

**BUILDING STANDARDS COMMISSION**

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March 25, 2014

Richard Snider  
Building Official  
City of Lake Forest  
25550 Commercentre Dr., Suite 100  
Lake Forest, CA 92630

RE: Ordinance #258 and 259

Dear Mr. Snider:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on March 6 2014.

Our review finds the submittal to contain two ordinances modifying provisions of the 2013 California Building Standards Code in Title 24, California Code of Regulations (code), and express findings complying with Health and Safety Code §§17958.7 and 18941.5. The code modifications are accepted for filing and are enforceable. This letter attests only to the satisfaction of the cited law for filing of local code amendment supported by an express finding with the Commission. The Commission is not authorized by law to evaluate the merit of the code modification or the express finding.

Local modifications to the code are specific to a particular edition of the code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the code is published.

On a related matter, should your city receive and ratify Fire Protection District ordinances making modifications to the code, be advised that Health and Safety Code §13869.7(c) requires such ratified ordinances and express findings to be filed with the Department of Housing and Community Development, Division of Codes and Standards, State Housing Law Program, rather than this Commission. Also, ordinances making modifications to the energy efficiency standards of the code may require approval from the California Energy Commission pursuant to Public Resources Code §25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

  
Enrique M. Rodriguez  
Associate Construction Analyst

cc: Chron  
Local Filings

**O'Brien, Laurie@DGS**

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**From:** Snider, Richard <rsnider@lakeforestca.gov>  
**Sent:** Thursday, March 06, 2014 7:59 AM  
**To:** OrdinanceFilings@DGS  
**Subject:** Lake Forest adoption  
**Attachments:** 258.pdf; 259.pdf

Please find the attached code adoption ordinances for the City of Lake Forest.

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**ORDINANCE NO. 258**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST CALIFORNIA, AMENDING CHAPTERS 8.02, 8.06, 8.14, 8.16, and 8.20 OF TITLE 8 OF THE LAKE FOREST MUNICIPAL CITY CODE AND ADOPTING BY REFERENCE THE 2013 EDITION OF THE CALIFORNIA BUILDING STANDARDS CODES (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE CALIFORNIA BUILDING CODE, CALIFORNIA RESIDENTIAL CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA MECHANICAL CODE, AND CALIFORNIA PLUMBING CODE**

**WHEREAS**, pursuant to California Government Code section 50022.1 *et seq.* the City of Lake Forest ("City") may adopt by reference the California Building Standards Code, 2013 Edition as provided in Title 24 and 25 of the California Code of Regulations; and

**WHEREAS**, the California Building Standards Commission ("Commission") adopted the 2013 California Building Standards Code, which will come into effect on January 1, 2014; and

**WHEREAS**, California Health & Safety Code sections 17958.5 and 18941.5 authorize cities and counties to modify the California Building Standards Code by adopting more restrictive standards and modifications if such standards and modifications are accompanied by express findings that they are reasonably necessary because of local climatic, geological, or topographical conditions; and

**WHEREAS**, based upon the recommendations of the Building Official, the City Council finds that the proposed amendments to the 2013 California Building Standards Code ("amendments") set forth in this ordinance are more restrictive than the standards adopted by the California Building Standards Commission, would decrease the potential incidence of property damage, injury, and death due to fires and earthquakes, and are reasonable and necessary to mitigate local climatic, geological, or topographical conditions; and

**WHEREAS**, the City held a public hearing on November 19, 2013 at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the California Building Standards Code as amended herein; and

**WHEREAS**, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on November 1, 2013 and November 8, 2013; and

**WHEREAS**, any and all other legal prerequisites relating to the adoption of this Ordinance have occurred.

**THE CITY COUNCIL OF THE CITY OF LAKE FOREST, CALIFORNIA, DOES ORDAIN AS FOLLOWS:**

**SECTION 1.** Findings. To the extent that the following changes and modifications to the 2013 California Building Standards Code are deemed more restrictive than the standards contained in the 2013 California Building Standards Code, thus requiring that findings be made pertaining to local conditions to justify such modifications, the City Council hereby finds and determines that the following findings are reasonably necessary because of local climatic, geologic, or topographic conditions, and adopts the findings provided below to support the modifications to the 2013 California Building Standards.

I. Climatic Conditions

- A. The jurisdiction of Lake Forest is 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, and the requirement to climb 75 feet vertically up flights of stairs 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 caused by the hills creates the geological foundation on which communities within Orange County are built and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and greater constraints in terrain.
- B. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Orange County.
- C. 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. Geological Conditions

The Orange County region is a densely populated area that has buildings

constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size than the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the northeast and southwest boundaries of Orange County. The Newport-Inglewood Fault, located within Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Del Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of Irvine at an unknown fault line. Regional planning for reoccurrence of earthquakes is recommended by the state of California, Department of Conservation.

- A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. 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 of buildings. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in their 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."
- B. Road circulation features located throughout the County also make amendments reasonably necessary. Located throughout the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street, and storm drain design accompanied by 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 emergency response times that exceed the 5 minute goal.

- 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 to implement appropriate mitigation.

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets and the expected infrastructure damage inherent in the seismic zone described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow (water) requirements for a given structures. Additional fire protection is also justified to match the current resources of firefighting equipment and personnel within the Orange County Fire Authority.

#### IV. Roofing

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.

#### V. Swimming Pools

Swimming Pool accidents are a preventable tragedy. The warm, dry climate is conducive to swimming pools which creates a higher probability of child drownings where pools are unprotected.

#### VI. Administrative

This amendment is necessary for administrative clarification, and does not modify a building standard pursuant to California Health & Safety Code Sections 17958, 17985.7 and/or 18941.5. This amendment establishes administrative standards for the effective enforcement of the building standards in the City of Lake Forest.

The findings above are applicable to amendments to the 2013 California Building Code and California Residential Code, as detailed in the following tables:

111

II & III-A

I & II

III-A

IV

V

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III

I & II

III

III

III

III

II

I & II

IV

**SECTION 2.** Chapter 8.02 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

**"Chapter 8.02 California Building Code**

**Article I. General**

**8.02.001 Adoption of California Building Code by reference.**

There is adopted by the Lake Forest City Council for the purpose of prescribing regulations for the erection, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of all buildings and structures California Building Code, 2013 Edition, based on the 2012 International Building Code as published by the International Code Council, including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Building Code of the City of Lake Forest, regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and/or structures in the City.

**8.02.020 Amendments to the California Building Code**

The 2013 California Building Code is hereby amended as follows:

- A. Chapter 1 Division II -- Section 105.2, Building, Item 2 in of the California Building Code shall be amended to read as follows:

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

Exception: Walls and fences less than six (6) feet in height which are required as a condition of project approval are required to have permits.

- B. Chapter 1 Division II – Section 105.3.2 is amended to read as follows:

105.3.2 Expiration of Plan Review. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

- C. Chapter 1 Division II Section 105.5 is amended to read as follows:

Section 105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is

commenced. Before such work can be recommenced a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work; provided, however, that:

1. No changes have been made or will be made in the original plans and specifications for such work; and
2. Such suspension or abandonment has not exceeded one (1) year; and
3. A reendorsement of the compliance of the plans with the applicable regulations, by the Director of Development Services, shall be obtained.

In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee for a period not exceeding one hundred eighty (180) days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Such written request shall be submitted no later than sixty (60) days after expiration of the permit.

D. Chapter 1 Division II Section 109.1 is amended to read as follows:

109.1 Payment of Fees. A fee as established by Resolution of the City Council shall be paid for each permit at time of issuance.

E. Chapter 1 Division II Section 109.2 is amended to read as follows:

109.2 Schedule of Permit Fees. The determination of value or valuation under any of the provision of this Code shall be made by the Building Official. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent equipment.

F. Chapter 1 Division II Section 109.6 is amended to read as follows:

109.6 Fee Refunds. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. No refund will be made for less than \$25.00. Permit and plan check fees will be refunded in their entirety when collected in error.

G. Chapter 1 Division II Sections 109.7 and 109.8 are added to read as follows:

109.7 Plan Review Fees. When submittal documents are required by Section 107.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be established by Resolution of the City Council.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 109.1 and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee shall be charged at the rate shown in the fee schedule.

109.8 Investigation Fees: Work without a Permit.

109.8.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The minimum investigation fee shall be the same as the minimum fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

- H. Chapter 1 Division II – Section 110.7 is hereby added to read as follows:

Section 110.7 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site; the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Building Official.

To obtain a reinspection, the applicant shall file an application therefore in writing upon a form furnished for that purpose and pay the reinspection fee as established by the City Council.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

- I. Chapter 1 Division II – Section 111.3 is hereby amended to read as follows:

111.3 Temporary occupancy. If the Building Official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, he may issue a Temporary Certificate of Occupancy for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure. The application fee for such Temporary Certificate shall be as established by the City Council. The Temporary Certificate of Occupancy may be subject to such conditions as deemed necessary by the Building Official. The violation or failure of any such condition imposed shall be grounds for revocation of such Temporary Certificate of Occupancy.

- J. Chapter 1 Division II – Section 113.4 is hereby added to read as follows:

113.4 Establishment. The City Council shall be the Board of Appeals.

- K. Chapter 1 Division II – Section 114.1 is hereby amended to read as follows:

#### 114.1 Unlawful acts.

It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure, or cause or permit the same to be done in violation of this Code.

Any person, firms, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- L. Chapter 1 Division II – Section 117 is hereby added to read as follows:

#### SECTION 117 UNDERGROUND UTILITIES REQUIRED.

The Building Official shall, as a condition precedent to the issuance of a Building Permit, require all utility services located within the exterior boundary lines of lot or parcel of property to be installed underground if:

1. The property is to be developed with a new or relocated main building;
2. The remodeling, alteration, or addition to an existing main building exceeds fifty (50) percent of the value and/or area of the existing building;
3. A residential building or use is converted to any nonresidential use or purpose.

For purposes of this section, the term "main building" shall mean a building in which is conducted the principal use of the lot or building site on which it is located. If it is determined that practical difficulties, or unreasonable hardships inconsistent with the purposes of this chapter and unique to a particular parcel of property, would result from the literal interpretation of this section, the Building Official may waive, modify, or delay the imposition of any undergrounding requirement imposed pursuant to the section upon written application of any affected property owner. The Building Official shall notify the applicant of his decision in writing by certified mail. If the Building Official determines to delay the installation of required underground utilities, he may require a recorded agreement guaranteeing the future performance of the

work, together with adequate performance security enforceable by the City in the form of a cash deposit, bond, letter of credit, or other instrument or security satisfactory to the City Attorney.

For purposes of this section, appurtenances and associated equipment such as, but not limited to, surface-mounted transformers, pedestal-mounted terminal boxes and meter cabinets, and concealed ducts in an underground system, may be placed above ground.

Any person dissatisfied with the decision of the Building Official may file an appeal pursuant to Section 2.04.100 to 2.04.130 of the Lake Forest Municipal Code.

The owner or developer of the property is responsible for complying with requirements of this section and shall provide all necessary facilities on the property to receive such service from the supplying utilities.

- M. Section 202 Definitions is hereby revised by adding "Approach-Departure Path," "Emergency Helicopter Landing Facility (EHLF)," "Safety Area," and "Takeoff and Landing Area" and revising "High-Rise Structure" 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 helistop but is capable of accommodating fire 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 above the lowest floor level having building access (see Section 403), except buildings used as hospitals as defined in 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.

- N. Section 403 HIGH-RISE BUILDINGS AND GROUP I-2 OCCUPANCIES HAVING OCCUPIED FLOORS LOCATED MORE THAN 75 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS is

hereby revised as follows:

**Section 403 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**

O. Section 403.1 Applicability is hereby revised as follows:

403.1 Applicability. New high-rise buildings and Group I-2 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 55 feet above the lowest level of fire department vehicle access shall comply with Sections 403.2 through 403.6.

P. Section 412.7 is hereby amended by adding Sections 412.7.6 through 412.7.6.13 as follows:

412.7.6. Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility (EHLF) shall be constructed as specified in Section 412.7.6.1 through 412.7.6.12.

412.7.6.1 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 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.

412.7.6.2 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.

412.7.6.3 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.

412.7.6.4 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.

412.7.6.5 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/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 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.

412.7.6.6 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.

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

412.7.6.8 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 412.7.6.8.

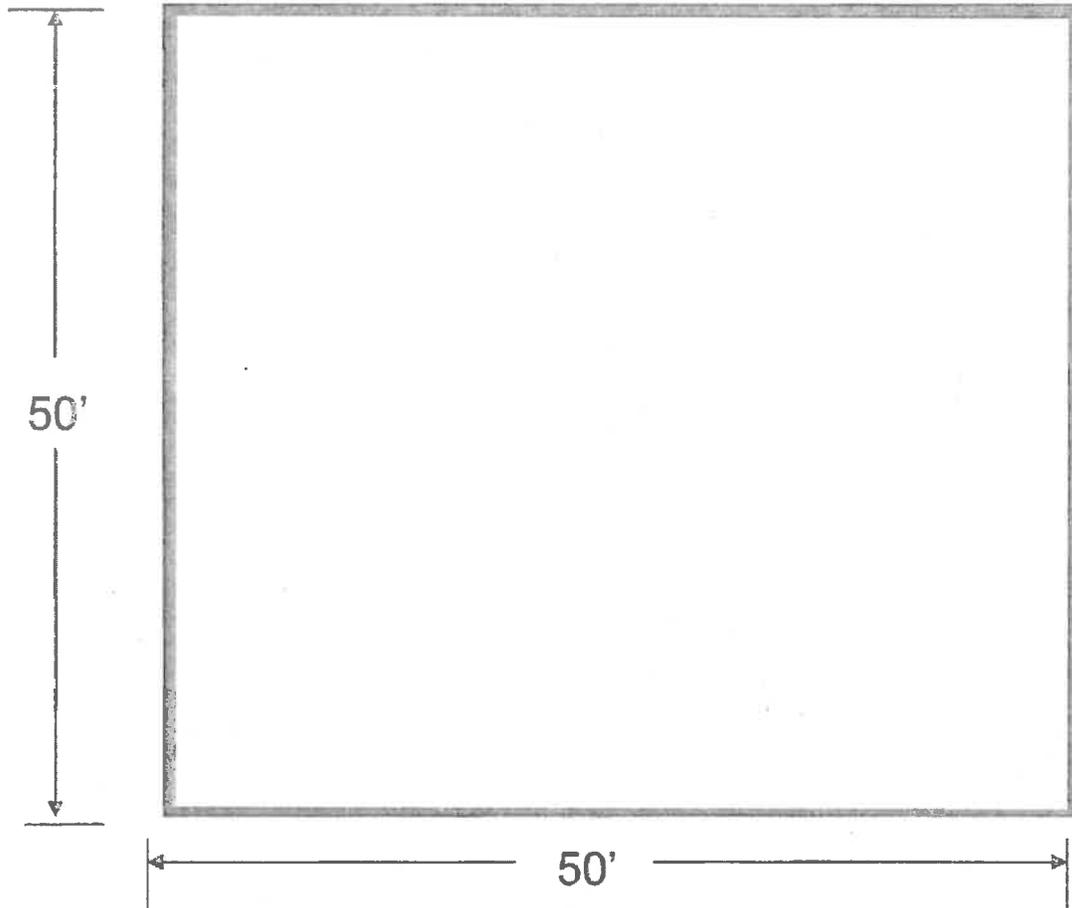
412.7.6.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the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

412.7.6.10 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.

412.7.6.11 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 California Fire Code Section 906.

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

Figure 412.7.6.8 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).

Q. Adopt Chapter 7A Materials and Construction Methods for Exterior Wildfire Exposure in its entirety with the following amendments:

710A.3.2 Detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this section.

710A.4 Requirements. Accessory structures shall be constructed of non-combustible or ignition-resistant materials.

- R. Adopt Chapter 9 of the California Building Code, Fire Protection Systems, in its entirety with the following amendments:

SECTION 903.2 Where required is hereby revised as follows:

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

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 502.1, exceeds 5,000 square feet (465 m<sup>2</sup>), 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 Section 903.2.8.

- S. SECTION 903.2.8, Group R is hereby revised as follows:

[F] 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area 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 any existing building when the floor area of the Alteration within any two year period exceeds 50% of area of the existing structure and the building area exceeds 5,500 ft<sup>2</sup>. When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

Exceptions to existing buildings requirement:

1. Detached buildings containing two or less dwelling units with less than 5,500 ft<sup>2</sup> (279 m<sup>2</sup>) (including attached U-occupancy garages),
2. Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the second floor, and less than 5,500 square feet.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or

mentally retarded, and building or portions thereof housing such children are not more than two stories in height, and thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.

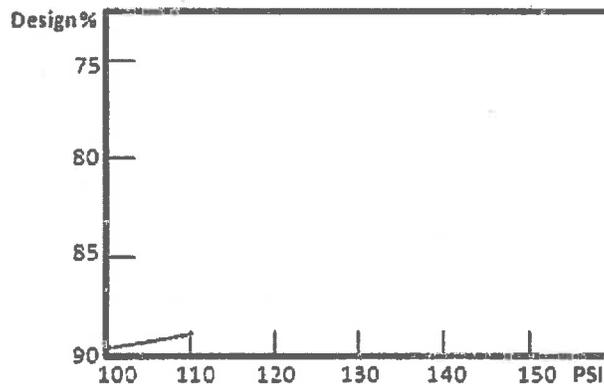
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

T. 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**



1.

U. Section 903.4 Sprinkler system supervision and alarms, is hereby revised 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.

V. Section 905.4 Location of Class I standpipe hose connections, is hereby amended by adding items 7 as follows:

905.4 Location of Class I standpipe hose connections, is hereby revised to include number 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.

W. Section 907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of the fire department vehicle access is hereby revised as follows:

907.2.13 High-rise buildings and Group I-2 occupancies having floors located more than 55 feet above the lowest level 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 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 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 general occupant notification system shall be broadcast by the emergency voice/alarm communication system

Y. 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.

Z. Section 907.5.2.2 Emergency voice/alarm communication system is revised as follows.

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 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 Section 1002.1.
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.

AA. Section 907.6.3.2 High-rise buildings is revised as follows.

907.6.3.2 High-rise buildings. 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, 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.

BB. Section 907.6.5 Monitoring is revised 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".

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

**TABLE 1505.1**

**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

DD. Section 1505.1.3 is hereby amended to read 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 3109.4.4.1 is hereby amended to add the following definition:

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

EE. Section 3109.4.4.2 is hereby amended by replacing the first paragraph in its entirety to read as follows:

Section 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 1) the construction of a new private pool or spa at a residence; 2) a remodel of a private pool or spa at a residence; or 3) the remodel or addition to a residence which results in direct access from the house to the swimming pool, 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:"

FF. Chapter 35 Referenced Standards is hereby adopted and revised as follows:

NFPA 13, 2013 Edition, Standard for the 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:

- A. Quick-response type as defined in 3.6.4.7
- B. Residential sprinklers in accordance with the requirements of 8.4.5
- C. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- D. 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. 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 revised 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 revised 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 revised 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 revised 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 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.

**SECTION 3.** Chapter 8.06 of the Lake Forest Municipal Code is hereby added in its entirety to read as follows:

“Chapter 8.06 California Residential Code

**8.06.001 Adoption of California Residential Code**

California Residential Code, 2013 Edition, based on the 2012 International Residential Code as published by the International Code Council, including Chapter 1 and Appendix O, together with the amendments provided in this chapter, is hereby adopted by reference as the Residential Code of the City of Lake Forest, regulating the construction of one- and two-family residential dwellings within the City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

**8.06.020 California Residential Code amended.**

A. Chapter 1 Division II Section R105.2, Building, Item 2 in of the California Residential Code shall be amended to read as follows:

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

Exception: Walls and fences less than six (6) feet in height which are required as a condition of project approval are required to have permits.

B. Chapter 1 Division II Section R105.3.2 of the California Residential Code is amended to read as follows

R105.3.2 Time Limit of Application. Time limit of application. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

C. Chapter 1 Division II Section R105.5 of the California Residential Code is amended to read as follows:

R105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work can be recommenced a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work; provided, however, that:

1. No changes have been made or will be made in the original plans and specifications for such work; and
2. Such suspension or abandonment has not exceeded one (1) year; and
3. A reendorsement of the compliance of the plans with the applicable regulations, by the Director of Development Services, shall be obtained.

In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee for a period not exceeding one hundred eighty (180) days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Such written request shall be submitted no later than sixty (60) days after expiration of the permit.

- D. Chapter 1 Division II Section R108.1 of the California Residential Code is amended to read as follows:

R108.1 Payment of Fees. A fee as established by Resolution of the City Council shall be paid for each permit at time of issuance.

- E. Chapter 1 Division II Section R108.2 is amended to read as follows:

R108.2 Schedule of Permit Fees. The determination of value or valuation under any of the provision of this Code shall be made by the Building Official. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent equipment.

F. Chapter 1 Division II Section R108.5 is amended to read as follows:

R108.5 Fee Refunds. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. No refund will be made for less than \$25.00. Permit and plan check fees will be refunded in their entirety when collected in error.

G. Chapter 1 Division II Section R108.7 is added to read as follows:

R108.7 Plan Review Fees. When submittal documents are required by Section R106.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be established by Resolution of the City Council.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 109.1 and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee shall be charged at the rate shown in the fee schedule.

H. Chapter 1 Division II Section R108.8 is added to read as follows:

R108.8 Investigation Fees: Work without a Permit.

R108.8.1 Investigation. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

R108.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The minimum investigation fee shall be the same as the minimum fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

- H. Section R110.4 of the California Residential Code is amended to read as follows:

R110.4 Temporary Certificate. If the Building Official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, he may issue a Temporary Certificate of Occupancy for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure. The application fee for such Temporary Certificate shall be as established by the City Council. The Temporary Certificate of Occupancy may be subject to such conditions as deemed necessary by the Building Official. The violation or failure of any such condition imposed shall be grounds for revocation of such Temporary Certificate of Occupancy.

- I. Section R109.5 is hereby added to the California Residential Code is to read as follows:

Section R109.5 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site; the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Building Official.

To obtain a reinspection, the applicant shall file an application therefore in writing upon a form furnished for that purpose and pay the reinspection fee as established by the City Council.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

- F. Section R112.1 of the California Residential Code is amended to read as follows:

R112.1 General. The City Council shall be the Board of Appeals.

- G. Section R113.1 of the California Residential Code is amended to read as follows:

R113.1 Violations.

It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any building or structure, or cause or permit the same to be done in violation of this Code.

Any person, firms, or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- I. Section R202 of the California Residential Code is amended to read as follows:

Section 202 Definitions is hereby revised by adding "Hazardous Fire Area" as follows:

**HAZARDOUS FIRE AREA.** Includes all areas identified within California Fire Code 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.

- J. Section R301.9 Development on or Near Land Containing or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors, of the California

Residential Code, is hereby added as follows:

R301.9 Development On Or Near Land Containing Or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors. The fire code official may require the submittal for approval of geological studies, evaluations, reports, remedial recommendations and/or similar documentation from a state-licensed and department-approved individual or firm, on any parcel of land to be developed which has, or is adjacent to, or within 1,000 feet (304.8 m) of a parcel of land that has an active, inactive, or abandoned oil or gas well operation, petroleum or chemical refining facility, petroleum or chemical storage, or may contain or give off toxic, combustible or flammable liquids, gases or vapors.

- K. Section R301.10 Fuel Modification Requirements for New Construction, of the California Residential Code, is hereby added as follows:

R301.10 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of OCFA Vegetation Management Guidelines currently in use at the time

- L. Section R309.6 Fire sprinklers attached garages, and carports with habitable space above, of the California Residential Code, is hereby amended by modifying the exception as follows:

Exception: An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing carports and/or garages that do not have an automatic fire sprinkler system installed unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

- M. Section R313.1 Townhouse automatic fire sprinkler systems, of the California Residential Code, is hereby amended by modifying the exception as follows:

Exception: An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic fire sprinkler system installed unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

- N. Section R313.2 One- and two-family dwellings automatic fire sprinkler systems, of the California Residential Code, is hereby amended by modifying the exception as follows:

Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic sprinkler system unless a sprinkler system is required in accordance with California Fire Code Section 903.2.8.

O. 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.

P. Section R319 Site Address is hereby revised 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.

Q. Section R327.1.6 Fuel Modification Requirements for New Construction is hereby added as follows:

R327.1.6 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in hazardous fire areas shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
- 2.1 The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.

3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Vegetation Management Guidelines.
  4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from the fire code official.
  5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.
- R. 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. A minimum Class A or B roofing shall be installed in areas designated by this section. Classes A or B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
  2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.
  3. Class A roof assemblies include minimum 16 oz/ft<sup>2</sup> copper sheets installed over combustible decks.
- S. Section R902.1.3 is amended by revising it to require a minimum Class B 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 B.

- T. Section R902.2, first paragraph is amended by revising it to allow only Class A or B 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.

- U. Section R1001.13 Chimney spark arresters, of the California Residential Code, 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.

#### **8.06.040 California Residential Code Chapter 44 Referenced Standards amended.**

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

NFPA 13, 2010 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 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 revised 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 revised 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 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 4.1.5.2** 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 revised 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.

**8.06.050 Appendix O Vehicular Gates** is adopted with only the section indicated below:

**SECTION AO103.3 Vehicular gates or other barriers across required fire apparatus access roads** is added as follows:

**AO103.3 Vehicular gates or other barriers across required fire apparatus access roads.** The installation of gates or other barriers across a required fire apparatus access road shall comply with the requirements set forth in the 2013 California Fire Code Section 503.6.

**SECTION 4.** Chapter 8.14 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

#### **“Chapter 8.14 California Electrical Code**

##### **8.14.001 Adoption of California Electrical Code**

California Electrical Code, 2013 Edition, based on the 2011 National Electrical Code as published by the National Fire Protection Association, including Article 89, together with the amendments provided in this chapter, is hereby adopted by reference as the Electrical Code of the City of Lake Forest, regulating all installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

##### **8.14.010 California Electrical Code amended.**

A. Section 89.108.5.2 is hereby added to the California Electrical Code to read as follows:

#### 89.108.5.2 Enforcement.

This Code is intended to be suitable for mandatory application by the City of Lake Forest over electrical installations within incorporated territory of the City. The Building Official of the City of Lake Forest shall have the authority for enforcement of the Code and the responsibility for making interpretations of the rules, for deciding upon the approval of equipment, materials and wiring methods as set forth in the California Electrical Code, and for the granting the special permission contemplated in a number of the rules.

The Building Official may waive specific requirements in this Code or permit alternate methods, where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

This Code may require new products, constructions, or materials which may not yet be available at the time the Code is adopted. In such event, the Authority Having Jurisdiction may permit the use of the products, constructions, or materials which comply with the most recent previous edition of this Code adopted by the jurisdiction.

- B. Section 89.108.4.2 of the California Electrical Code is amended to read as follows:

#### 89.108.4.2 Fees.

- (a) Fees shall be established by resolution of the City Council.
- (b) The fees required in this section must be paid to the Building Official for each electrical installation for which a permit is required by this Code.
- (c) No permit shall be issued to any person, firm or corporation unless all fees for permits or additions to permits are paid in full. When an electrical plan is required to be submitted, a plan check fee shall be paid at the time of submittal.
- (d) Failure to take out a permit and to pay fees before commencing work shall be deemed evidence of violation of the provisions of this Code. Double the amount of permit fees shall be assessed for work commenced before a permit is issued.
- (e) Whenever any work for which a permit is required under the provisions of this Code has been commenced without the authorization of such permit, a special investigation may be required before a permit will be issued for such work. In addition to the regular permit fee and any penalty fee, the said special investigation fee which may be collected shall be established by resolution of the City Council.

- (f) Fees for annual permits shall be paid at the time such permits are issued. In addition, fees for all new work installed under such permit since the date of the previous inspection shall be paid, in accordance with the fee schedule, at the time the annual permit is issued.
- (g) Fees for additional inspections.
  - (1) Each permit shall be entitled to one (1) reinspection without additional charge, in addition to the required number of inspections established by the Building Official. On jobs which may be completely inspected on one (1) inspection trip, two (2) inspection trips will be allowed without additional charge for said second trip.  
  
Exception: The number of inspection trips will not be limited on progress jobs; provided, however, that only one (1) inspection will be permitted for checking a correction. For the purpose of this section, progress jobs are those where circumstances beyond the control of the installer make it impossible for the electrical work to be completed at any specific time.
  - (2) If more inspection trips than specified in paragraph (g)(1) above are required due to the fault or error on the part of the installer or his employees, an additional fee as established by resolution by the City Council may be required of the installer for each additional inspection trip.
- (h) Refunds.
  - (1) The Building Official shall collect such fees as are provided to be paid by this Code. He shall make no refunds on fees collected amounting to twenty-five dollars (\$25.00) or less, or on any plan checking fee or on any permit fee where one (1) year has elapsed from the date of issuance.
  - (2) Refunds may be made to the permittee in the amount equal to eighty (80) percent of the permit fee paid where work authorized by said permit has not commenced.
  - (3) Refunds may be made in an amount equal to one hundred (100) percent of the amount paid for each permit when a permit has been inadvertently issued outside the jurisdiction of the City or duplicate permits have been issued and two (2) fees have been collected for the same work.

C. Section 89.108.11 is hereby added to the California Electrical Code to read as follows:

89.108.11 Penalties. Any person, firm or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued or permitted; and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment."

**SECTION 5.** Chapter 8.16 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

### **"Chapter 8.16 California Plumbing Code**

#### **8.16.001 Application of California Plumbing Code**

California Plumbing Code, 2013 Edition, based on the 2012 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials, including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Plumbing Code of the City of Lake Forest, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City, of which code not less than one (1) copy has been made and is now filed in the office of the City Clerk; and the same is adopted and incorporated as fully as is set forth at length herein.

Whenever the term "Authority Having Jurisdiction" is used in this Code, it shall mean the Building Official of the City.

Whenever the terms "Building Official" and "assistants" are used in this Code, they shall be construed to mean the Development Services Director for the City of Lake Forest or her designated representative.

#### **8.16.010 California Plumbing Code amended.**

- A. Sections 102.4 and 102.5 of Chapter 1 of the Plumbing Code, Violation and Penalties, are hereby combined to form new Section 102.4, which shall read as follows:

##### **Section 102.4 Violation and Penalties.**

Any person, firm or corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed,

continued or permitted; and upon conviction of any such violation such person shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment.

- B. Section 103.4, Fees, of Chapter 1 of the Plumbing Code is hereby amended to read as follows:

#### Section 103.4 Fees

103.4 Fees. Fees shall be assessed in accordance with the provisions of this section and as set forth by Resolution of the City Council.

Failure to pay fees and obtain a permit before commencing work shall be deemed a violation of this Code, except when it can be proven to the satisfaction of the Building Official that an emergency existed which made it impractical to first obtain the permit. A violation shall result in an assessment of double permit fees for work done prior to permit issuance. Payment of a double fee shall not relieve any person from fully complying with the requirements of this Code nor from any other penalties prescribed herein.

For the purpose of this section, a sanitary plumbing outlet on or to which a plumbing fixture or appliance may be set or attached shall be construed to be a fixture. Fees for reconnection and retest of existing plumbing systems in relocated buildings shall be based on the number of plumbing fixtures, gas systems, water heaters, or other appliances involved.

When a permit has been obtained to connect an existing building or existing work to the public sewer or to a new private disposal facility, backfilling of private sewage disposal facilities abandoned consequent to such connection is included in the building sewer permit.

- C. Section 103.4.4 of Chapter 1 of the Plumbing Code is hereby amended to read as follows:

#### Section 103.4.4 Fee Refund.

103.4.4.1 Refunds. Permit fee refunds will be made in an amount equal to eighty (80) percent where work authorized by said permit has not commenced; except that no refund will be made for less than twenty-five dollars (\$25.00), and no refund will be made if one (1) year has elapsed from the date of permit issuance.

103.4.4.2 Plan check fee refunds will be made in an amount equal to eighty (80) percent if the request for such refund is received before the commencement of the first complete plan check; except that no refund will be made for less than twenty-five dollars (\$25.00), and no refund will be made if one (1) year has elapsed from the date of plan check fee payment.

103.4.4.3 Permit and plan check fees will be refunded in their entirety when inadvertently paid for a project outside the jurisdiction of the City or as duplicate fees, except that no refund will be made if one (1) year has elapsed from the date of payment.

**SECTION 6.** Chapter 8.20 of the Lake Forest Municipal Code is hereby amended and restated in its entirety to read as follows:

**“Chapter 8.20 California Mechanical Code**

**8.20.001 Adoption of California Mechanical Code**

California Mechanical Code, 2013 Edition, based on the 2012 Uniform Mechanical Code as published by the International Association Plumbing and Mechanical Officials; including Chapter 1, together with the amendments provided in this chapter, is hereby adopted by reference as the Mechanical Code of the City of Lake Forest, regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat producing appliances, of which Code not less than one (1) copy has been made and is now filed in the office of the Clerk of the City; and the same is adopted and incorporated by reference as if set forth at length herein.

**8.20.010 Section 114 amended.**

A. Section 114.1, General, of the Mechanical Code is hereby amended to read as follows:

114.1 General. Fees as established by Resolution of the City Council shall be assessed in accordance with the provisions of this section.

B. Section 114.2, Permit fees, of the Mechanical Code is hereby amended to read as follows:

114.2 Permit fees. A fee as established by Resolution of the City Council shall be paid for each permit at the time of issuance. Failure to pay fees and obtain a permit before commencing work shall be deemed a violation of this Code except when it can be proven to the satisfaction of the Building Official that an emergency existed which made it impractical to first obtain the permit. A

violation shall result in an assessment of double permit fees for work done prior to permit issuance. Payment of a double fee shall not relieve any person from fully complying with the requirements of this Code nor from any other penalties prescribed herein.

- C. Section 114.4, Expiration of plan review, of the Mechanical Code is hereby amended to read as follows:

114.4 Expiration of plan review. Any application for a permit for any proposed work shall be deemed to have been abandoned within one calendar year following the date of application, unless a permit is issued, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. No extensions shall be allowed. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay the required fees.

- D. Section 114.6, Fee refunds, of the Mechanical Code is hereby amended to read as follows:

114.6 Fee refunds.

114.6.1 Permit fee refunds will be made in an amount equal to eighty (80) percent where work authorized by said permit has not commenced, except that no refund will be made for less than twenty-five dollars (\$25.00), and no refund will be made if one (1) year has elapsed from the date of permit issuance.

114.6.2 Plan check fee refunds will be made in an amount equal to eighty (80) percent if the request for such refund is received before the commencement of the first complete plan check, except that no refund will be made for less than twenty-five dollars (\$25.00), and no refund will be made if one (1) year has elapsed from the date of plan check fee payment.

114.6.3 Permit and plan check fees will be refunded in their entirety when inadvertently paid for a project outside the jurisdiction of the City of Lake Forest or as duplicate fees, except that no refund will be made if one (1) year has elapsed from the date of payment."

**SECTION 7.** Upon the effective date of this Ordinance, all former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance of the codes herein adopted by reference and any other ordinance in conflict herewith are hereby repealed and declared to be of no further force and effect.

**SECTION 8.** The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

**SECTION 9.** If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance for any reason is held 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, subdivision, sentence, clause phrase or portion thereof, irrespective of the fact that any one or more sections subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

**SECTION 10.** Adoption of this Ordinance includes the whole of each Uniform Standards Code, together with accumulative supplements and associated standards referenced therein, including such portions as may be added by the provisions of this chapter, and except such portions as may be deleted or modified by the provisions of this chapter. One copy of said codes has been and is on file in the office of the Clerk of the Council of the City of Lakewood Forest.

**SECTION 11.** The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published at least five (5) days prior to the meeting at which the proposed Ordinance is to be adopted and shall post a certified copy of the proposed Ordinance in the Office of the City Clerk, and within fifteen (15) days of the adoption, shall post a certified copy of this Ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

**SECTION 12.** This ordinance shall be effective on January 1, 2014, which is to be no less than thirty days after its adoption

**PASSED, APPROVED, AND ADOPTED** this 10th day of November, 2013.

SCOTT VOIGTS  
MAYOR

ATTEST:

*Stephan*  
ST\_PHAN  
CITY CLERK

*Smith*  
SMITH, CMC

APPROVED AS TO FORM:

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Ordinance No 258 was duly  
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ST PHANIE D SMITH, CMC  
CITY CLERK

## CERTIFICATION STATEMENT

I, Stephanie D. Smith, CMC, City Clerk of the City of Lake Forest, do hereby certify that the foregoing ordinance is a true and correct copy of Ordinance No. 258, passed by the people of the City of Lake Forest as declared by the City Council on the day and year set forth above, and published pursuant to law



STEPHANIE D, SMITH, CMC  
CITY CLERK

**ORDINANCE NO. 259**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST CALIFORNIA, AMENDING TITLE 8, BY REPEALING CHAPTER 8.24 OF THE LAKE FOREST MUNICIPAL CODE AND BY ADDING A NEW CHAPTER 8.24, ADOPTING BY REFERENCE THE 2013 CALIFORNIA FIRE CODE, WITH APPENDICES AND AMENDMENTS THERETO**

**WHEREAS**, pursuant to California Government Code Section 50022.1 *et seq.* the City of Lake Forest ("City") may adopt by reference the 2013 California Fire Code, based on the 2012 International Fire Code, with errata, published by the International Code Council (ICC), as adopted by the State of California pursuant to Title 24, Part 9 of the California Code of Regulations; and

**WHEREAS**, California Health & Safety Code sections 17958.7 and 18941.5 authorize cities to adopt the codes contained in Title 24 of the California Code of Regulations with changes and modifications determined to be reasonably necessary because of local climatic, topographic, or geologic conditions; and

**WHEREAS**, the City desires to adopt the 2013 California Fire Code, based on the 2012 International Fire Code, with errata, published by International Code Council (ICC), as adopted by Title 24, Part 9 of the California Code of Regulations ("Fire Code") with necessary amendments to assure the Code is tailored to the particular fire protection needs of the City as required by local climatic, topographic, and geologic conditions and to assure that a maximum level of fire protection is provided to residents, businesses, and other occupants; and

**WHEREAS**, the City held a public hearing November 19, 2013 at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the Fire Code as amended herein; and

**WHEREAS**, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on November 1, 2013 and November 8, 2013; and

**WHEREAS**, any and all other legal prerequisites relating to the adoption of this Ordinance have occurred.

**THE CITY COUNCIL OF THE CITY OF LAKE FOREST, CALIFORNIA,  
DOES ORDAIN AS FOLLOWS:**

**SECTION 1. Findings.** The City Council hereby finds that the proposed amendments to the 2013 California Fire Code are reasonably necessary because of local climatic, geologic, or topographic conditions, and adopts the findings provided below to support the modifications to the 2013 California Fire Code.

I. Climatic Conditions

- A. The jurisdiction of Lake Forest is 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, and the requirement to climb 75 feet vertically up flights of stairs 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 caused by the hills creates the geological foundation on which communities within Orange County are built and will continue to build. With much of the populated flatlands already built upon, future growth will occur on steeper slopes and greater constraints in terrain.
- B. Traffic and circulation congestion is an artificially created, obstructive topographical condition which is common throughout Orange County.
- C. 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. Geological Conditions

The Orange County region is a densely populated area that has buildings constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size than the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the northeast and southwest boundaries of Orange County. The Newport-Inglewood Fault, located within Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Del Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of Irvine at an unknown fault line. Regional planning for reoccurrence of earthquakes is recommended by the state of California, Department of Conservation.

- A. Previous earthquakes have been accompanied by disruption of traffic flow and fires. 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 of buildings. The October 17, 1989, Santa Cruz earthquake resulted in one major fire in the Marina District (San Francisco). When combined with the 34 other fires locally and over 500 responses, the department was taxed to its fullest capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. This situation creates the need for both additional fire protection and automatic on-site fire protection for building occupants. State Department of Conservation noted in their 1988 report (Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, page 59), "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe."

- 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 emergency response times that exceed the 5 minute goal.
- 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 to implement appropriate mitigation.

Due to the topographical conditions of sprawling development separated by waterways and narrow and congested streets, and the expected infrastructure damage inherent in seismic zone described above, it is prudent to rely on automatic fire sprinkler systems to mitigate extended fire department response time and keep fires manageable with reduced fire flow (water) requirements for a given structure. Additional fire protection is also

justified to match the current resources of firefighting equipment and personnel within the Orange County Fire Authority.

IV. Administrative

This amendment is necessary for administrative clarification, and does not modify a building standard pursuant to California Health & Safety Code Sections 17958, 17985.7 and/or 18941.5. This amendment establishes administrative standards for the effective enforcement of the building standards in the City of Lake Forest.

The findings above are applicable to amendments to the 2013 California Fire Code as follows and the International Fire Code, 2012 Edition as follows:

202	Admin
	I & II
307.6	I & II
	I & II
319	III

	vapors	
320	Fuel modification requirements for new construction	N/A
321	Clearance of brush or vegetation growth from roadways	N/A
322	Unusual circumstances	N/A
323	Use of equipment	N/A
323.1	Spark arrestors	N/A
24	Restricted entry (In hazardous are	N/A
325	Trespassing on posted property	N/A
326	Sky Lanterns or similar devices	I & II
503.2.1	Dimensions (Fire Lanes)	N/A
Clarity to VHFSZ		
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		Admin
510.5		Admin
510.6		Admin
608.1		Admin
608.10		III-A
903.2		II & III-B
903.2.8		II-B & III-B
903.3.5.3		I & II
903.4		III-A
905.4		III-A
907.2.13		Admin
907.3.1		III-A
907.5.2.2		II & III-A

N/A

N/A

III

***NOTE: Those indicated as N/A or "Admin" represent wording changes which do not constitute a new local amendment for which a finding must be made.***

SECTION 2. The following sections within Chapter 8.24 of Title 8 of the Lake Forest Municipal Code are hereby amended as follows:

Sec. 8.24.010. Fire Code Adopted.

Except as hereinafter provided, the 2013 California Fire Code, based on the International Fire Code, 2012 Edition, with errata, published by the International Code Council (ICC), with appendices and amendments thereto, including Chapter 1 and Appendices B, BB, C, CC, are hereby adopted by the City of Lake Forest for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire or explosion, save and except such portions as are hereinafter added, deleted, modified or amended. One copy of all the above is now on file in the office of the Clerk for public inspection and is adopted with the same force and effect as through set out herein in full.

Sec. 8.24.030. Chapter 1 amended – Administration is adopted in its entirety with the following amendments:

A. Section 109.4 Violation penalties is hereby revised 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.

B. Section 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.

C. 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 chief 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

- D. Section 202 General Definitions is hereby revised by adding "Approach-Departure Path," "Emergency Helicopter Landing Facility (EHLF)," "Flow-line," "Hazardous Fire Area," "Safety Area," and "Takeoff and Landing Area" and revising "High-Rise Building" as follows:

#### 202 General 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 75 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.

E. Section 304.1.2 Vegetation is hereby revised 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.

F. Section 305.6 Outdoor fires is hereby added as follows:

**305.6 Outdoor fires.** Outdoor fires shall be in accordance with Sections 305, 307, and 308 and with other applicable sections of this code.

**305.6.1 Where prohibited.** Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ, except by permit from the fire code official.

Exceptions: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.
2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.
3. Installations or uses approved by the fire code official.

**305.6.1.1 Fuel Modification Areas.** Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

**305.6.1.2 Supervision.** Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

**305.6.2 Hazardous conditions.** Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

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

G. Section 307 OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES is hereby amended as follows:

**SECTION 307 OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND OUTDOOR FIREPLACES**

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

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

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the Building Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At other R occupancies, the minimum distance shall be ten feet. Where a permanent Building Department approved hood and vent is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

307.6.2.1 Where prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and adopted Fire Hazard

Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

- H. Section 319 Development on or Near Land Containing or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors, is hereby added as follows:

319 Development On Or Near Land Containing Or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors. The fire code official may require the submittal for approval of geological studies, evaluations, reports, remedial recommendations and/or similar documentation from a state-licensed and department-approved individual or firm, on any parcel of land to be developed which has, or is adjacent to, or within 1,000 feet (304.8 m) of a parcel of land that has an active, inactive, or abandoned oil or gas well operation, petroleum or chemical refining facility, petroleum or chemical storage, or may contain or give off toxic, combustible or flammable liquids, gases or vapors.

- I. Section 320 Fuel Modification Requirements for New Construction is hereby added as follows:

320 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of OCFA Vegetation Management Guidelines currently in use at the time of plan submittal.

- J. Section 321 Clearance of brush or vegetation growth from roadways is hereby added as follows:

321 Clearance of brush or vegetation growth from roadways. The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic, to be cleared of flammable vegetation and other combustible growth. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

Exception: Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground covers, provided that they do not form a means of readily transmitting fire.

K. Section 322 Unusual Circumstances is hereby added as follows:

322 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that in any specific case that any of the following conditions exist:

1. Difficult terrain.
2. Danger of erosion.
3. Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.
4. Stands or groves of trees or heritage trees.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

L. Section 323 Use of Equipment is hereby added as follows:

323 Use of equipment. Except as otherwise provided in this section, no person shall use, operate, or cause to be operated in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 323.1 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exceptions:

1. Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.
2. Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in good mechanical condition

M. Section 323.1 Spark Arresters is hereby added as follows:

323.1 Spark arresters. Spark arresters shall comply with the following:

1. A spark arrester is a device constructed of nonflammable material specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch (0.58 mm) in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

N. Section 324 Restricted Entry is hereby added as follows:

324 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of hazardous fire areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the hazardous fire area is closed to entry, is prohibited.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands.
2. Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service.

O. Section 325 Trespassing on posted property is hereby added as follows:

325 Trespassing on posted property. When the fire code official determines that a specific area within a hazardous fire area presents an exceptional and continuing fire danger because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.

2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

- P. Section 326 Sky Lanterns or similar devices is 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.

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

401  
401.3.4  
401.9  
402  
403  
404.6 – 404.7.6  
407  
408.3.1 – 408.3.2  
408.12 – 408.12.3

- R. SECTION 503.2.1 Dimensions is revised 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.

- S. SECTION 503.2.1.1 Hazardous Fire Area is added as follows:

503.2.1.1 Hazardous Fire Areas. In Hazardous Fire Areas the minimum fire apparatus road width shall be 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

T. Section 505.1 Address Identification is revised 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.

U. Section 510.1 Emergency responder radio coverage is revised 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.
- V. Sections 510.2; 510.3; 510.4; 510.5; 510.6 are hereby deleted without replacement.

- W. 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.

- X. 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

- Y. Section 903.2 Where required is hereby revised as follows:

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

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, as defined in Section 202, exceeds 5,000 square feet (465 m<sup>2</sup>), 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 Section 903.2.8.

- Z. 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout buildings with a Group R fire area 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 any existing building when the floor area of the Alteration within any two year period exceeds 50% of area of the existing structure and the building area exceeds 5,500 ft<sup>2</sup>. When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the Alteration, with the approval of the fire code official, the required automatic sprinkler system may be omitted.

Exceptions to existing buildings requirement:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor, and not housing clients above the second floor.
2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 425.8.3.3 of the California Building Code.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and building or portions thereof housing such children are not more than two stories in height, and thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only,

none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

When not used in accordance with Sections 504.2 or 506.3 of the California Building Code, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

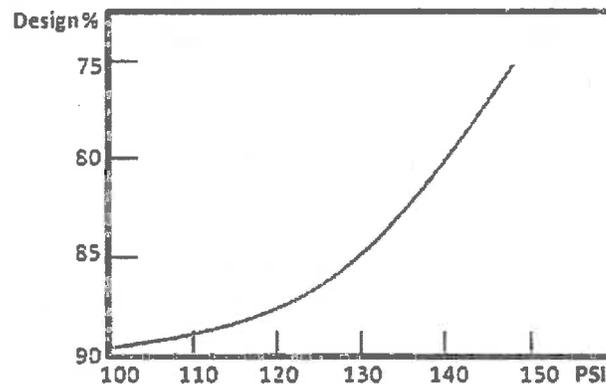
An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

AA. 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**



BB. Section 903.4 Sprinkler system supervision and alarms is hereby revised 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.

CC. 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.

DD. Section 907.2.13 High-rise buildings is hereby revised 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.

EE. 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.

FF. Section 907.5.2.2 Emergency voice/alarm communication systems is revised 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.

GG. Section 907.6.3.2 High-rise buildings is revised 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.

HH. Section 907.6.5 Monitoring is revised 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."

II. 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

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

#### SECTION 2008 Emergency Helicopter Landing Facility (EHLF)

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.

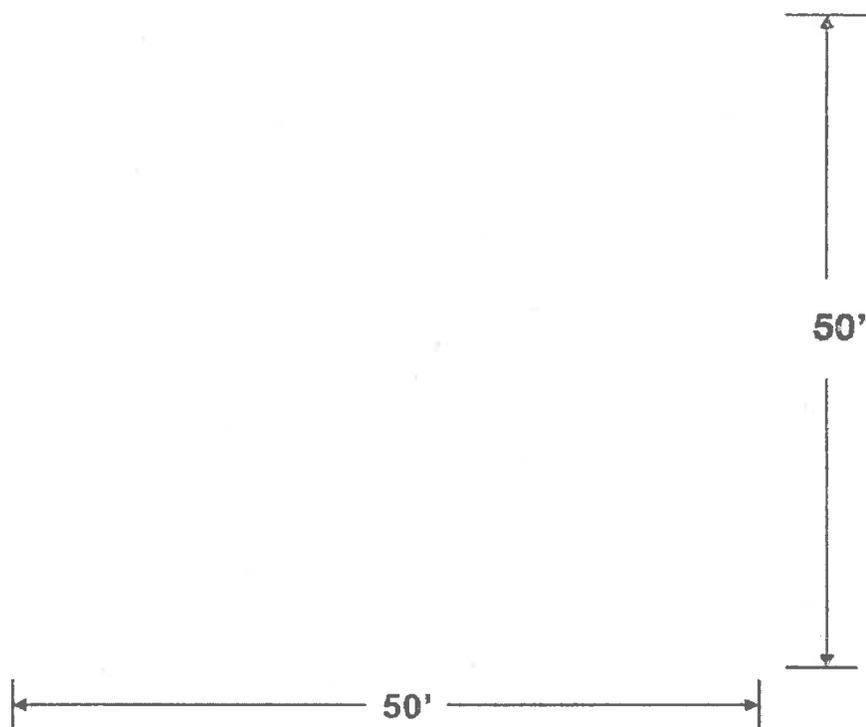
2008.1.8 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the 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 CFC, 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)

KK. Section 2801.2 Permit is hereby revised 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.

LL. Section 2808.2 Storage site is hereby revised 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.

MM. Section 2808.3 Size of piles is hereby revised 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.

NN. Section 2808.7 Pile fire protection is hereby revised 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.

OO. Section 2808.9 Material-handling equipment, is hereby revised 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.

PP. 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.

QQ. 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.

RR. 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.

SS. Section 4906.3 Vegetation is hereby revised by adding Section "(5)" as follows:

(5) OCFA Vegetation Management Guidelines.

TT. Section 4908 Fuel Modification Requirements for New Construction is hereby added as follows:

4908 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in hazardous fire areas shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
  - 2.1 The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Vegetation Management Guidelines.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval from the fire code official.
5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

UU. 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.

VV. 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.

WW. 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.

XX. 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.

YY. Section 5503.4.1 Identification signs is hereby revised 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.

ZZ. 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.

AAA. 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, 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.

BBB. 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.

CCC. Section 5608.1 General is hereby revised 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.

DDD. Section 5608.2 Firing is hereby added as follows:

5608.2 Firing. All fireworks displays shall be electrically fired.

EEE. 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.

FFF. 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.

GGG. 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 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. 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 revised 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 revised 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 revised 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 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 revised 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 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.

**SECTION 3.** The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

**SECTION 4.** If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance for any reason is held 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, subdivision, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

**SECTION 5.** Adoption includes the whole each Uniform Standards Code with accumulative supplements, and associated standards referenced therein, including such portions as may be added by the provisions of this chapter, and except such portions as may be deleted or modified by the provisions of this chapter. One copy of said code has been and is on file in the office of the Clerk of the Council of the City of Lake Forest.

**SECTION 6.** The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published at least five (5) days prior to the meeting at which the proposed Ordinance is to be adopted and shall post a certified copy of the proposed Ordinance in the Office of the City Clerk, and within fifteen (15) days of the adoption, shall post a certified copy of this Ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

**SECTION 7.** This ordinance shall be effective on January 1, 2014, which is to be no less than thirty days after its adoption.

PASSED, APPROVED, AND ADOPTED this 19th day of November, 2013.

COTT VO GTS  
MAYOR



ATTEST:

*Stephanie D. Smith*  
STEP ANIE D. SMITH, CMC  
CITY CLERK

APPROVED AS TO FORM:

SC \_\_\_\_\_  
CITY ATTORNEY

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) SS  
CITY OF LAKE FOREST )

I, Stephanie D. Smith, City Clerk of the City of Lake Forest, California do hereby certify that the foregoing Ordinance No. 259 was duly introduced and placed upon its first reading at a regular meeting of the City Council on the day of 15<sup>th</sup> of October, 2013, and thereafter, said Ordinance was duly adopted and passed at a regular meeting of the City Council on the 19<sup>th</sup> day of November, 2013, by the following vote, to wit:

AYES: COUNCIL MEMBERS: MCCULLLOUGH, NICK, ROBINSON,  
VOIGTS  
NOES: COUNCIL MEMBERS: NONE  
ABSENT: COUNCIL MEMBERS: NONE  
ABSTAIN: COUNCIL MEMBERS: NONE



STEPHANIE D. SMITH, CMC  
CITY CLERK

CERTIFICATION STATEMENT

I, Stephanie D. Smith, CMC, City Clerk of the City of Lake Forest, do hereby certify that the foregoing Ordinance is a true and correct copy of Ordinance No 259, passed by the people of the City of Lake Forest, as declared by the City Council on the day and year set forth above, and published pursuant to law.

  
\_\_\_\_\_  
STEPHANIE D. SMITH, CMC  
CITY CLERK