing building area, as defined in Section 502.1, and greater than 5,000 square feet (92.903m²) within a two year period; or
2. An addition when the existing building is already provided with automatic sprinklers; or
3. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

Section R319 Site Address is hereby amended as follows:

R319 Site Address. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the Fire Code Official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

Section R403.1.3 is modified by deleting the exception for masonry stem walls:

In Seismic Design Categories D₀, D₁ and D₂ masonry stem walls without solid grout and vertical reinforcing are not permitted.

Section R405.1 is amended as follows:

.....at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches of the same material.

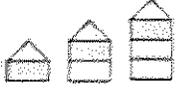
Table R602.10.3(3) is amended as follows:

TABLE R602.10.3(3)
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

<ul style="list-style-type: none"> • SOIL CLASS D^b • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^c				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^d	Method GB ^e	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{d,e}	Method WSP	Methods CS-WSP, CS-G
C (townhouses only)		10	2.5	2.5	2.5	1.6	1.4
		20	5.0	5.0	5.0	3.2	2.7
		30	7.5	7.5	7.5	4.8	4.1
		40	10.0	10.0	10.0	6.4	5.4
		50	12.5	12.5	12.5	8.0	6.8
		10	NP	4.5	4.5	3.0	2.6
		20	NP	9.0	9.0	6.0	5.1
		30	NP	13.5	13.5	9.0	7.7
		40	NP	18.0	18.0	12.0	10.2
		50	NP	22.5	22.5	15.0	12.8
		10	NP	6.0	6.0	4.5	3.8
		20	NP	12.0	12.0	9.0	7.7
		30	NP	18.0	18.0	13.5	11.5
		40	NP	24.0	24.0	18.0	15.3
		50	NP	30.0	30.0	22.5	19.1
D ₀		10	NP	2.8 5.6	2.8 5.6	1.8	1.6
		20	NP	5.5 11.0	5.5 11.0	3.6	3.1
		30	NP	8.2 16.6	8.2 16.6	5.4	4.6
		40	NP	11.0 22.0	11.0 22.0	7.2	6.1
		50	NP	13.8 27.6	13.8 27.6	9.0	7.7
		10	NP	5.3 NP	5.3 NP	3.8	3.2
		20	NP	10.5 NP	10.5 NP	7.5	6.4
		30	NP	15.8 NP	15.8 NP	11.3	9.6
		40	NP	21.0 NP	21.0 NP	15.0	12.8
		50	NP	26.2 NP	26.2 NP	18.8	16.0
		10	NP	7.3 NP	7.3 NP	5.3	4.5
		20	NP	14.5 NP	14.5 NP	10.5	9.0
		30	NP	21.8 NP	21.8 NP	15.8	13.4
		40	NP	29.0 NP	29.0 NP	21.0	17.9
		50	NP	36.2 NP	36.2 NP	26.3	22.3

(continued)

TABLE R602.10.3(3)—continued
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

<ul style="list-style-type: none"> • SOIL CLASS D^a • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^b					
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^c	Method GB ^e	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{d,e}	Method WSP	Methods CS-WSP, CS-G	
D ₁		10	NP	3.0 6.0	3.0 6.0	2.0	1.7	
		20	NP	6.0 12.0	6.0 12.0	4.0	3.4	
		30	NP	9.0 18.0	9.0 18.0	6.0	5.1	
		40	NP	12.0 24.0	12.0 24.0	8.0	6.8	
		50	NP	15.0 30.0	15.0 30.0	10.0	8.5	
		10	NP	6.0 NP	6.0 NP	4.5	3.8	
		20	NP	12.0 NP	12.0 NP	9.0	7.7	
		30	NP	18.0 NP	18.0 NP	13.5	11.5	
		40	NP	24.0 NP	24.0 NP	18.0	15.3	
		50	NP	30.0 NP	30.0 NP	22.5	19.1	
		10	NP	8.5 NP	8.5 NP	6.0	5.1	
		20	NP	17.0 NP	17.0 NP	12.0	10.2	
		30	NP	25.5 NP	25.5 NP	18.0	15.3	
		40	NP	34.0 NP	34.0 NP	24.0	20.4	
		50	NP	42.5 NP	42.5 NP	30.0	25.5	
D ₂		10	NP	4.0 8.0	4.0 8.0	2.5	2.1	
		20	NP	8.0 16.0	8.0 16.0	5.0	4.3	
		30	NP	12.0 24.0	12.0 24.0	7.5	6.4	
		40	NP	16.0 32.0	16.0 32.0	10.0	8.5	
		50	NP	20.0 40.0	20.0 40.0	12.5	10.6	
		10	NP	7.5 NP	7.5 NP	5.5	4.7	
		20	NP	15.0 NP	15.0 NP	11.0	9.4	
		30	NP	22.5 NP	22.5 NP	16.5	14.0	
		40	NP	30.0 NP	30.0 NP	22.0	18.7	
		50	NP	37.5 NP	37.5 NP	27.5	23.4	
		10	NP	NP	NP	NP	NP	
		20	NP	NP	NP	NP	NP	
		30	NP	NP	NP	NP	NP	
		40	NP	NP	NP	NP	NP	
		50	NP	NP	NP	NP	NP	
	Cripple wall below one- or two-story dwelling	10	NP	NP	NP	NP	7.5	6.4
		20	NP	NP	NP	NP	15.0	12.8
		30	NP	NP	NP	NP	22.5	19.1
		40	NP	NP	NP	NP	30.0	25.5
50		NP	NP	NP	NP	37.5	31.9	

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 pound per square foot = 0.0479 kPa.

- a. Linear interpolation shall be permitted.
- b. Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between the S_{ds} values associated with the Seismic Design Categories shall be permitted when a site-specific S_{ds} value is determined in accordance with Section 1613.3 of the *International Building Code*.
- c. Method LIB shall have gypsum board fastened to at least one side with nails or screws per Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches.
- d. Method CS-SFB applies in SDC C only.
- e. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D0, D1 or D2. Methods DWB, SFB, PBS, and HPS are not permitted in SDC D0, D1, or D2.

Section R902.1 is amended by revising it to allow only class A or B roofs as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Minimum Class A roofing shall be installed in areas designated by this section. Classes A 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.

Section R902.1.3 is amended by revising it to require a minimum Class A roof as follows:

R902.1.3 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 A.

Section R902.2, first paragraph is amended by revising it to allow only Class A treated wood roofs 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.

Section R1001.13 Chimney spark arresters is hereby added as follows:

R1001.13 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

Chapter 44 Referenced Standards is adopted in its entirety and revised as follows:

NFPA 13, 2013 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.3 is hereby revised as follows:

6.8.3 Fire Department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. 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 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. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

Section 8.3.3.1 is hereby revised as follows:

8.3.3.1. 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 3.6.4.7;
2. Residential sprinklers in accordance with the requirements of 8.4.5;
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers;
4. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems.

Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Waterflow Alarms. 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 not requiring a fire alarm system by the California Fire Code 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, whichever is greater. 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) serving normally operated appliances in the residence.

Section 11.1.1.2 is hereby added as follows:

11.1.1.2 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 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent 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 occupancy.

Section 11.2.3.1.1.1 is hereby added as follows:

11.2.3.1.1.1 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 Orange County Fire Authority 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 23.2.1.1 is hereby amended as follows:

Section 23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 42 6

months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

NFPA 13R 2013 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

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 Section 907.2.8 of the 2013 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, whichever is greater. 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) 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 13D 2013 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 4.1.3 is hereby added as follows:

4.1.3 Stock of Spare Sprinklers

Section 4.1.3.1 is hereby added as follows:

4.1.3.1. 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.

Section 4.1.3.2 is hereby added as follows:

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

Section 4.1.3.3 is hereby added as follows:

4.1.3.3 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).

Section 4.1.3.4 is hereby added as follows:

4.1.3.4 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 system piping shall not have a separate control valve unless supervised by a central station, or remote station alarm service.

Section 7.6 is hereby deleted in its entirety and replaced as follows:

7.6 Alarms. Exterior alarm indicating device 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 is subject to final approval by the Fire Code Official. Additional interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater. 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, whichever is greater. 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 under CBC Section 907.2.11 are used to sound an alarm upon waterflow switch activation.

15.04.050 Amendments to the 2013 California Green Building Standards Code.

Section 202 is amended as follows:

Sustainability. Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

Section 4.304.1 is amended as follows:

Irrigation Controllers. Automatic irrigation system controllers for landscaping provided and installed at the time of final inspection and shall comply with the following:

1. Controllers shall be weather- or soil moisture-based irrigation controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects of communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

15.04.060 Amendments to the 2013 California Electrical Code.

Article 310.106(B) Conductor Material is amended by the addition of a second paragraph as follows:

Copper wire shall be used for wiring No. 6 and smaller in all installations. Consideration for use of aluminum wiring can be made by the Building Official for feeder lines only on an individual basis where adequate safety measures can be ensured.

Article 310 Conductors for General Wiring is amended by the addition of Article 310.121 as follows:

310.121 Continuous inspection of aluminum wiring. Aluminum conductors of No. six (6) or smaller used for branch circuits shall require continuous inspection by an independent testing agency approved by the Building Official for proper torque of connections at their termination point.

SECTION 3. Chapter 15.10 is hereby added to the Los Alamitos Municipal Code as follows:

**Chapter 15.10
ADOPTION OF HOUSING LAW REGULATIONS**

15.10.010 Adoption of Housing Law Regulations

- A. The State Housing Law Regulations found in the California Code of Regulations at Title 25, Division 1, Chapter 1, Subchapter 1, are hereby adopted by reference and shall apply as the Housing Law of the City of Los Alamitos, as specified in Section 6 thereof.
- B. In the case of any conflict between the regulations set forth in the Housing Law and the Codes adopted pursuant to Chapters 15.04 and 15.08 of this Code, the latter provisions shall control.

SECTION 4. No Effect on Enforceability. The repealing provisions of the Los Alamitos Municipal Code shall not affect or impair any act done, or right vested or approved, or any proceeding, suit or prosecution had or commenced in any cause before such repeal shall take effect; but every such act, vested right, proceeding, suit, or prosecution shall remain in full force and effect for all purposes as if the applicable provisions of the 1990 Code, or part thereof, had remained in force and effect. No offense committed and no liability, penalty, or forfeiture, either civil or criminal, incurred prior to the repeal or alteration of any applicable provision of the 2007 Code as amended, shall be discharged or affected by such repeal or alteration but prosecutions and suits for such offenses, liabilities, penalties or forfeitures shall be instituted and proceed in all respects as if the applicable provisions of the 2007 Code, as amended, had not been repealed or altered.

SECTION 5. Continuity. To the extent the provisions of this Ordinance are substantially the same as previous provisions of the Los Alamitos Municipal Code, these provisions shall be construed as continuations of those provisions and not as amendments of the earlier provisions.

SECTION 6. Intent to Comply with Laws. The City Council intends this Ordinance to supplement, not to duplicate or contradict, applicable state and federal law and this Ordinance shall be construed in light of that intent.

SECTION 7. Filing with Building Standards Commission. The City Clerk shall file a certified copy of this Ordinance with the California Building Standards Commission.

SECTION 8. CEQA. In accordance with CEQA Guidelines section 15060(c)(2) – the adoption of this Ordinance will not foreseeably result in direct or reasonably foreseeable indirect impacts and is exempt from the provisions of the California Environmental Quality Act and City Clerk shall file such Notice of Exemption with the County Clerk.

SECTION 9. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held out to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsection, sentence clause, phrases or portions be declared valid or unconstitutional.

SECTION 10. Effective Date. This Ordinance shall not take effect until thirty (30) days after its final passage, or January 1, 2014, whichever occurs later.

SECTION 11. Publication by Clerk. The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published within fifteen (15) days of adoption and shall post a certified copy of this Ordinance, including the vote for an against same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

PASSED, APPROVED AND ADOPTED this 2nd day of December, 2013, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Warren Kusumoto, Mayor

ATTEST:

Windmera Quintanar, CMC, City Clerk

APPROVED AS TO FORM:

Cary Reisman, City Attorney

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss
CITY OF LOS ALAMITOS)

I, Windmera Quintanar, CMC, City Clerk of the City of Los Alamitos, do hereby certify that the foregoing Ordinance No. 13-07 was duly introduced and placed upon its first reading at a regular meeting of the City Council on the 21st day of October, 2013, and that thereafter, said Ordinance was duly adopted and passed at a special meeting of the City Council on the 2nd day of December, 2013, by the following vote, to wit:

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

ABSTAIN: COUNCILMEMBERS:

Windmera Quintanar, CMC, City Clerk

EXHIBIT A

FACTUAL FINDINGS ESTABLISHING THE REASONABLE NEED FOR LOCAL AMENDMENTS TO PORTIONS OF THE BUILDING STANDARDS CODE BASED UPON CLIMATIC, GEOLOGICAL AND/OR TOPOGRAPHICAL CONDITIONS

Section 1 of this Exhibit sets forth various findings that apply in Los Alamitos, explaining the various local climatic, geological and/or topographical conditions that necessitate the various changes.

Section 2 of this Exhibit explains which findings apply to which amendments.

Section 1. General Findings

The following findings apply in the City of Los Alamitos, and explain why the changes to the Building Standards Code are necessary because of climatic, geological and/or topographical conditions in the city.

A. Climatic Conditions

1. Hot, dry Santa Ana winds are common to all areas within the City of Los Alamitos and Orange County in general. These winds, which can cause small fires to spread quickly, are a contributing factor to the high fire danger in the area, and create the need for an increased level of fire protection. This added protection will supplement normal fire department response available and provide immediate protection for life and safety of multiple occupants during fire occurrences.
2. Orange County and the City of Los Alamitos are located in a semi-arid Mediterranean type climate which predisposes all fuels, including wood shingles, to rapid ignition and spread of fire. Therefore, there exists a need for additional fire protection measures.

B. Geologic Conditions

1. Orange County and the City of Los Alamitos are located in a highly active seismic area. There are earthquake faults that run along both the northeastern and southwestern boundaries of Orange County. The Newport-Inglewood Fault Zone (NIFZ) which runs through Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude, hypocenter off Newport Beach coast), which took 120 lives, with areas damaged from Laguna Beach to Marina del Rey and inland to Whittier, and poses one of the greatest hazards to lives and property in the nation. Regional planning for reoccurrence is recommended by the State of California, Department of Conservation. There was also an earthquake in December 1989, with the epicenter located near the City of Irvine. The fault on which this quake occurred was unknown prior to this activity. The October 17, 1989, Santa Cruz earthquake resulted in only one major San Francisco fire in the Marina district, but when combined with the 34 other fires and over 500 responses, the department was taxed to its full

capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. If more fires had been ignited by the earthquake, it would have been difficult for the fire department to contain them. Experts predict a major earthquake in our area within the next 50 years. This situation creates the need for both additional fire protection measures and automatic on-site fire protection for building occupants since a multitude of fires may result from breakage of gas and electric lines as a result of an earthquake. As noted by "Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation," page 59, "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe";

2. Traffic and circulation congestion presently existing in the City of Los Alamitos often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.
3. Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene.

The City of Los Alamitos is located in an area subject to a climatic condition of high winds and low humidity. This combination of events creates an environment, which is conducive to rapidly spreading fires. Control of such fires requires rapid response. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally, Section 6, Figure 6-2 of ASCE 7 identifies a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

The City of Los Alamitos is located in the middle of the seismically active area. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is

likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.

4. Untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of burning wooden roofs become flying brands and are carried by the wind to other locations and thereby spread fire quickly. Recent Grand Jury Report findings support this concern.

Additional amendments have been made to Codes. On the recommendation of the Community Development Department, such amendments are hereby found to be either administrative or procedural in nature or concern themselves with subjects not covered in such Codes. The changes made include provisions making each of said Codes compatible with other Codes enforced by the City.

Section 2 – Which Findings Apply to Which Amendments

Amendments to the 2013 Edition of the California Codes are found reasonably necessary based on the climatic and/or geologic conditions cited in Section 1 of this ordinance.

California Building Code Sections	Applicable Findings
403 (403.1,)	A-1, B-2, B-3
	A-1, B-1, B-3
412.7 (412.7.5., 412.7.5.1, 412.7.5.2, 412.7.5.3, 412.7.5.4, 412.7.5.5, 412.7.5.6, 412.7.5.7, 412.7.5.8, 412.7.5.9, 412.7.5.10, 412.7.5.11, 412.7.5.12)	B-1, B-2, B-3
903.2	A-1, A-2, B-2
903.3.5.3	A-1, B-1, B-3
903.4	A-1, A-2, B-1, B-2
904.3.5	A-1, A-2, B-1, B-2
905.4	B-1, B-2, B-3
907.2.13	B-1, B-2, B-3
907.3.1	A-1; B1, B-2, B-3
907.5.2.2	B-1, B-2, B-3
907.6.3.2	B-1, B-2, B-3
907.6.5	A-1, B-1, B-3
Table 1505.1	A-1, A-2, B-2, B-4
15.05.1.3	

1505.5	
1505.7	
1807.1.6	B-1
3109 (3109.4.4.1, 3109.4.4.2)	A-1, B-2
<i>NFPA 13</i>	
6.8.3	A-1, A-2, B-1, B-4
8.3.3.1	A-1, A-2, B-1, B-2, B-4
8.17.1.1.1	A-1, A-2, B-1, B-2
11.1.1.2, 11.2.3.1.1.1	A-1, A-2, B-1, B-2, B-4
23.2.1.1	A-1, A-2, B-1, B-2, B-4
<i>NFPA 13R</i>	
6.16.1,	A-1, A-2, B-1, B-2, B-4
<i>NFPA 13D</i>	
4.1.3 (4.1.3.1, 4.1.3.2, 4.1.3.3, 4.1.3.4),	A-1, A-2, B-1, B-2, B-4
7.1.2	A-1, A-2, B-1, B-2, B-4
7.6	A-1, A-2, B-1, B-2, B-4
8.6.4.2	
<i>NFPA 14</i>	
7.3.1.1	A-1, A-2, B-1, B-2, B-4
<i>NFPA 24</i>	
6.2.1.1, 6.2.11 (5), 6.2.11 (6), 6.2.11 (7)	A-1, A-2, B-1, B-2, B-4
6.3.3	A-1, A-2, B-1, B-2, B-4
10.1.6.3	A-1, A-2, B-1, B-2, B-4
10.3.6.2	A-1, A-2, B-1, B-2, B-4
10.3.6.3	A-1, A-2, B-1, B-2, B-4
10.6.3.1	A-1, A-2, B-1, B-2, B-4
10.6.4	A-1, A-2, B-1, B-2, B-4
Residential Code	
Table R301.2(1)	A-2, B-1, B-2
R 313.1	A-1, A-2, B-1, B-2, B-4
R 313.2	A-1, A-2, B-1, B-2, B-4
R 313.3.6.2.2	A-1, B-1, B-3
R 319	B-2
R403.1.3	A-1, A-2, B-1, B-2, B-4
R405.1	A-1, A-2, B-1, B-2, B-4
Table R602.10.3(3)	A-1
R902.1, R902.1.3	A-1, A-2, B-1, B-2, B-4
R902.2	A-1, A-2, B-1, B-2, B-4
R 1001.13	A-2, B-4
California Electrical code	

310.106.B, 310.121	A-1
Green Building Code	
202	A-1, A-2
4.304.1	A-1, A-2

Note: Changes have been made to the same sections of the NFPA Standards in both the California Building Code and the California Residential Code; the justification is the same for the changes in the Residential Code as set forth for the Building Code

ORDINANCE NO. 13-08

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, DELETING CHAPTER 15.08 OF THE LOS ALAMITOS MUNICIPAL CODE AND ADDING A NEW CHAPTER 15.08 ADOPTING BY REFERENCE THE 2013 EDITION OF THE CALIFORNIA FIRE CODE (TITLE 24, PART 9) WITH APPENDICES AND AMENDMENTS THERETO

THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Findings.

- A. California law requires that on January 1, 2014, all portions of the 2013 Building Standards Code will be effective within the City.
- B. Pursuant to Sections 17922, 17958, 17958.5 and 17958.7 of the California Health and Safety Code, the City may amend the provisions of the Building Standards Code which are reasonably necessary to protect the health, welfare and safety of citizens of Los Alamitos because of "local climatic, geological, or topographical conditions."
- C. The City of Los Alamitos is located in the northwest portion of Orange County and is more prone to high winds and earthquakes than other portions of the state.
- D. The Orange County Fire Authority and the City's Building Official have recommended modifying the 2013 California Fire Code due to local conditions in the City of Los Alamitos.
- E. The findings within Exhibit A are incorporated by reference. Such findings are in accordance with California Health and Safety Code Sections.
- F. In accordance with CEQA Guidelines section 15060(c)(2) – the adoption of California Fire Code will not foreseeably result in direct or reasonably foreseeable indirect impacts and is exempt from the provisions of the California Environmental Quality Act.

SECTION 2. Chapter 15.08 of the Los Alamitos Municipal Code is hereby repealed in its entirety and a new Chapter 15.08 is hereby added to read as follows:

15.08.010 Fire Code Adopted.

- A. The City hereby adopts the California Fire Code, 2013 Edition, as amended by this ordinance and shall constitute the Fire Regulations of the City of Los Alamitos.
- B. One copy of all the California Fire Code and the City's amendments thereto shall be kept on file in the office of the Fire Code Official pursuant to Health and Safety Code Section 18942 (d) (1) and made available for public inspection.

- C. **References in Documents and Continuing Legal Effect.** References to prior editions of the Fire Code or the Municipal Code sections amended herein that are cited on notices issued by the City or the agency enforcing the City's fire regulations or other documents of ongoing or continuing legal effect, including specifically resolutions adopting or imposing fees or charges, until converted, are deemed to be references to the new counterpart 2013 Fire Code or amended Municipal Code sections for the purposes of notice and enforcement. The provisions adopted hereby shall not in any manner affect deposits, established fees or other matters of record which refer to, or are otherwise connected with, ordinances which are specifically designated by number, code section or otherwise, but such references shall be deemed to apply to the corresponding provisions set forth in the 2013 Building Standards Code adopted hereby. Any fee authorized by the above-referenced fire codes which was in effect at the time of the adoption of this ordinance need not be re-adopted by resolution, and shall continue in effect, and remain unadjusted in amount unless and until a resolution is adopted repealing the fee or establishing a different fee.

15.08.020 Enforcement and Inspections.

The 2013 California Fire Code shall be enforced by the Orange County Fire Authority, which shall be operated under the Director of Fire Services of the Orange County Fire Authority. The Director of Fire Services of the Fire Authority may detail such members of the Fire Authority as inspectors as shall be necessary from time to time.

15.08.030 Amendments

The following apply with respect to the 2013 California Fire Code.

Chapter 1 Scope and Administration is adopted in its entirety with the following amendments:

Section 109.4 Violation penalties is hereby amended as follows: Infraction, Misdemeanor, as follows:

109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall 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 either a misdemeanor, infraction or both as prescribed in Section 109.4.2 and 109.4.3. Penalties shall be as prescribed in local ordinance. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Sections 109.4.2 Infraction is hereby added as follows:

109.4.2 Infraction. Except as provided in Section 109.4.3, persons operating or maintaining any occupancy, premises or vehicle subject to this code that shall permit any fire or life safety hazard to exist on premises under their control shall be guilty of an infraction.

Sections 109.4.3 Misdemeanor is hereby added as follows:

109.4.3 Misdemeanor. Persons who fail to take immediate action to abate a fire or life safety hazard when ordered or notified to do so by the Fire Code Official or a duly authorized representative, or who violate the following sections of this code, shall be guilty of a misdemeanor:

104.11.2 Obstructing operations

104.11.3 Systems and Devices

107.5 Overcrowding

109.3.2 Compliance with Orders and Notices

111.4 Failure to comply

305.4 Deliberate or negligent burning

308.1.2 Throwing or placing sources of ignition

310.7 Burning Objects

3104.7 Open or exposed flames

Chapter 2 Definitions is adopted in its entirety with the following amendments:

Sections 202 General Definitions is hereby amended by adding the following definitions:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a high rise building that is not intended to function as a heliport or helistop but is capable of accommodating fire, police, or medical helicopters engaged in emergency operations.

FLOW-LINE. The lowest continuous elevation on a curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

HAZARDOUS FIRE AREA. Includes all areas identified within Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

HIGH-RISE BUILDING. In other than Group I-2 occupancies, "high-rise buildings" as used in this Code:

Existing high-rise structure. A high-rise structure, the construction of which is commenced or completed prior to July 1,

1974.

High-rise structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet above the lowest floor level having building access, except buildings used as hospitals as defined in Health and Safety Code Section 1250.

New high-rise building. A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such buildings shall commence on or before January 1, 1976.

New high-rise structure. means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SAFETY AREA. A defined area surrounding the landing pad that is free of obstructions.

SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

TAKEOFF AND LANDING AREA. The combination of the landing pad centered within the surrounding safety area.

Chapter 3 General Requirements is adopted in its entirety with the following amendments:

Section 304.1.2 Vegetation is hereby amended as follows:

304.1.2 Vegetation. Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49 and OCFA vegetation management guidelines.

Section 305.5 Chimney spark arresters is hereby added as follows:

305.5 Chimney spark arresters. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Chimneys serving outdoor appliances or fireplaces shall be

equipped with a spark arrester. The spark arrester shall meet the requirements of Section 2113.9.2 of the California Building Code.

Section 326 Sky Lanterns or similar devices are hereby added as follows:

326 Sky Lanterns or similar devices. The ignition and/or launching of a Sky Lantern or similar device is prohibited.

Exception: Upon approval of the Fire Code Official, sky lanterns may be used as necessary for religious or cultural ceremonies providing that adequate safeguards have been taken as approved by the Fire Code Official. Sky Lanterns must be tethered in a safe manner to prevent them from leaving the area and must be constantly attended until extinguished.

Chapter 4: Emergency Planning and Preparedness Adopt only the Sections listed below:

1. 401
2. 401.3.4
3. 401.9
4. 402
5. 403
6. 404.6 – 404.7.6
7. 407
8. 408.3.1 – 408.3.2
9. 408.12 – 408.12.3

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

Section 503.2.1 Dimensions is amended as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

Section 505.1 Address Identification is amended as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the Fire Code Official, address

numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies, for all other occupancies the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained (see also CFC 505.1).

Section 510.1 Emergency responder radio coverage is amended as follows:

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction 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 one of the following:

1. An emergency radio system installed in accordance with the local authority having jurisdiction's ordinance.
2. An emergency radio coverage system installed in accordance with Orange County Fire Authority's Emergency Responder Digital Radio Guideline.

Exceptions:

1. Where it is determined by the Fire Code Official that the radio coverage system is not needed.
2. In facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility, the Fire Code Official shall have the authority to accept an automatically activated emergency responder radio coverage system.

Sections 510.2; 510.3; 510.4; 510.5; 510.6 are hereby deleted without replacement:

Chapter 6 Building Services and Systems is adopted in its entirety with the following amendments:

Section 608.1 Scope is hereby amended as follows:

608.1 Scope. Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead acid, nickel cadmium (Ni-Cd) and valve-regulated lead acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion and lithium metal polymer, used for facility standby power, emergency power or uninterruptible power supplies shall comply with this section and Table 608.1. Indoor charging systems for electric carts/cars with more than 50 gallons (189 L) aggregate quantity shall comply with Section 608.10.

Section 608.10 Indoor charging of electric carts/cars is hereby added as follows:

608.10 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

Chapter 7 Fire-Resistance-Rated Construction is adopted in its entirety without amendments.

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

Chapter 9 Fire Protection Systems is adopted in its entirety with the following amendments:

Section 903.2 Where required is hereby amended as follows:

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided when one of the following conditions exists:

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m²) as defined in

Section 202, regardless of fire areas or allowable area, or is more than two stories in height.

2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and one of the following conditions exists:
 - a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202; or
 - b. When an addition exceeds 2000 square feet (186 m²) and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202; or
 - c. An additional story is added above the second floor regardless of fire areas or allowable area.

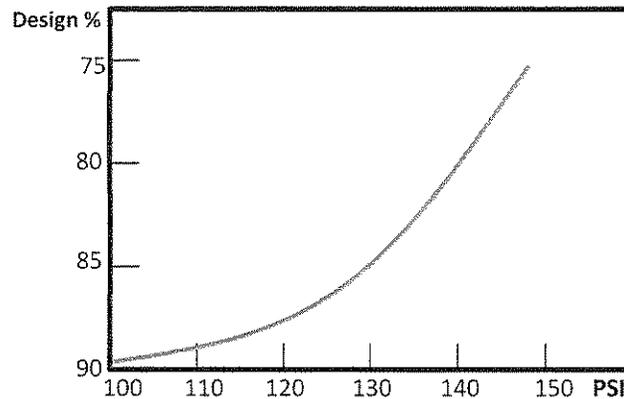
Exception: Group R-3 occupancies shall comply with Section 903.2.8.

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 required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3

TABLE 903.3.5.3
Hydraulically Calculated Systems



Section 903.4 Sprinkler system supervision and alarms is hereby amended by deleting item 3 and 5, and renumbering the Exceptions as follows:

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. Jockey pump control valves that are sealed or locked in the open position.
4. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
5. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Section 905.4 Location of Class I standpipe hose connections is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches above the finished floor.

Section 907.2.13 High-rise buildings is hereby amended as follows:

907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access shall be provided with an

automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.5 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system

Section 907.3.1 Duct smoke detectors is hereby amended as follows:

907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

Exception: In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

Section 907.5.2.2 Emergency voice/alarm communication systems is amended as follows.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code

shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.6.3.2 High-rise buildings is amended as follows.

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes
4. Other approved types of automatic detection devices or suppression systems.

Section 907.6.5 Monitoring is amended as follows

907.6.5 Monitoring. Fire alarm systems required by this chapter or by the California Building Code shall be monitored by an approved supervising station in accordance with NFPA 72, this section, and per Orange County Fire Authority Guideline "New and Existing Fire Alarm & Signaling Systems."

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

Chapter 11 Construction Requirements for Existing Buildings. Adopt only those Sections and Subsections listed below:

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

1106

Chapter 20 Aviation Facilities is adopted in its entirety with the following amendments:

Section 2008 Emergency Helicopter Landing Facility (EHLF) and its subsections are hereby added as follows.

2008.1 General. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 ft above the lowest level of fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the Fire Code Official for use by fire, police, and emergency medical helicopters only.

2008.1.1 Rooftop Landing Pad. The landing pad shall be 50 ft. x 50 ft. or a 50 ft. diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code.

2008.1.2 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and rises outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

2008.1.3 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 ft in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.

2008.1.4 Safety Net. If the rooftop landing pad is elevated more than 30

in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/sf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be slightly dropped (greater than 5 in. but less than 18 in.) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.

2008.1.5 Take-off and Landing Area. The takeoff and landing area shall be free of obstructions and 100 ft x 100 ft. or 100 ft. diameter.

2008.1.6 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

2008.1.7 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 2008.1.7.

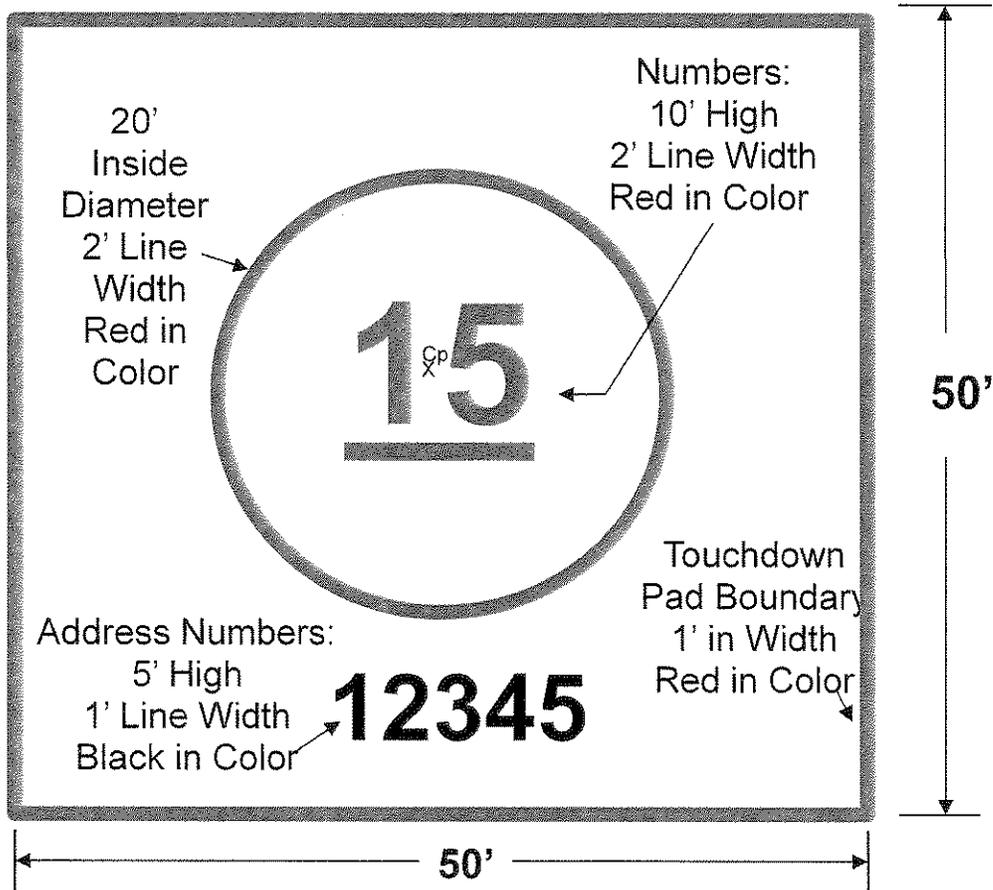
2008.1.8 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with Section 1009.7.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

2008.1.9 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

2008.1.10 Fire extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairway or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the California Fire Code, Section 906.

2008.1.11 EHLF. Fueling, maintenance, repairs, or storage of helicopters is prohibited.

Figure 2008.1.7 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled center number indicates the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be orientated towards the preferred flight (typically facing the prevailing wind)

Chapter 21 Dry Cleaning is adopted in its entirety without amendments.

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

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

Chapter 24 Flammable Finishes is adopted in its entirety without amendments.

Chapter 25 Fruit and Crop Ripening is adopted in its entirety without amendments.

Chapter 26 Fumigation and Thermal Insecticidal Fogging is adopted in its entirety without amendments.

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

Chapter 28 Lumber Yards and Woodworking Facilities is adopted in its entirety with the following amendments:

Section 2801.2 Permit is hereby amended by adding the following statement to the last sentence:

2801.2 Permit. Permits shall be required as set forth in Section 105.6. For Miscellaneous Combustible Storage Permit, see Section 105.6.29.

Section 2808.2 Storage site is hereby amended as follows:

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring products to the site.

Section 2808.3 Size of piles is hereby amended as follows:

2808.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

Section 2808.7 Pile fire protection is hereby amended by adding the following statement to the last sentence:

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

Section 2808.9 Material-handling equipment, is hereby amended by adding the following sentence at the beginning of the section:

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

Section 2808.11 Temperature control, is hereby added as follows:

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

Section 2808.11.1 Pile temperature control, is hereby added as follows:

2808.11.1 Pile temperature control. Piles shall be rotated when the internal temperature readings are in excess of 165 degrees Fahrenheit.

Section 2808.11.2 New material temperature control, is hereby added as follows:

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

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

Chapter 30 Industrial Ovens is adopted in its entirety without amendments.

Chapter 31 Tents and Other Membrane Structures is adopted in its entirety without amendments.

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

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

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

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

Chapter 36 Marinas is adopted in its entirety without amendments.

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

Chapter 49 Requirements for Wildland-Urban Interface Fire Areas is adopted in its entirety without amendments:

Chapter 50 Hazardous Materials – General Provisions is adopted in its entirety with the following amendments.

Section 5001.5.2 Hazardous Materials Inventory Statement (HMIS), is hereby amended by modifying the starting paragraph as follows:

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the Fire Code Official, an application for a permit shall include Orange County Fire Authority's Chemical Classification Packet, which shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises. The Chemical Classification Packet shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems
9. Amount in use-open systems.

Table 5003.1.1(1) Maximum Allowable Quantity per Control Area of Hazardous Materials Posing a Physical Hazard is hereby amended by deleting Footnote K without replacement.

Section 5003.1.1.1 Extremely Hazardous Substances is hereby added as follows:

5003.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

Section 5003.5 Hazard identification signs is hereby amended by modifying the NFPA standard as follows:

5003.5 Hazard identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in the Orange County Fire Authority Signage Guidelines for the specific material contained shall be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored,

dispensed, used or handled in quantities requiring a permit and at specific entrances and locations designated by the Fire Code Official.

Chapter 51 Aerosols is adopted in its entirety without amendments.

Chapter 52 Combustible Fibers is adopted in its entirety without amendments.

Chapter 53 Compressed Gases is adopted in its entirety without amendments.

Chapter 54 Corrosive materials is adopted in its entirety without amendments.

Chapter 55 Cryogenic Fluids is adopted in its entirety with the following amendment.

Section 5503.4.1 Identification signs is hereby amended as follows:

5503.4.1 Identification signs. Visible hazard identification signs in accordance with the Orange County Fire Authority Signage Guidelines shall be provided at entrances to buildings or areas in which cryogenic fluids are stored, handled or used.

Chapter 56 Explosives and Fireworks California Fire Code Chapter 56 is adopted in its entirety with the following amendments:

Section 5601.2 Retail Fireworks is hereby added as follows:

5601.2 Retail Fireworks. The storage, use, sale, possession, and handling of fireworks 1.4G (commonly referred to as Safe & Sane) and fireworks 1.3G is prohibited.

Exception: Fireworks 1.4G and fireworks 1.3G may be part of an electrically fired public display when permitted and conducted by a licensed pyrotechnic operator

Section 5601.3 Seizure of Fireworks is hereby added as follows:

5601.3 Seizure of Fireworks. The Fire Code Official shall have the authority to seize, take, and remove all fireworks stored, sold, offered for sale, used or handled in violation of the provisions of Title 19 CCR, Chapter 6. Any seizure or removal pursuant to this section shall be in compliance with all applicable statutory, constitutional, and decisional law.

Section 5602 Explosives and blasting is hereby added as follows:

5602 Explosives and blasting. Explosives shall not be possessed, kept, stored, sold, offered for sale, given away, used, discharged, transported or

disposed of within wildland-urban interface areas, or hazardous fire areas except by permit from the fire code official.

Section 5608.1 General is hereby amended as follows:

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate audience and pyrotechnic special effects in theatrical and group entertainment productions shall comply with California Code of Regulations, Title 19, Division 1, Chapter 6 Fireworks, the Orange County Fire Authority Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the Fire Code Official.

Section 5608.2 Firing is hereby added as follows:

5608.2 Firing. All fireworks displays shall be electrically fired.

Chapter 57 Flammable and Combustible Liquids is adopted in its entirety with the following amendment.

Section 5704.2.3.2 Label or placard is hereby amended by modifying the NFPA standard as follows:

5704.2.3.2 Label or placard. Tanks more than 100 gallons (379 L) in capacity, which are permanently installed or mounted and used for the storage of Class I, II or III liquids, shall bear a label and placard identifying the material therein. Placards shall be in accordance with the Orange County Fire Authority Signage Guidelines.

Chapter 58 Flammable Gases and Flammable Cryogenic Fluids is adopted in its entirety without amendments.

Chapter 59 Flammable Solids is adopted in its entirety without amendments.

Chapter 60 Highly Toxic and Toxic Materials is adopted in its entirety with the following amendments.

Section 6004.2.2.7 Treatment system is hereby amended by modifying the exceptions as follows:

Exception:

1. Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 kg) water capacity when the following are provided:

- 1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.
- 1.2. For storage, valve outlets are equipped with gas-tight outlet plugs or caps.
- 1.3 For use, a listed and approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 6004.2.2.10.

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

Chapter 62 Organic Peroxides is adopted in its entirety without amendments.

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

Chapter 64 Pyrophoric Materials is adopted in its entirety without amendments.

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

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

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

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

NFPA 13, 2013 Edition, Standard for the Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.3 is hereby amended as follows:

6.8.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. 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 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. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

Section 8.3.3.1 is hereby amended as follows:

8.3.3.1. 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 3.6.4.7
2. Residential sprinklers in accordance with the requirements of 8.4.5
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
4. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Water-flow Alarms. 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 not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each unit. 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, whichever is greater. 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) serving normally operated appliances in the residence.

Section 11.1.1.2 is hereby added as follows:

11.1.1.2 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 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent 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 occupancy.

Section 11.2.3.1.1.1 is hereby added as follows:

11.2.3.1.1.1 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 Orange County Fire Authority 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 23.2.1.1 is hereby amended as follows:

Section 23.2.1.1 Where a water-flow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

NFPA 13R 2013 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

Section 6.16.1 is hereby amended as follows:

6.16.1 A local water-flow alarms 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 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. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each dwelling unit. 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, whichever is greater. 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) 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 13D 2013 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 4.1.3 is hereby added as follows:

4.1.3 Stock of Spare Sprinklers

Section 4.1.3.1 is hereby added as follows:

4.1.3.1. 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.

Section 4.1.3.2 is hereby added as follows:

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

Section 4.1.3.3 is hereby added as follows:

4.1.3.3 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).

Section 4.1.3.4 is hereby added as follows:

4.1.3.4 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 system piping shall not have a separate control valve unless supervised by a central station, proprietary, or remote station alarm service.

Section 7.6 is hereby deleted in its entirety and replaced as follows:

7.6 Alarms. Exterior alarm indicating device 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 is subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces. 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, whichever is greater. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

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 under CBC Section 907.2.11 are used to sound an alarm upon waterflow switch activation.

NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

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

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, 2013 Edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances is hereby amended as follows:

Section 6.2.1.1 is hereby added as follows:

6.2.1.1 The closest upstream indicating valve to the riser shall be painted OSHA red.

Section 6.2.11 (5) is hereby deleted without replacement and (6) and (7) renumbered:

- (5) Control Valves installed in a fire-rated room accessible from the exterior.
- (6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

Section 6.3.3 is hereby added as follows:

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted OSHA red.

Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube 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 10.3.6.2 is hereby amended as follows:

10.3.6.2 All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material, prior to poly-tube, and after installation.

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

Section 10.3.6.3 is hereby added as follows:

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

Section 10.6.3.1 is hereby deleted and replaced as follows:

10.6.3.1 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

Section 10.6.4 is hereby amended as follows:

10.6.4 Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints.

Appendices – Adopt only the following appendices:

Appendix B is adopted in its entirety without amendments.

Appendix BB is adopted in its entirety without amendments.

Appendix C is adopted in its entirety without amendments.

Appendix CC is adopted in its entirety without amendments.

SECTION 3. No Effect on Enforceability. The repealing provisions of the Los Alamitos Municipal Code shall not affect or impair any act done, or right vested or approved, or any proceeding, suit or prosecution had or commenced in any cause before such repeal shall take effect; but every such act, vested right, proceeding, suit, or prosecution shall remain in full force and effect for all purposes as if the applicable provisions of the 1990 Code, or part thereof, had remained in force and effect. No offense committed and no liability, penalty, or forfeiture, either civil or criminal, incurred prior to the repeal or alteration of any applicable provision of the 2007 Code as amended, shall be discharged or affected by such repeal or alteration but prosecutions and suits for such offenses, liabilities, penalties or forfeitures shall be instituted and proceed in all respects as if the applicable provisions of the 2007 Code, as amended, had not been repealed or altered.

SECTION 4. Continuity. To the extent the provisions of this Ordinance are substantially the same as previous provisions of the Los Alamitos Municipal Code, these provisions shall be construed as continuations of those provisions and not as amendments of the earlier provisions.

SECTION 5. Intent to Comply with Laws. The City Council intends this Ordinance to supplement, not to duplicate or contradict, applicable state and federal law and this Ordinance shall be construed in light of that intent.

SECTION 6. Filing with Building Standards Commission. The City Clerk shall file a certified copy of this Ordinance with the California Building Standards Commission.

SECTION 7. CEQA. In accordance with CEQA Guidelines section 15060(c)(2) – the adoption of the California Fire Code will not foreseeably result in direct or reasonably foreseeable indirect impacts and is exempt from the provisions of the California Environmental Quality Act and City Clerk shall file such Notice of Exemption with the County Clerk.

SECTION 8. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held out to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsection, sentence clause, phrases or portions be declared valid or unconstitutional.

SECTION 9. Effective Date. This Ordinance shall not take effect until thirty (30) days after its final passage, or January 1, 2014, whichever occurs later.

SECTION 10. Publication by Clerk. The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published within fifteen (15) days of adoption and shall post a certified copy of this Ordinance, including the vote for and against same, in the Office of the City Clerk, in accordance with Government Code 36933.

PASSED, APPROVED AND ADOPTED THIS 2nd DAY OF DECEMBER, 2013 by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Warren Kusumoto, Mayor

ATTEST:

Windmera Quintanar, CMC
City Clerk

APPROVED AS TO FORM:

Cary Reisman, City Attorney

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss
CITY OF LOS ALAMITOS)

I, Windmera Quintanar, City Clerk of the City of Los Alamitos, do hereby certify that the foregoing Ordinance No. 13-08 was duly introduced and placed upon its first reading at a regular meeting of the City Council on the 21st day of October, 2013 and that thereafter, said Ordinance was duly adopted and passed at a Special meeting of the City Council on the 2nd day of December, 2013, by the following vote, to wit:

AYES: COUNCILMEMBERS:
NOES: COUNCILMEMBERS:
ABSENT: COUNCILMEMBERS:
ABSTAIN: COUNCILMEMBERS:

Windmera Quintanar, CMC
City Clerk

EXHIBIT A

FACTUAL FINDINGS ESTABLISHING THE REASONABLE NEED FOR LOCAL AMENDMENTS TO PORTIONS OF THE FIRE CODE BASED UPON CLIMATIC, GEOLOGICAL AND/OR TOPOGRAPHICAL CONDITIONS

Section 1 of this Exhibit sets forth various findings that apply in Los Alamitos, explaining the various local climatic, geological and/or topographical conditions that necessitate the various changes.

Section 2 of this Exhibit explains which findings apply to which amendments.

Section 1. General Findings

The following findings apply in the City of Los Alamitos, and explain why the changes to the Fire Code are necessary because of climatic, geological and/or topographical conditions in the city.

I. Climatic Conditions

- A. Orange County and the City of Los Alamitos are located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.
- B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange County Fire Authority's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the County.
- C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.

- D. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent.

II. Topographical conditions

- A. Natural; slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change cause by the hills creates the geological foundation on which communities with Orange County is built and will continue to build. With much of the populated flatlands already built upon, future growth will occur in areas with steeper slopes and greater constraints in terrain.
- B. Road circulation features located throughout the County also make amendments reasonably necessary. Located through the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanies with occasional heavy rainfall, causes roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended Fire Department emergency response times that exceed the 5 minute goal.
- C. Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene

These topographical conditions combine to create a situation, which places fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

III. *Geologic Conditions*

Orange County and the City of Los Alamitos are located in a highly active

seismic area. There are earthquake faults that run along both the northeastern and southwestern boundaries of Orange County. The Newport-Inglewood Fault Zone (NIFZ) which runs through Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude, hypocenter off Newport Beach coast), which took 120 lives, with areas damaged from Laguna Beach to Marina del Rey and inland to Whittier, and poses one of the greatest hazards to lives and property in the nation. Regional planning for reoccurrence is recommended by the State of California, Department of Conservation. There was also an earthquake in December 1989, with the epicenter located near the City of Irvine. The fault on which this quake occurred was unknown prior to this activity. The October 17, 1989, Santa Cruz earthquake resulted in only one major San Francisco fire in the Marina district, but when combined with the 34 other fires and over 500 responses, the department was taxed to its full capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. If more fires had been ignited by the earthquake, it would have been difficult for the fire department to contain them. Experts predict a major earthquake in our area within the next 50 years. This situation creates the need for both additional fire protection measures and automatic on-site fire protection for building occupants since a multitude of fires may result from breakage of gas and electric lines as a result of an earthquake. As noted by "Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation," page 59, "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe";

- A. Traffic and circulation congestion presently existing in the City of Los Alamitos often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.
- B. The City of Los Alamitos is located in the middle of the seismically active area. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.
- C. Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of the County contain active or former oil production fields. These

areas contain a variety of naturally occurring gasses, liquids and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary implement appropriate mitigation.

Additional amendments have been made to Codes. On the recommendation of the Community Development Department, such amendments are hereby found to be either administrative or procedural in nature or concern themselves with subjects not covered in such Codes. The changes made include provisions making each of said Codes compatible with other Codes enforced by the City.

Section 2 – Which Findings Apply to Which amendments

Amendments to the 2013 Edition of the California Fire Code is found reasonably necessary based on the climatic, topographical, and/or geologic conditions cited in Section 1 of this resolution and are listed as follows:

CODE SECTION	TITLE (Clarification)	FINDINGS I,II,III
109.3	Violation penalties	Admin
109.3.2	Infraction	Admin
109.3.3	Misdemeanor	Admin
202	General definitions (Flow-Line, Hazardous Fire Area, EHLF)	Admin
305.5	Chimney spark arrestors	I & II
326	Sky Lanterns or similar devices	I & II
505.1	Address identification	N/A
510.1;	Emergency responder radio coverage in new buildings	Admin
510.2	Emergency responder radio coverage in existing buildings	Admin
510.3	Permit Required	Admin
510.4	Technical requirements	Admin
510.5	Installation requirements	Admin
510.6	Maintenance	Admin
608.1	Scope (Battery Systems)	Admin
608.10	Indoor charging of electric carts/cars	III-A
903.2	Where required (Sprinklers)	II & III-B

903.3.5.3	Hydraulically calculated systems	I & II
903.4	Sprinkler system supervision and alarms (of valves)	III-A
905.4	Location of Class I standpipe hose connections	III-A
907.2.13	High-rise buildings (Alarm Systems)	Admin
907.3.1	Duct smoke detectors	III-A
907.5.2.2	Emergency voice/alarm communication system	II & III-A
2008.1. thru 2008.1.11	Emergency Helicopter Landing Facility	II & III-A
2801.2	Permit (Miscellaneous combustible storage)	Admin
2808.2	Storage site	N/A
2808.3	Size of piles	N/A
2808.7	Pile fire protection	N/A
2808.9	Material-handling equipment	N/A
2808.11	Temperature control	N/A
2808.11.2	New material temperature control	N/A
5001.5.2	Hazardous materials inventory statement (HMIS)	Admin
5003.1.1(1)	Maximum allowable quantity per control area	III & III
5003.1.1.1	Extremely hazardous substances	III
5003.5	Hazard identification signs	Admin
5503.4.1	Identification signs (Cryogenic Fluid)	Admin
5610	Firing (Fireworks)	Admin
5611	Seizure of fireworks	Admin
5612	Displays (Fireworks)	
5613	Retail fireworks	
5704.2.3.2	Label or placard (Flammable/Combustible liquid)	Admin
6004.2.2.7	Treatment systems (Highly toxic & toxic material)	II & III
Chapter 50	Reference Standards	
	2010 NFPA 13 (Sprinkler Systems)	Admin, II & III
	2010 NFPA 13-R (Multi-Family Sprinkler Systems)	II & III
	2010 NFPA 13-D (Single Family Sprinkler Systems)	II & III
	2007 NFPA 14 (Standpipe Systems)	II & III
	2010 NFPA 24 (Underground Water Supply Systems)	II & III
	2010 NFPA 72 (Fire Alarm Systems)	Admin & II

City of Los Alamitos

Agenda Report Consent Calendar

November 18, 2013
Item No: 9C

To: Mayor Kusumoto & Members of the City Council

Via: Gregory D. Korduner, Interim City Manager

From: Steven Mendoza, Community Development & Public Works Director

Subject: Adoption of 2013 California Administrative, Building, Residential, Green Building Standards, Plumbing, Mechanical, and Electrical Codes, 2012 International Swimming Pool and Property Maintenance Code and Housing Code (Ordinance No. 13-07) and Adoption of 2013 California Fire Code (Ordinance No. 13-08) with related amendments for both.

Summary: Every three years the City of Los Alamitos must adopt new codes related to construction. The attached Ordinances implement the adoption. This item had first reading on October 21, 2013.

Recommendation:

1. Waive reading in full and authorize reading by title only of Ordinance No. 13-07, and Ordinance No. 13-08; and,
2. Mayor Kusumoto read the title of Ordinance No. 13-07, entitled, "AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, REPEALING CHAPTER 15.04 OF TITLE 15 OF THE LOS ALAMITOS MUNICIPAL CITY CODE AND ADDING A NEW CHAPTER 15.04, ADOPTING BY REFERENCE: VARIOUS PROVISIONS OF THE 2013 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODES (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE CALIFORNIA ADMINISTRATIVE CODE, THE CALIFORNIA BUILDING CODE, THE CALIFORNIA RESIDENTIAL CODE, THE CALIFORNIA GREEN BUILDING STANDARDS CODE, THE CALIFORNIA ELECTRICAL CODE, THE CALIFORNIA MECHANICAL CODE, THE CALIFORNIA PLUMBING CODE, THE CALIFORNIA ENERGY CODE, THE CALIFORNIA HISTORICAL BUILDING CODE, THE CALIFORNIA EXISTING BUILDING CODE; AND THE CALIFORNIA REFERENCED STANDARDS CODE; THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE AS PUBLISHED BY

THE INTERNATIONAL CODE COUNCIL; THE 2012 INTERNATIONAL SWIMMING POOL AND SPA CODE, 2012 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; AND THE STATE HOUSING CODE.”

3. Mayor Kusumoto read the title of Ordinance No. 13-08, entitled, “AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LOS ALAMITOS, CALIFORNIA, DELETING CHAPTER 15.08 OF THE LOS ALAMITOS MUNICIPAL CODE AND ADDING A NEW CHAPTER 15.08 ADOPTING BY REFERENCE THE 2013 EDITION OF THE CALIFORNIA FIRE CODE (TITLE 24, PART 9) WITH APPENDICES AND AMENDMENTS THERETO.” and,
4. Adopt Ordinance No. 13-07 and Ordinance No. 13-08.

Background

The California Building Standards Code is adopted by the State every three years and is incorporated into the California Code of Regulations. These codes are commonly referred to as the California Building Codes. The attached Ordinances adopt the 2013 California Building Codes as well as the State Housing Law and the 2012 International Swimming Pool and Spa Code and the International Property Maintenance Code.

Discussion

Ordinance No. 13-07 amends Chapter 15.04 of the Los Alamitos Municipal Code, “Building Code,” by adopting the 2013 California Administrative Code, California Building Code, California Residential Code, California Plumbing Code, California Electrical Code, California Mechanical Code, California Green Building Standards Code and, California Energy Code with amendments. This Ordinance also adopts the 2012 International Swimming Pool and Spa Code and the International Property Maintenance Code and adopts the State Housing Law as Chapter 15-10 of the Los Alamitos Municipal Code.

Ordinance No. 13-08 amends Chapter 15.08 of the Los Alamitos Municipal Code, “Fire Code,” by adopting the 2013 California Fire Code with amendments. The California Fire Code is also part of the California Building Code.

The 2010 California Building Standards Code remains in effect and is applicable to all plans and specifications, for, and to the construction performed under that building permit where the application for a permit is submitted before December 31, 2013.

Fiscal Impact

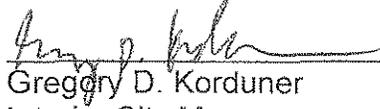
The costs of administering the codes are covered by application fees charged for the various permits issued.

Submitted By:

Approved By:



Steven A. Mendoza
Community Development
& Public Works Director



Gregory D. Korduner
Interim City Manager

- Attachments: 1) *Ordinance No. 13-07 with Findings*
2) *Ordinance No. 13-08 with Findings*