

**BUILDING STANDARDS COMMISSION**

2525 Natomas Park Drive, Suite 130  
Sacramento, California 95833-2936  
(916) 263-0916 FAX (916) 263-0959



January 24, 2014

Dennis McCreary, PE, CBO  
Deputy Building Official  
City of Tustin  
300 Centennial Way  
Tustin, CA 92780

RE: Ordinance #1435

Dear Mr. McCreary:

This letter is to advise you of our determination regarding the referenced ordinance with express findings received from your agency on December 19, 2013.

Our review finds the submittal to contain one ordinance 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 modification is accepted for filing and is 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,

A handwritten signature in blue ink that reads "Enrique M. Rodriguez".

Enrique M. Rodriguez  
Associate Construction Analyst

cc: Chron  
Local Filings

Community Development Department



2013 DEC 19 12:04  
COMMUNITY DEVELOPMENT DEPARTMENT

December 10, 2013

California Building Standards Commission  
Dave Walls  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833-2936

**SUBJECT: City of Tustin, Building Standards Code Adoption Resolution and Ordinance**

Mr. Dave Walls:

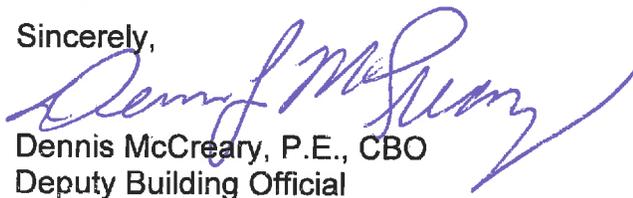
The City of Tustin has adopted the 2013 edition of the Building, Residential, Energy, Green Building Standards, Plumbing, Mechanical, Electrical, Historical Building, Fire Codes of the State of California and in addition the 2012 International Property Maintenance Code, 1997 Uniform Housing Code and Uniform Code for the Abatement of Dangerous Buildings Codes.

The City of Tustin has recommended changes and modifications to the Codes and have advised that certain said changes and modifications are reasonably necessary due to local conditions in the City of Tustin and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the codes or are reasonably necessary to safeguard life and property within the City of Tustin.

The enclosed City Ordinance 1435 and Resolution 13-79 are for your files. Please see the Resolution for the amendments' justifications.

If additional information is desired please telephone this office at (714) 573-3367.

Sincerely,

  
Dennis McCreary, P.E., CBO  
Deputy Building Official

Attachment: Resolution 13-79  
Ordinance 1435

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RESOLUTION NO. 13-79

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TUSTIN, CALIFORNIA, SETTING FORTH FINDINGS WITH RESPECT TO LOCAL CONDITIONS WITHIN THE CITY OF TUSTIN WHICH MAKE NECESSARY CERTAIN MODIFICATIONS AND CHANGES TO THE 2013 CALIFORNIA BUILDING STANDARDS CODE

The City Council of the City of Tustin finds and resolves as follows:

WHEREAS, Health and Safety Code Section 17958 provides that the City of Tustin shall adopt ordinances and regulations imposing the same or modified or changed requirements as are contained in the 2013 California Building Standards Code adopted by the State pursuant to Health and Safety Code Section 17922; and

WHEREAS, Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the 2013 California Building Standards Code, which are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the 2013 California Building Standards Code, shall make express findings that such changes or modifications are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, the Community Development Department and the Orange County Fire Authority (OCFA) have prepared Ordinance No. 1435 recommending that certain changes and modifications be made to the 2013 California Building Standards Code that are reasonably necessary as administrative or procedural in nature, or to ensure consistency with previously adopted ordinances, or are intended to enhance life and fire safety due to the following local conditions:

I. Climatic Conditions

- A. Orange County and the City of Tustin are located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. Tustin's local climatic conditions may cause extreme drying of vegetation and common building materials, and predispose all fuels, including wood shingles, to rapid ignition and spread of fire. Untreated wood roofs pose a serious fire hazard and aid 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.

- B. 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, 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 could 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. Placement of multiple occupancy buildings, location of arterial roads, and OCFA staffing constraints due to recent revenue-limiting state legislation have made it difficult for the OCFA to establish additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires that may occur within high density apartment or condominium buildings. 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 American Society of Civil Engineers Minimum Design Loads for Buildings and other Structures (ASCE-7), Section 6, Figure 6-2 Height Adjustment Table identifies a significant increase in the amount of wind force at 60 feet above the ground. In addition, OCFA equipment does not allow easy access to areas of buildings greater than 55 feet above the level of OCFA vehicle access. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury. Therefore, the proposed amendments would require additional built-in on-site fire protection systems that are needed to protect occupants and property until fire fighting apparatus and personnel arrive on the scene. The added protection of fire sprinkler systems and other fire protection features would supplement normal OCFA 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.
- C. 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.
- D. 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 limited rainfall in the area, storage capacity limitations and rising

consumption needs, future water allocation is not fully dependable. 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. This necessitates the need for additional on-site fire protection features.

## II. Topographical conditions

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

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

## III Geographic Conditions

- A. The City of Tustin is located in Seismic Design Category D or higher. There are earthquake faults that run along both the northeastern and southwestern boundaries of Orange County. The Newport-Inglewood Fault Zone (NIFZ) which runs through Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude, hypocenter

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

- B. In the event of local emergency conditions within the City of Tustin, traffic and circulation congestion often places OCFA response time to fire occurrences at risk. This condition will be exacerbated by any major regional disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.
- C. The City of Tustin is located in the middle of the seismically active area identified as Seismic Design Category D or higher. The viability of the public water system would be questionable after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.
- D. Building Code Section 3402 and 3405 – Are intended to provide the tools necessary to comply with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, ("Stafford Act"). The Stafford Act

authorizes the Federal Emergency Management Agency (FEMA) to fund the repair and restoration of eligible government and non-profit facilities damaged in a Presidential declared disaster. Section 406(e) of the Stafford Act requires that the repair and restoration be "on the basis of the design of such facility as it existed immediately prior to the major disaster and in conformity with current applicable codes, specifications and standards." Provisions are the recommendation of the California Building Official (CALBO) Emergency Preparedness Committee.

- E. Soils throughout Orange County possess corrosive properties that reduce the expected usable life of metallic electrical conduits and water services when metallic pipes come in contact with these soils necessitating amendments to the code to protect public health and safety.

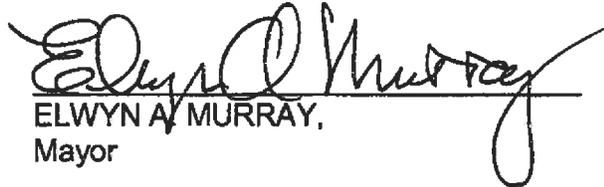
NOW THEREFORE BE IT RESOLVED, the City Council of the City of Tustin resolves as follows:

Section 1: That certain changes and modifications to the 2013 California Building Standards Code identified in proposed Ordinance No. 1435 are reasonably necessary as administrative or procedural in nature, or to ensure consistency with previously adopted ordinances, or are intended to enhance life and fire safety due to the climatic, topographical, and/or geologic conditions cited below:

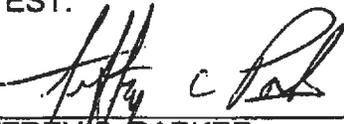
<u>Amendments Proposed in Ordinance No. 1435</u>	<u>Findings as identified in Sections I, II, or III, above)</u>
305.5, 323, 323.1, 324, 5003.1.1(1), 503.1.1.1, 5601.2, 5601.3, 5602, 5608.2	I
202, 403.1, 503.2.1, 503.2.1.1, 907.6.3.2, 2008, 2808.3, 2808.7	II
10.1.6.3, 10.3.6.2, 10.3.6.3, 10.6.3.1, 10.6.4, 3405, Plumbing Code 604 and 1280.5, Electrical Code 300.5, R403.1.3, R405.1	III
319, 320, 321, 322, 325, 907.6.5, 2808.9, 2808.11, 2808.11.1, 2808.11.2, 4906.3, 4908, 11.2.3.1.1.1, 23.2.1.1, 6.16.1, 4.1.3, 4.1.3.1, 4.1.3.3, 4.1.3.3, 4.1.3.4, 7.1.2, 7.6, 7.3.1.1, 412.7.6 – 412.7.6.13, 903.4, 903.3.5.3, 905.4,	I, II
608.1, 608.10	II, III
505.1, 903.2, 903.3.5.3, 903.4, 907.2.13, 907.3.1, 907.5.2.2, 6004.2.2.7, 6.83, 8.3.3.1, 8.17.1.1.1, 11.1.1.2	I, II, III

Section 2: The Community Development Department shall file copies of Resolution No. 13-79 and Ordinance No. 1435 with the California Building Standards Commission as required by Health and Safety Code Section 17958.7.

PASSED and ADOPTED at a regular meeting of the City Council of the City of Tustin, held on the 5<sup>th</sup> day of November, 2013.

  
ELWYN A. MURRAY,  
Mayor

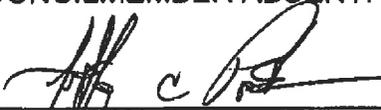
ATTEST:

  
JEFFREY C. PARKER,  
City Clerk

STATE OF CALIFORNIA }  
COUNTY OF ORANGE } SS  
CITY OF TUSTIN }

I, Jeffrey C. Parker, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, do hereby certify that the whole number of the members of the City Council of the City of Tustin is five; that the above and foregoing Resolution No. 13-79 was passed and adopted at a regular meeting of the City Council held on the 5<sup>th</sup> day of November, 2013 by the following vote:

COUNCILMEMBER AYES: Murray, Puckett, Nielsen, Gomez, Bernstein (5)  
COUNCILMEMBER NOES: None (0)  
COUNCILMEMBER ABSTAINED: None (0)  
COUNCILMEMBER ABSENT: None (0)

  
JEFFREY C. PARKER,  
City Clerk

**ORDINANCE NO. 1435**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TUSTIN, CALIFORNIA AMENDING CERTAIN CHAPTERS OF ARTICLES 5 AND 8 OF THE TUSTIN CITY CODE AND ADOPTING THE 2013 EDITIONS OF THE CALIFORNIA BUILDING STANDARDS CODE, RELATED MODEL CODES WITH APPENDICES, AND CERTAIN SUPPLEMENTAL REGULATIONS, INCLUDING: THE CALIFORNIA BUILDING CODE, 2013 EDITION, BASED ON THE 2012 INTERNATIONAL BUILDING CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, INCLUDING THE ADMINISTRATION PROVISIONS INCLUDED IN DIVISION II OF CHAPTER 1 (TITLE 24, PART 1, VOLUMES I AND II); THE CALIFORNIA RESIDENTIAL CODE, 2013 EDITION, BASED ON THE 2012 INTERNATIONAL RESIDENTIAL CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL (TITLE 24, PART 2.5); THE CALIFORNIA FIRE CODE, 2013 EDITION, BASED ON THE 2012 INTERNATIONAL FIRE CODE, INCLUDING APPENDICES A THROUGH CC, BASED ON THE 2012 INTERNATIONAL FIRE CODE (TITLE 24 PART 9); THE CALIFORNIA GREEN BUILDING STANDARDS CODE, 2013 EDITION (TITLE 24, PART 11); THE CALIFORNIA PLUMBING CODE, 2013 EDITION, BASED ON THE 2012 UNIFORM PLUMBING CODE AS PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (TITLE 24, PART 5); THE CALIFORNIA MECHANICAL CODE, 2013 EDITION, BASED ON THE 2012 UNIFORM MECHANICAL CODE AS PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (TITLE 24, PART 4); THE CALIFORNIA ELECTRICAL CODE, 2013 EDITION, BASED ON THE 2011 NATIONAL ELECTRICAL CODE AS PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (TITLE 24, PART 3); THE CALIFORNIA HISTORICAL BUILDING CODE, 2013 EDITION, BASED ON THE 2012 INTERNATIONAL BUILDING CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL (TITLE 24, PART 8); THE CALIFORNIA EXISTING BUILDING CODE 2013 EDITION, BASED ON THE 2012 INTERNATIONAL EXISTING BUILDING CODE AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL (TITLE 24, PART 10); THE UNIFORM HOUSING CODE, 1997 EDITION, AS PUBLISHED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS; THE UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS, 1997 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; AND THE INTERNATIONAL PROPERTY MAINTENANCE CODE, 2012 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL; AND ADOPTING AMENDMENTS THERETO.**

The City Council of the City of Tustin does ordain as follows:

**SECTION 1. Chapter 1 of Article 5 "Fire Protection" of the Tustin City Code is repealed and deleted in its entirety.**

**SECTION 2. Chapters 1, 1A and 1B, and Chapters 6, 7, 8, and 9A of Article 8 "Building Regulations" of the Tustin City Code are deleted in its entirety and replaced as follows:**

**CHAPTER 1 - BUILDING CODES AND CONSTRUCTION REGULATIONS**

**8100 Building and Construction Codes Adopted by Reference.**

For the purpose of prescribing regulations for the safe erection, construction, enlargement, alteration, repair, improvement, removal, conversion, demolition, occupancy, equipment use, height, and area of buildings and structures within the City of Tustin, the following building and construction codes, including certain supplemental regulations, and subject to the local amendments set forth in this chapter, are adopted by reference as the City of Tustin Building Codes and Construction Regulations:

The California Building Code, 2013 Edition, based on the 2012 International Building Code as published by the International Code Council, including the administration provisions included in Division II of Chapter 1 (Title 24, Part 1, Volumes I and II);

The California Residential Code, 2013 Edition, based on the 2012 International Residential Code as published by the International Code Council (Title 24, Part 2.5);

The California Fire Code, 2013 Edition, based on the 2012 International Fire Code, including Appendices A through CC, based on the 2012 International Fire Code (Title 24 Part 9);

The California Green Building Standards Code, 2013 Edition (Title 24, Part 11);

The California Plumbing Code, 2013 Edition, based on the 2012 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials (Title 24, Part 5);

The California Mechanical Code, 2013 Edition, based on the 2012 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials (Title 24, Part 4);

The California Electrical Code, 2013 Edition, based on the 2011 National Electrical Code as published by the National Fire Protection Association (Title 24, Part 3);

**The California Historical Building Code, 2013 Edition, based on the 2012 International Building Code as published by the International Code Council (Title 24, Part 8);**

**The California Existing Building Code 2013 Edition, based on the 2012 International Existing Building Code as published by the International Code Council (Title 24, Part 10);**

**The Uniform Housing Code, 1997 Edition, as published by the International Conference of Building Officials;**

**The Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, as published by the International Code Council; and**

**The International Property Maintenance Code, 2012 Edition, as published by the International Code Council.**

Pursuant to State law, the City of Tustin has made certain amendments to the California Code of Regulations Title 24 California Building Standards Codes which are necessary to address local climatic, geological, or topographical conditions in the City of Tustin, as identified in City Council Resolution No. 13-79. Except as amended herein, where the California Code of Regulations Title 24 Building Standards Codes differ from any sections of the City's Building and Construction Regulations, the State regulations shall prevail.

Notwithstanding the provisions of the above-referenced codes, all fees for services provided pursuant to the City of Tustin Fire Code shall not take effect until a resolution for such fees is adopted by the Orange County Fire Authority Board of Directors.

One (1) copy of all the above-referenced codes and standards is on file in the office of the Building Official pursuant to Health and Safety Code Section 18942 (d) (1) and are made available for public inspection at City Hall within the Community Development Department, Building Division, during regular business hours.

#### **8101 AMENDMENT OF THE ADMINISTRATIVE PROVISIONS OF CHAPTER 1, DIVISION II OF THE 2013 CALIFORNIA BUILDING CODE**

**Chapter 1, Division II of the 2013 California Building Code is amended as follows:**

- (a) Section 101.2 "Scope" of the 2013 California Building Code is amended to add a new second and third paragraph to read:**

**The provisions of these codes shall apply to and affect all of the properties within the City of Tustin, except work located primarily in a public way; public utility towers and poles; mechanical equipment not specifically regulated in these codes; hydraulic flood control structures; and facilities**

for the production, generation, storage or transmission of water or electrical energy by a local agency. If any conflict between this chapter and any other provisions of the Tustin City Code exists, this chapter shall govern.

All references to the term [Uniform Building Code] in the Tustin City Code and Ordinances shall mean the latest edition of the [California Building Standards Code.]

- (b) Section 103.1 "Intent" of the 2013 California Building Code is amended by adding the following to the end of the section to read:

Where referred to by this code, "building official" and "code official" shall mean the Building Official of the City of Tustin, and "Department of Building and Safety" or "department" shall mean the Building Division of the Community Development Department of the City of Tustin. Any and all classification, title changes, organizational changes are made with respect to approvals thereto by the City Council.

- (c) Section 104.6 "Right of entry" of the 2013 California Building Code is amended by adding a second paragraph to read:

When the Building Official shall have first obtained a proper inspection warrant or other remedy provided by law to secure entry, no owner or occupant or any other persons having charge, care or control of any building or premises shall fail or neglect, after proper request is made as herein provided, to promptly permit entry therein by the Building Official for the purpose of inspection and examination pursuant to this Code.

- (d) Section 105.1 "Required" of the 2013 California Building Code is amended by adding Sections 105.1.3, 105.1.3.1, 105.1.4, and 105.1.5 to read:

**105.1.3 Grading Permits.** The Building Official may issue permits for grading and for construction, demolition, addition, alteration, and installation of improvements. Improvements subject to permit requirements include but are not limited to: streets, parking lots, curb and gutter, driveways, sidewalks, disabled access ramps and signage, street and parking lot striping and signage, street and parking lot lighting, storm drains, junction structures, catch basins, sewer mains and laterals, water mains and services, landscaping irrigation, and miscellaneous on-site improvements. In addition, all improvements shall comply with the Grading Ordinance and the Water Quality Ordinance of the Tustin City Code.

**105.1.3.1 Drainage across property lines.** Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage

facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices.

**105.1.4 Relocation of Buildings.** No building or structure shall be moved or relocated unless and until the necessary permits to relocate the building or structure have been issued by the Building Official. The Building Official shall determine the applicable year and Codes that apply.

**105.1.5 Demolition of Building or Structure, including In-ground swimming pool.** No building or structure, including in-ground swimming pool, shall be demolished unless and until the necessary permits to demolish the building or structure have been issued by the Building Official.

Prior to issuing any permits, the Building Official will ensure life and property is reasonably protected. A refundable cash deposit or surety bond shall be collected, to reimburse the expenses to the City should the Building Official be required to demolish the building or structure or any portion remaining thereof, and dispose of the debris in a public dump and/or to repair or clean public property damaged or not cleaned by the permittee or to mitigate water quality impacts per Tustin City Code.

The cash deposit or surety bond shall be Five Thousand Dollars (\$5,000.00) plus Two Dollars (\$2.00) per square foot for each square foot over one thousand (1,000) square feet.

The Building Official shall, in issuing any demolition permit, impose therein such terms and conditions, including a cash bond deposit or surety bond, as may be necessary to ensure compliance with the requirements of all federal, State laws and City ordinances. The terms and conditions upon which each permit is granted shall be specified in writing in the permit, or appended in writing thereto.

**Default in Performance.**

a. If the Building Official finds that a default has occurred in the performance of any term or condition of the demolition permit, or the owner and/or permittee has soiled or damaged public property, written notice thereof shall be given to the owner and/or permittee.

b. Such notice shall specify the work to be done, the estimated cost thereof, and the period of time deemed by the Building Official to be reasonably necessary for the completion of such work.

c. After receipt of such notice, the owner and/or permittee thereof specified shall cause the required work to be performed. Should the owner

and/or permittee refuse or fail therein, the Building Official shall proceed to cause the building to be demolished, but no liability shall be incurred therein, other than for City expenses deducted from the cash deposit.

d. Upon completion of the demolition work, the cash deposit shall be refunded or surety bond shall be released, less that portion required to reimburse the City for demolition, repairs, or clean-up expenses due to the default of the permittee.

(e) Section 105.2 "Work Exempt from Permit" of the 2013 California Building Code is amended to read as follows:

1. Section 105.2, "Building" Item 1 is amended to read:

1. One-story detached accessory structures used as tool and storage sheds, patio and pool supply sheds, free standing vehicle covers, BBQ or stand-alone fireplaces not exceeding 6 feet above grade, playhouses and similar uses, provided the floor area does not exceed 120 square feet (1.1m<sup>2</sup>) with no air conditioning, no electrical, and no plumbing fixtures, and conforming with the Zoning Code. A correctly dimensioned site plan depicting the property lines, location, elevation, colors and finishing surface shall be submitted to the City Planning Division for review and approval. Electrical, plumbing, mechanical, and grading permits where applicable are not exempt. A no-inspection building permit shall be issued upon approval and permit issuance fee only shall apply.

2. Section 105.2, "Building" Item 2 is amended to read:

2.F Fences, block walls, wood, steel, or iron fences 3 feet and over in height but less than 6 feet above finished grade supported either by natural grade, or by retaining walls 2 feet and under in height above finished grade for Group R-3 occupancies and those structures covered by the California Residential Code. A correctly dimensioned site plan depicting the property lines, location, elevation, color and finishing surface shall be submitted to the City Planning Division for review and approval. A no-inspection building permit will be issued upon approval and permit issuance fee only shall apply. Permit shall not be required if the aforementioned fence is less than 3 feet in height.

3. Section 105.2, "Plumbing" Item 2 is amended to read:

3. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, or the removal and reinstallation or replacement

of water closets, sinks, garbage disposals or dishwashers, provided such work does not involve or require the replacement or rearrangement of valves, pipes or fixtures and is in conformance with this code and applicable state laws.

- (f) Section 105.3.2 "Time limitation of application" of the 2013 California Building Code is amended to read as follows:

**105.3.2 Time limitation of application.** Applications for a permit for any proposed work for which no permit is issued shall be deemed to have expired 360 days after the date of filing unless otherwise limited by the Code. The Building Official is authorized to grant one extension of time for action by the applicant for a period not exceeding 180 days. The extension shall be requested in writing and justifiable cause demonstrated. Plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. When required by State law or City ordinance, permit applications shall be amended to comply with pertinent State laws and City ordinances adopted subsequent to the date of application.

Time limitation for permit application and subsequent extension as the result of code enforcement cases shall be thirty (30) days from the date the notice of violation is issued or otherwise determined by the Building Official. Building Official may not grant any extension.

- (g) Section 105.5 "Expiration" of the 2013 California Building Code is amended to add a sentence at the end of the paragraph and add a second paragraph to read:

Permits shall not be extended more than twice.

Time limitation for permit as the result of code enforcement cases shall be thirty (30) days or otherwise determined by the Building Official. Building Official may not grant any extension.

- (h) The 2013 California Building Code is amended by adding Sections 105.8, 105.9, 105.10, 105.11, 105.12 and 105.13 to read:

**105.8 Residential remodeling.** The following regulations and definitions shall apply to all remodeling construction on dwellings and properties:

1. **Completion of construction.** All building permits for Group R-3 occupancies and those structures covered by the California Residential Code, remodeling shall expire in accordance with the provisions of the building code if work is not commenced within one hundred eighty (180) days from the date of such permit, or if the work authorized by permit is

suspended or abandoned, for one hundred eighty (180) days at any time after the work is commenced. Notwithstanding the above, and subject to the provisions for extensions provided in subsection 2 below, all residential remodeling shall be completed by the owner, owner's agent, or the permittee, and approved by the City within the following timeframe:

- a. Room additions (exterior of buildings and property area) 18 months
- b. Pools/spas 12 months
- c. Patio covers 6 months
- d. Water heaters, water softeners 6 months
- e. Fireplaces 6 months
- f. Skylights 6 months
- g. All other remodeling or building air conditioners 6 months

2. **Maintenance of property during remodeling.** During remodeling, all property shall be maintained in a reasonable clean and well-kept manner in accordance with the Tustin City Code.

3. **Definitions.**

a. **Remodeling.** Residential remodeling construction is defined as construction of work which constitutes construction, enlargement, alteration, erection, repair, demolition or improvement, of an existing residential structure or other improvement located on residential property.

b. **Reasonable progress.** Reasonable progress shall mean a demonstration that all means reasonably available to the permittee to complete the work within the prescribed time have been exhausted.

**105.9 Change of contractor or of ownership.** A permit issued hereunder shall expire upon a change of ownership or a change of contractor for the building, structure or grading for which said permit was issued if the work thereon has not been completed, and a new permit shall be required for the completion of the work. If no changes have been made to the plans or specifications last submitted to the Building Official, a permit issuance fee as set forth in the City's fee resolution shall be charged to the permit applicant. If changes to the plans or specifications have been made, the Building Official shall determine appropriate permit and plan check fees in accordance with the City's fee resolution.

**105.10 Subcontractors.** At the time of permit issuance, the applicant

shall complete a form provided by the Building Division, which lists all subcontractors, and shows verification of workers' compensation insurance, State contractor license and license category, City business license and Federal tax identification number. No person shall contract or sub-contract construction work without a valid contractor's license pursuant to applicable provisions of the California Business and Professions Code.

In the event that the applicant cannot provide a complete list of valid subcontractors at the time of permit issuance, the applicant shall provide said list to the City - within a reasonable period of time after permit issuance. Failure to provide timely valid and current sub-contractor listings shall result in the permit applicant paying a penalty for default to the City in an amount equal to the original permit fee for each sub-contractor violation in order to defray City costs of enforcement of this section. Failure to remit penalty payment shall constitute a violation of this code, punishable as a misdemeanor under the City Code.

**105.11 Clean-Up Deposit.** The Building Official shall, prior to issuing a permit for a swimming pool or spa, require clean-up deposit as follows:

1. Prior to issuance of a building permit for a swimming pool or spa, the applicant shall provide an agreement and cash deposit for the purpose of insuring that: a) sand, cement, dirt and any other debris is removed from streets, gutters, curbs, parkways, sidewalks and other public property; b) public property is left in a clean and undamaged condition; and, c) adequate barricades have been installed and maintained. Said deposit shall be determined by the Building Official for the construction of a swimming pool, spa or other construction related thereto requiring the use of heavy equipment.

2. Said agreement and deposit may be reduced to not less than one thousand dollars (\$1,000.00) for the issuance of a spa, jacuzzi, and other small pool permit not intended for swimming when the scope of the project will have a minimal impact on public improvements; by reason of not requiring the use of heavy construction equipment over curbs, sidewalks or public streets.

3. Said deposit shall terminate and be returnable to the applicant at the time of completion and provided that debris and other materials have been properly removed, and the public property has been left clean and undamaged.

All damage to public curbs, gutters, sidewalks, driveway and light standards during the construction of a pool, shall be repaired prior to preplaster

inspection. A written signed release from the Public Works Department shall be filed with the Building Official to ensure damages have been repaired.

4. If the public property has not been left in a clean and undamaged condition and/or adequate barricades required by the Public Works Department have not been installed and maintained, the City shall cause the necessary work to be done and shall deduct the cost thereof from the deposit.

**105.12 Public Encroachment.** Construction materials, debris, trash containers (dumpsters), and other non-vehicle materials shall not be deposited on public property without the written approval of the City Engineer and only under such conditions as he/she may impose. Any barricading required by the City Engineer shall be provided by the contractor.

- (h) Section 109.2 of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**109.2 Schedule of plan check and permit fees.** On buildings, structures, electrical, gas, mechanical, plumbing systems and grading, or alterations thereof that require a permit, a fee for each plan check and permit shall be paid as required, in accordance with the schedule as established by a the City Council resolution in effect at the time of plan check application and issuance of the permit.

**109.2.1 Plan check fees.** When construction documents are required, they should be submitted for plan check to the Building Official. A plan check fee shall be paid at the time of submitting the documents for plan check. The plan check fees specified in this section are separate fees from the permit fees specified in Section 109.2 and are in addition to the permit fees.

When submittal documents are incomplete or changed or amended so as to require additional plan review, or when the project is phased as defined in Section 107.3.3, or when the project involves deferred submittal items as defined in Section 107.3.4.1, additional plan check fees shall be charged as set forth in the fee schedule established by the City Council resolution in effect at the time of the additional or defined plan check submittal.

**109.2.2 Engineering or inspection investigation fees.** Whenever work for which a permit is required by this Code has been commenced without first obtaining a permit, the Building Official may require an investigation by City staff be made before a permit may be issued for such work.

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued for City's cost of investigation by City staff. The payment of such investigation fee shall not exempt an applicant from compliance with all other provisions of the Tustin City Code nor from the penalty prescribed by law.

A real estate investigation fee may also be charged for any investigation of a building, structure, or property, when approved by the Building Official and requested by an owner or authorized agent of such owner. Such fee shall be equal to or less than the cost of providing the inspection and/or investigation.

- (i) Section 109.3 of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**109.3 Building permit valuations.** The determination of value or valuation under any of the provisions of these Codes shall be made as set forth in the fee schedule established by City Council resolution in effect at the time of plan check submittal. The value to be used in computing the building permit and building plan check fees shall be the total value of all construction work, including materials and labor, for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and other permanent equipment, and grading as determined by the Building Official based on the current edition of the Marshall Valuation Service published by Marshall & Swift/Boeckh, LLC., RS Means Cost Data published by Reed Construction Data, or other nationally or regionally recognized standards.

- (j) Section 109.6 of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**109.6 Refunds.** The Building Official may authorize refunding of a fee paid hereunder which was erroneously paid or collected.

The Building Official may authorize refunding 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 check fee paid when an application for a permit for which a plan check fee has been paid is withdrawn or canceled before any examination time has been expended.

The Building Official shall not authorize the refunding of any fee paid except upon written application filed by the permittee not later than 360 days after the date of fee payment or as otherwise required by law.

- (k) Section 110.3 "Required inspections" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**110.3 Required inspections.** The Building Official, upon notification, shall make the inspections set forth in this Section. Structural tests, special inspections and structural observation shall also comply with the provisions of Chapter 17 of the California Building Code.

**110.3.1 Grading, excavation and filling inspection.** Inspection shall be conducted during earthwork, excavations, grading and filling operations in accordance with Section 1705.6, Chapter 18, and the Tustin City Code.

**110.3.2 Footing and foundation inspection.** Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with American Society for Testing and Materials (ASTM) C 94, the concrete need not be on the job.

**110.3.3 Concrete slab and under-floor inspection.** Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories, and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

**110.3.4 Lowest floor elevation.** In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the Building Official.

**110.3.5 Frame inspection.** Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place, and pipes, chimneys and vents to be concealed are complete, and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

**110.3.6 Lath and gypsum board inspection.** Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, are in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

**110.3.7 Fire-resistant penetrations.** Protection of joints and

penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

**110.3.8 Energy efficiency inspections.** Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation *R*- and *U*- values, fenestration *U*-value (Heat-Loss Value), duct system *R*-value (Resistance-Value), and Heating, Ventilation and Air Conditioning (HVAC) and water-heating equipment efficiency.

**110.3.9 Other inspections.** In addition to the inspections specified above, the Building Official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this Code and other laws that are enforced by the department of building safety.

**110.3.10 Special inspections and special inspectors.** For special inspections, see Section 1704. Special inspection shall be performed by individuals with demonstrated qualifications approved by the Building Official and listed by the City of Tustin.

**110.3.11 Final inspections.** The final inspection shall be made after all work required by the building permit is completed.

- (I) Section 113.1 "General" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**113.1 General.** The Building Board of Appeals for the City of Tustin shall consist of five members, comprised of members of the Planning Commission. Said members shall hold their respective membership on said Building Board of Appeals by reason of, and concurrently with their terms of service as Planning Commissioners and shall cease to be such members upon their ceasing to be such Commissioners. The Building Official shall be the Secretary of the Board.

The Building Board of Appeals ("Board") may appoint one or more Hearing Examiners or Hearing Officers ("Hearing Officer" or "Hearing Officers") or designate one or more of its members to serve as hearing officer(s) to conduct the hearing. The Hearing Officer hearing the case shall exercise all powers relating to the conduct of a hearing until it is submitted to the Board for decision.

Whenever used in this Code or by any other code referenced by this Code, the terms Hearing Officer and Hearing Examiner shall have the same meaning and may be used interchangeably.

Whenever the Board elects to appoint a Hearing Officer, said Hearing Officer shall be selected pursuant to, and shall be subject to, the Hearing Officer Guidelines established by TCC section 1167.

The Building Board of Appeals may adopt reasonable rules and regulations for conducting its investigations and shall render its decisions and findings on contested matters in writing to the Building Official, with a duplicate copy thereof to any appellant or contestant affected by any such decision or findings, and may recommend to the City Council such new legislation, if any, as is consistent therewith.

All Building Board of Appeals decisions and findings shall be transmitted in writing to the appellant. The Building Official shall maintain a full set of records for each case. The order of the Building Board of Appeals shall be immediately final.

**113.1.1 Application.** Applicants for a hearing before the Building Board of Appeals shall pay a fee in the amount set by City Council resolution prior to administrative processing for any proceedings. The applicant shall complete the established City application form for an appeals hearing along with submittal of required fees.

Applicants for a Building Board of Appeals hearing shall be notified at least one (1) week prior to any hearing or proceedings concerning their case. The applicant shall be given the opportunity to present his/her case at any proceedings involving their applications.

- (m) Section 114.1 "Unlawful acts" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**114.1 Unlawful acts.** It shall be unlawful for any person, firm or corporation to grade, erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this Code, or cause same to be done, in conflict with or in violation of any of the provisions of the Tustin City Code.

- (n) Section 114.4 "Violation penalties" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**114.4 Violation penalties.** No person, firm, or corporation shall violate any provision, or fail to comply with any of the provisions of this Code, or of any Code adopted herein by reference. Any person violating any of the provisions or failing to comply with any of the mandatory requirements of this Code, or any Code adopted by reference herein, unless otherwise specified in this Code, shall be guilty of an infraction or misdemeanor as set forth in

the Penalty Provisions of the Tustin City Code.

Each such person, firm, or corporation violating any provision or failing to comply with any of the requirements shall be guilty of a separate offense, and each day during any portion of which any violation of any provision of this Code, or any Code adopted by reference herein, is committed, continued or permitted by such person, shall constitute a separate offense, and shall be punishable accordingly. Provided further that each such person violating a provision which limits the time an act may be permitted or continued, each such period or portion thereof of which any violation of such provision is committed, continued or permitted by such person, shall constitute a separate offense, and shall be punishable accordingly.

In addition to the penalties hereinabove provided, any condition caused or permitted to exist in violation of any of the provisions of this Code, or of any Code adopted by reference herein, may be deemed a public nuisance and may be summarily abated as such by the City, and each day such condition continues shall be regarded as a new and separate nuisance and offense.

- (o) Section 116.1 "Conditions" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

**116.1 Conditions.** All sites, buildings, structures or existing equipment which are determined by the Building Official to be unsafe, unsanitary or deficient, as this division or in any other effective ordinance, including but not limited to the International Property Maintenance Code, the Uniform Housing Code, and the Uniform Code for the Abatement of Dangerous Buildings as adopted by the City of Tustin constitute an unsafe condition. All such unsafe conditions, sites, buildings, structures, or equipment are hereby declared to be public nuisances and may be abated by repair, rehabilitation, improvement, removal, demolition, in whole or part, in accordance with the procedures specified in the Tustin City Code or by any other legal means.

## 8102 AMENDMENT OF THE 2013 CALIFORNIA BUILDING CODE

The 2013 California Building Code is hereby amended as follows:

- (a) Section 202 "Definitions" of the 2013 California Building Code is amended by adding the following definitions:

**Approach-departure path.** The flight path of the helicopter as it approaches or departs from the landing pad.

**Emergency Helicopter Landing Facility (EHLF).** A landing area on the

roof of a 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.

**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.

- (b) Section 202 "Definitions" of the 2013 California Building Code is amended to revise the definition of "high-rise structure" as follows:

**High-rise structure.** Every building of any type of construction or occupancy having floor 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.

- (c) The first paragraph of Section 403.1 "Applicability" of the 2013 California Building Code is amended to read 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.

- (d) Section 412.7.6 "Emergency Helicopter Landing Facility" is added to the 2013 California Building Code to read as follows:

**412.7.6 Emergency Helicopter Landing Facility.** Emergency Helicopter Landing Facility (EHLF) shall be constructed in accordance with Sections 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 feet above the lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for use by fire, police, and emergency medical helicopters only.

**412.7.6.2 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.

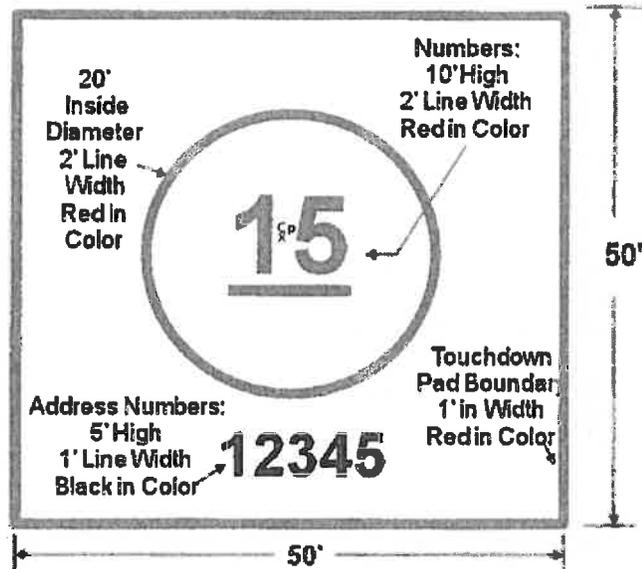
**412.7.6.5 Safety net.** If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing 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 412.7.5.8, as follows:

**Figure 412.7.5.8**



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 oriented towards the preferred flight (typically facing the prevailing wind).

**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 to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 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 the CFC, Section 906.

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

- (e) Section 903.2 "Where required" of the 2013 California Building Code is amended to read as follows:

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

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202, regardless of fire areas or allowable area.
2. **Existing buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and one of the following conditions exists:
  - a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202; or
  - b. When an addition exceeds 2,000 square feet (186 m<sup>2</sup>) and the resulting building area exceeds 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202.

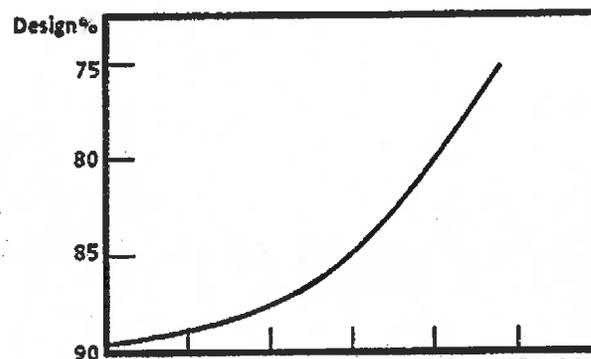
Exception: Group R-3 occupancies shall comply with Section 903.2.8.

- (f) Section 903.3.5.3 "Hydraulically calculated systems" is added to the 2013 California Building Code to read 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**



(g) Section 903.4 "Sprinkler System Supervision and Alarms" of the 2013 California Building Code is revised by modifying Exception 1, deleting Exceptions 3 and 5, and renumbering the remaining Exceptions to read 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.

(h) Section 905.4 "Location of Class I Standpipe Hose Connections" of the 2013 California Building Code is amended by adding Item 7 to read as follows:

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

(i) Section 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" of the 2013 California Building Code is deleted in its entirety and replaced 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.

- (j) Section 907.3.1 "Duct smoke detectors" of the 2013 California Building Code is deleted in its entirety and replaced as follows:

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

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

- (k) Section 907.5.2.2 "Emergency voice/alarm communication systems" of the 2013 California Building Code is amended to read 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-1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

- (l) Section 907.6.3.2 "High-Rise Buildings" of the 2013 California Building Code is amended to read 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.

- (m) Section 907.6.5 "Monitoring" of the 2013 California Building Code is amended to read 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."

- (n) Table 1505.1 of the 2013 California Building Code is amended to read as follows:

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

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

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

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

- (o) Section 1505.1.3 of the 2013 California Building Code is 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.

- (p) Section 1505.5 "Non-classified Roofing" of the 2013 California Building Code is deleted in its entirety without replacement.

- (q) Section 1505.7 "Special Purpose Roofs" of the 2013 California Building Code is deleted in its entirety without replacement.

- (r) Section 3109.4.4 "Private Swimming Pools (Statewide)" of the 2013 California Building Code is amended by adding Sections 3109.4.4.9 and 3109.4.4.10 to read as follows:

**3109.4.4.9 Waste Water Disposal.** No direct or indirect connection shall be made between any storm drain, sewer, drainage system, seepage pit, underground leaching pit, or subsoil drainage line, and any line connected to a swimming pool, unless approved by the Building Official.

Waste water from any filter, scum filter, scum gutter, overflow pool emptying line or similar apparatus or appurtenance shall discharge into an approved type receptor by air gap and subsequently into public sewer. The flood level rim of such receptor shall be at least six (6) inches above the flood level of the adjacent ground. Each such receptor, when permitted to be connected to any part of a drainage system shall be provided with an approved three (3) inch trap.

Plans and specifications for any deviation from the above manner of installation shall first be approved by the Building Official before any portion of any such system is installed.

**3109.4.4.10 Construction Requirements.**

(a) All pool construction shall be in conformance with engineered design for expansive soils, unless a soils report by a registered engineer approved by the Building Official indicates otherwise.

(b) The pool shall be constructed not less than seven (7) feet from the top of a cut, fill or natural earth slope, less than five (5) feet from toe of a cut, fill or natural earth slope not less than five (5) feet from the property line (measured from water line).

(c) A continuous inspection by a special inspector shall be required on all pools constructed of reinforced gunite, or reinforced cast in place concrete. Said special inspector shall insure all electrical bonding is properly installed; ensure all required reinforcing steel and diving board or slide anchor bolts are properly in place, ensure concrete is cast to the thickness required for expansive soil, ensure the concrete is properly placed; and take test samples during the placing of concrete and such samples shall be tested by an approved testing laboratory to attain a strength exceeding two thousand (2,000) psi, or as required by the design engineer at twenty-eight (28) days.

Should such test show the concrete to fail or to be of questionable quality or strength, the special inspector may require core tests to be taken upon approval of the Building Official. Special inspectors shall submit to the Building Official a written report showing the dates of inspection, and the result of the laboratory tests. The report shall indicate the reinforcing steel is per the approved drawings, expansive soil details were followed, the work complies with the approved drawings, this Code and footings and anchor bolts of diving boards and other pool accessories are adequate.

(s) Section 3405. 6 is added to the 2013 California Building to read as follows:

**3405.6 Seismic Evaluation and Design Procedures for Repairs.** The seismic evaluation and design shall be based on the procedures specified in the California Building Code, ASCE 31 *Seismic Evaluation of Existing Buildings* (for evaluation only) or ASCE 41 *Seismic Rehabilitation of Existing Buildings*. The procedures contained in Appendix A of the *International Existing Building Code* shall be permitted to be used as specified in Section 3403.5.1.1.3.

**3405.6.1 Compliance with CBC level seismic forces.** Where compliance with the seismic design provisions of the California Building

Code is required, the procedures shall be in accordance with one of the following:

1. One-hundred percent of the values in the California Building Code. Where the existing seismic force-resisting system is a type that can be designated as Ordinary, the values of  $R$ ,  $\Omega_o$ , and  $C_d$  used for analysis in accordance with Chapter 16 of the California Building Code shall be those specified for structural systems classified as Ordinary in accordance with Table 12.2-1 of ASCE 7, unless it is demonstrated that the structural system will provide performance equivalent to that of a Detailed, Intermediate or Special system.

2. Compliance with ASCE 41 using both BSE-1 and BSE-2 earthquake hazard levels and the corresponding performance levels in Table 3405.6.1.

**TABLE 3405.6.1  
PERFORMANCE CRITERIA FOR CBC LEVEL SEISMIC FORCES**

<b>OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL</b>
I	Life Safety (LS)	Collapse Prevention (CP)
II	Life Safety (LS)	Collapse Prevention (CP)
III	See Note a.	See Note a.
IV	Immediate Occupancy (IO)	Life Safety (LS)

a. Acceptance criteria for Occupancy Category III shall be taken as 80 percent of the acceptance criteria specified for Occupancy Category II performance levels, but need not be less than the acceptance criteria specified for Occupancy Category IV performance levels.

**3405.6.2 Compliance with reduced CBC level seismic forces.** Where seismic evaluation and design is permitted to meet reduced California Building Code seismic force levels, the procedures used shall be in accordance with one of the following:

1. The California Building Code using 75 percent of the prescribed forces. Values of  $R$ ,  $\Omega_o$ , and  $C_d$  used for analysis shall be as specified in Section 3405.6.1 Item 1.

2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A of the *International Existing Building Code* as specified in Items 2.1 and 2.2 below shall be deemed to comply with this section.

2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.

2.2. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A3.

3. Compliance with ASCE 31 based on the applicable performance level as shown in Table 3405.6.2. It shall be permitted to use the BSE-1 earthquake hazard level as defined in ASCE 41 and subject to the limitations in item 4 below.

4. Compliance with ASCE 41 using the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 3405.6.2. The design spectral response acceleration parameters  $S_{xs}$  and  $S_{x1}$  specified in ASCE 41 shall not be taken less than 75 percent of the respective design spectral response acceleration parameters  $S_{Ds}$  and  $S_{D1}$  defined by the *California Building Code* and its reference standards.

**TABLE 3405.6.2  
PERFORMANCE CRITERIA FOR REDUCED CBC  
LEVEL SEISMIC FORCES**

<b>OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 31</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL</b>
I	Life Safety (LS)	Life Safety (LS)
II	Life Safety (LS)	Life Safety (LS)
III	Note a, Note b	Note a
IV	Immediate Occupancy (IO)	Immediate Occupancy (IO)

a. Acceptance criteria for Occupancy Category III shall be taken as 80 percent of the acceptance criteria specified for Occupancy Category II performance levels, but need

not be less than the acceptance criteria specified for Occupancy Category IV performance levels.

- b. For Occupancy Category III, the ASCE screening phase checklists shall be based on the life safety performance level.

### 3405.6.3 Referenced Standards

Standard Reference Number	Title	Referenced In Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3405.6.1, TABLE 3405.6.1 3405.2.4.2, TABLE 3405.6.2
ASCE 41-06	Seismic Rehabilitation of Existing Buildings Including Supplement No. 1	3405.6.1, TABLE 3405.6.1 3405.6.2, TABLE 3405.6.2

- (t) Chapter 35 "Referenced Standards" of the 2013 California Building Code is amended by revising or adding the following sections:

1. **NFPA 13 2010 Edition, Installation of Sprinkler Systems is amended as follows:**

**Section 6.8.3 is amended to read 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-inch 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 in a conspicuous location and manufactured in a brass or bronze material (when placed on a building façade), or painted OSHA red (when placed on the ground). When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2½-inch inlets shall be provided.

**Section 8.3.3.1 is amended to read 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 added to read as follows:**

**8.17.1.1.1 Residential Waterflow Alarms.** A local water-flow alarm shall be provided on all new 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.

Exception: 1 and 2 unit residences.

**Section 11.1.1.2 is added to read 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 added to read 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 amended to read 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.

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

**Section 6.16.1 is amended to read as follows:**

**6.16.1** A local water-flow alarm shall be provided on all new 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.

**3. NFPA 13D 2013 Edition, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes is amended as follows:**

**Section 4.1.3 is added to read as follows:**

**4.1.3 Stock of Spare Sprinklers**

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.

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

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).

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 amended to read 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 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.
4. **NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems is amended as follows:**

**Section 7.3.1.1 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.**

5. **NFPA 24, 2013 Edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances is amended as follows:**

**Section 6.2.1.1 is added to read 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 deleted without replacement and (6) and (7) renumbered to read as follows:**

- (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 to read 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 added to read 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 amended to read 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 added to read as follows:**

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

**Section 10.6.3.1 is deleted and replaced to read 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 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.

- (u) Appendix N "Building Security" of the 2013 California Building Code is added to read as follows:

**Appendix N Building Security**

The provisions of this chapter shall apply to openings into all buildings, including dwelling units within apartment houses of Group R, Divisions 1, 2, and 3 Occupancies, and to openings between attached garages and dwelling units. Except for vehicular access, door openings in enclosed attached garages shall be in accordance with the provisions of this chapter.

**N101 Garage Type Doors.** Rolling Overhead, Solid Overhead, Swinging, Sliding or Accordion style doors shall conform to the following:

1. Fiberglass doors shall have panels a minimum density of six (6) ounces per square foot from the bottom of the door to a height of seven (7) feet. Panels above seven (7) feet and panels in residential structures shall have a density of not less than five (5) ounces per square foot.
2. Overhead doors shall be equipped with bolts which shall be capable of utilizing padlocks with a minimum nine-thirty-seconds-inch shackle.
3. Doors utilizing a cylinder lock shall have a minimum five-pin tumbler operation with the bolt or locking bar extending into the receiving guide a minimum of one (1) inch.
4. Doors that exceed sixteen (16) feet in width shall have two (2) lock receiving points, or if the door does not exceed nineteen (19) feet, a single bolt may be used if placed in the center of the door with the locking point located either in the floor or door frame header.
5. Slide bolt assemblies shall have a frame a minimum of 0.120 inches in thickness, a bolt diameter a minimum of one-half (1/2) inch and protrude at least one and one-half (1 1/2) inches into the receiving guide. A bolt diameter of three eighths (3/8) inch may be used in a residential building.
6. Slide bolt assemblies shall be attached to the door with bolts which are non-removable from the exterior. Rivets shall not be used to attach such assemblies.
7. Padlocks used with exterior mounted slide bolts shall have a hardened steel shackle a minimum of nine thirty-seconds (9/32) inch in diameter with heel and tow locking and a minimum five-pin tumbler operation. The key shall be non-removable when in an unlocked position."

**N102 Special Residential Building Provisions.** The following special provisions shall apply to all residential dwellings (R-1, R-2, and R-3):

1. Except for vehicular access doors, all exterior swinging doors of any residential building and attached enclosed garages, including the door leading from the garage area into the dwelling unit, shall be equipped as follows:
  - a. All wood doors shall be of solid core construction with a minimum thickness of one and three fourths (1 3/4) inches, or with panels not

less than nine-sixteenths (9/16) of an inch thick.

- b. A single or double door shall be equipped with a single cylinder deadbolt having a minimum protection of one (1) inch and an embedment of at least three-fourths (3/4) inch into the strike receiving the bolt. The bolt shall be constructed so as to resist cutting tool attacks.

The cylinder shall have a cylinder guard, a minimum of five (5) pin tumblers, and shall be connected to the inner portions of the lock by connecting screws of at least one-fourth (1/4) of an inch in diameter. (The provisions of the preceding paragraph do not apply where panic hardware is required or an equivalent device is approved by the enforcing authority. Further, a dual locking mechanism, constructed so that both the deadbolt and latch can be retracted by a single action of the inside door knob or lever, may be substituted provided it meets all other specifications for locking devices.)

- c. The inactive leaf on metal frame double doors shall be equipped with flush bolts having a minimum protection of five-eighths (5/8) of an inch at the top and bottom of the leaf. On wood frame double doors, the projection shall be a minimum of one (1) inch.
- d. Glazing in exterior doors or within forty (40) inches of a door locking mechanism shall be of fully tempered glass or rated burglary resistant glazing, except where double cylinder deadbolts are installed.
- e. All front exterior doors shall be equipped with a wide angle (one hundred eighty [180] degrees) door viewer, except where clear vision panels are installed.

2. Lighting in R-1 and R-2 type occupancies shall be as follows:

- a. Aisles, passageways and recesses related to and within the building complex shall be illuminated with a maintained minimum of twenty-five hundredths (.25) of a footcandle at the ground level during the hours of darkness. Lighting devices shall be protected by weather and vandalism resistant covers.
- b. Open parking lots and carports shall be illuminated with a maintained minimum of one (1) footcandle of light on the parking surface during hours of darkness. Lighting devices shall be protected by vandal resistant covers or lens. These lighting devices shall be automatically energized during hours of darkness.

- c. Luminaires utilized to meet the requirements of this section shall have vandal resistant light fixtures and be not less than three (3) feet in height from the walking surface when used to illuminate walkways and a minimum of seventy-eight (78) inches in height above the driving surface when illuminating surfaces associated with vehicles.
  - d. A site plan shall be provided showing buildings, parking area, walkways, detailed landscaping and a point-by-point photometric calculation of the required light levels. Landscaping shall not be planted so as to obscure required light levels. Footcandles shall be measured on a horizontal plane.
3. Each residential unit of R-1 and R-2 type occupancies shall have an enclosed parking space with a garage door equipped as in section N101 of this chapter.

**N103 Special Commercial Building. Provisions for other than Group R-1, R-2, R-3 and U-1.**

The following special provisions shall apply to buildings other than Group R-1, R-2, R-3 and U-1:

1. All exterior swinging doors shall be equipped with a single cylinder deadbolt. The bolt shall have a minimum projection of one (1) inch and will have an embedment of at least three-quarters (3/4) of an inch into the strike receiving the bolt. The bolt shall be constructed so as to resist cutting tool attacks. The cylinder shall have a cylinder guard, a minimum of five (5) pin tumblers and shall be connected to the inner portion of the lock by connecting screws of at least one-quarter-inch (1/4") diameter. (The provisions of the preceding paragraph do not apply where panic hardware is required or an equivalent device is approved by the enforcing authority.)
2. Wood doors shall be of solid core construction and have a minimum thickness of not less than one and three-fourths (1 3/4) inches.
3. Hollow metal doors shall be constructed of a minimum sixteen (16) U.S. gauge steel and have sufficient reinforcement to maintain the designed thickness of the door when any locking device is installed; such reinforcement being able to resist collapsing of the door around the locking device.
4. The inactive leaf on metal frame double doors shall be equipped with automatic flush bolts having a minimum projection of five-eighths (5/8) of an inch at the top and bottom of the leaf. On wood frame doors, the

projection shall be a minimum of one (1) inch.

5. Double doors shall have an astragal constructed of steel a minimum of 1/8 of an inch thick which will cover the opening between the doors. The astragal shall be a minimum of two (2) inches wide and extend a minimum of one (1) inch beyond the edge of the door to which it is attached. The astragal shall be attached to the outside of the active door by welding or non-removable bolts spaced apart on not more than ten (10) inches on center.
6. Any glazing utilized within forty (40) inches of any locking mechanism on a door shall be secured as follows:
  - a. Fully tempered glass or rated burglary resistant glazing; or
  - b. Iron or steel bars of at least one-half-inch round or one-inch by one-fourth-inch flat metal spaced not more than five (5) inches apart and secured on the inside of the building; or
  - c. Iron or steel grills of at least one-eighth-inch (1/8") metal with a maximum two-inch (2") mesh, secured on the inside of the building.

Items a. and b. above shall not interfere with the operation of opening windows if such windows are required to be operable by this Code.
7. Aluminum frame swinging doors shall conform to the following:
  - a. The jamb shall be so constructed or protected to withstand sixteen hundred (1,600) pounds of pressure in both a vertical distance of three (3) inches and a horizontal distance of one (1) inch each side of the strike, so as to provide violation of the strike.
  - b. The bolt projection shall be a minimum of one and one-half (1 1/2) inches; or, a hook shaped or similar bolt may be used as long as it engages the strike sufficiently to resist jamb spreading.
8. In multiple occupancy office buildings, all entrance doors to individual office suites shall meet the requirements for exterior doors.
9. Where panic hardware is required by this Code, or Title 19, it shall be equipped and installed as follows:
  - a. There shall be a minimum of two (2) locking points on each door; or

- b. On single doors, panic hardware may have one (1) locking point which is not to be located at either the top or bottom rails of the door frame. The door shall have an astragal constructed of steel 0.125 inches thick which shall be welded or attached with non-removable bolts to the outside of the door. The astragal shall extend a minimum of two (2) inches wide and extend a minimum of one (1) inch beyond the edge of the door; or
  - c. Double doors containing panic hardware shall have an astragal attached to the doors at their meeting point which will close the opening between them but not interfere with the operation of either door.
10. Exterior transoms or windows shall be deemed accessible if less than twelve (12) feet above ground or adjacent to any pedestrian walkway. Accessible windows and transoms not visible from a public or private thoroughfare and having a pane or opening exceeding ninety-six (96) square inches shall be constructed or protected as follows:
- a. Fully tempered or rated burglary resistant glazing shall be used; or
  - b. Interior steel or iron bars of at least one-half-inch (1/2") round or one-inch by one-quarter-inch (1" x 1/4") flat steel or iron may be used if spaced not more than five (5) inches apart and secured by bolts which are non-removable from the exterior; or
  - c. Interior iron or steel grills of at least one-eighth inch (1/8") metal having a mesh of not more than one (1) inch may be used if secured with bolts which are non-removable from the exterior.

Items a. and b. above shall not interfere with the operation of windows if such windows are required to be operable by this Code. The bars or grillwork shall be capable of quick opening from the inside only.

11. All hatchway openings on the roof of any building used for business purposes shall be secured as follows:
- a. If the hatchway is of wooden material it shall be covered on the inside with a minimum sixteen (16) gauge sheet metal or its equivalent, attached with screws.
  - b. The hatchway shall be secured from the inside with a slide bar or slide bolt. The slide bar or slide bolt shall automatically release when actuated by smoke or heat from a fire.

- c. Outside hinges on all hatchway openings shall be provided with non-removable pins and shall use non-removable screws for mounting.
12. All exterior air duct or air vent openings exceeding ninety-six (96) square inches shall be secured by one of the following means:
- a. Iron or steel bars of at least one-half-inch (1/2") round or one-inch by one-fourth-inch (1" x 1/4") flat metal, spaced no more than five (5) inches apart and secured by bolts which are non-removable from the exterior; or
  - b. Iron or steel grills having a minimum thickness of one-eighth-inch, a mesh of net not more than one-inch, and secured by bolts which are non-removable from the exterior.
  - c. The above must not interfere with any venting requirements.
13. Permanently affixed ladders leading to roofs shall be covered with sheet metal to a height of ten (10) feet. If the ladder protrudes more than six (6) inches from the building, the sides must also be covered with sheet metal. The covering shall be locked against the ladder by means of a case hardened hasp, secured with non-removable bolts or screws. If hinges are of the pin type, they shall be equipped with non-removable pins.
- Padlocks shall have hardened steel shackles, heel and toe locking, a minimum of five (5) pin tumblers in its operation and a non-removable key when in an unlocked position.
14. All exterior commercial doors shall be illuminated with a minimum of one (1) footcandle of light. Such lights shall be maintained during hours of darkness and be protected by vandal resistant covers.
15. Open parking lots providing more than ten (10) parking places and for use by the general public shall be provided with a maintained minimum of one (1) footcandle of light on the parking surface from dusk until the termination of business every operating day.
16. Every commercial building shall display an address number in a prominent position so that it shall be easily visible from the street. The numerals in these numbers shall be no less than six (6) inches in height, of a color contrasting to the background and located so that they may be clearly seen and read. Any business which affords vehicular access to the rear of the building through any driveway, alleyway or parking lot shall also display the same numbers on the rear of the building.

#### **N104 Definitions.**

**Approved.** Approved by the Building Official as meeting the requirements of this Chapter with regard to a given material, mode of construction, piece of equipment or device.

**Auxiliary Locking Device.** A secondary locking system added to the primary locking system to provide additional security.

**Bolt.** A metal bar which, when actuated, is projected (or thrown) either horizontally or vertically into a retaining member, such as a strike plate, to prevent a door from moving or opening.

**Part.** As distinguished from component, is a unit for subassembly, which combines with other units to make up a component.

**Primary Locking Device.** The single locking system on a door or window unit whose function is to prevent unauthorized intrusion.

**Single Cylinder Deadbolt.** A deadbolt lock which is activated from the exterior by a key and from the interior by a knob, thumb-turn, lever or similar mechanism.

**Solid Core Door.** A door composed of solid wood construction.

**Stile.** A vertical framing member of a window or door. A meeting stile is one which mates with a stile of another sash or a vertical framing member of a door or window frame when the sash is in the closed position.

**Strike.** A metal plate attached to or mortised into a door jamb to receive and to hold a projected latch bolt and/or deadbolt in order to secure the door to the jamb.

**Swinging Door.** A door hinged at the stile or at the head and threshold.

**U.L. Listed.** Tested and listed by Underwriters' Laboratories, Inc.

**N105 Keying Requirements.** Upon occupancy by the owner or proprietor, each single unit in a tract or commercial development, constructed under the same general plan, shall have locks using combinations which are interchangeable free from locks used in all other separate dwellings, proprietorships or similar distinct occupancies. This is intended to prohibit master keying.

The 2013 California Residential Code is amended as follows:

- (a) Section R301.2 of the 2013 California Residential Code is amended by revising Table R301 2(1) to read as follows:

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

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>c</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>b</sup>	FLOOD HAZARDS <sup>d</sup>	AIR FREEZING INDEX <sup>e</sup>	MEAN ANNUAL TEMP <sup>f</sup>
	Speed <sup>a</sup> (mph)	Topographic effects <sup>h</sup>		Weathering <sup>a</sup>	Frost line Depth <sup>b</sup>	Termite <sup>c</sup>					
Zero	85	No	D <sub>1</sub> or E	Negligible	0"	Very Heavy	43	No	NFP Maps 164, 166, 169, 277, 278, 279, 281, 282, and 283 in Community 235 December 3, 2009	0	60

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

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- b. The frost line depth may require deeper footings than indicated in Figure R403.1(1).
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the Building Official.
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
- h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html).
- j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html).
- k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

- (b) Section R313.1 "Townhouse Automatic Fire Sprinkler Systems" of the 2013 California Residential Code is amended to read as follows:

*See City of Tustin Fire Code, (TCC §§ 8100 & 8104).*

- (c) Section R313.2 "One- and Two-Family Dwellings Automatic Fire Systems" of the 2013 California Residential Code is amended to read as follows:

*See City of Tustin Fire Code, (TCC §§ 8100 & 8104).*

- (d) Section R403.1.3 "Seismic Reinforcing" of the 2013 California Residential Code is amended by deleting the exception.

- (e) Section R405.1 "Concrete or Masonry Foundations" of the 2013 California Residential Code is amended by deleting the exception.

- (f) Section R902.1 of the 2013 California Residential Code is deleted in its entirety and replaced 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.

- (g) Section R902.1.3 of the 2013 California Residential Code is deleted in its entirety and replaced 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.

- (h) Section R902.2, first paragraph; first sentence, of the 2013 California

Residential Code is amended to read:

**R902.2 Fire-retardant-treated shingles and shakes.** Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with Uniform Building Code (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.

- (i) Chapter 44 "Referenced Standards" of the 2013 California Residential Code is amended by adding the second paragraph to read:

For revisions to NFPA 13, 13R, 13D, 14, 24, and 72, refer to Fire Code Amendments Chapter 47 Referenced Standards.

#### 8104 AMENDMENT OF THE 2013 CALIFORNIA FIRE CODE

The 2013 California Fire Code is amended to read as follows:

- (a) Section 109.4 "Violation penalties" of the 2013 California Fire Code is amended to read 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 the Tustin City Code. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

- (b) Sections 109.4.2 "Infraction" is added to the 2013 California Fire Code to read 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 added to the 2013 California Fire Code to read 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" of the 2013 California Fire Code is amended by adding new definitions for "Approach-Departure Path," "Emergency Helicopter Landing Facility (EHLF)," "Flow-line," "Hazardous Fire Area," "Safety Area," and "Takeoff and Landing Area" and revising the definition for "High-Rise Building" 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 high rise building that is not intended to function as a heliport or helistop but is capable of accommodating fire, police, or medical helicopters engaged in emergency operations.

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

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

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

**Existing high-rise structure.** A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

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

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

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

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

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

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

- (e) Section 304.1.2 "Vegetation" of the 2013 California Fire Code [California Code of Regulations, Title 19, Division 1, §3.07(b)] "Clearances" subsection (7) is amended to read as follows:

(7) 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.

- (f) Section 305.5 "Chimney spark arresters" is added to the 2013 California Fire Code to read 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.

- (g) Section 319 "Development on or near land containing or emitting toxic, combustible or flammable liquids, gases or vapors" is added to the 2013 California Fire Code to read 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.

- (h) Section 320 "Fuel modification requirements for new construction" is added to the 2013 California Fire Code to read 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 OCFV Vegetation Management Guidelines currently in use at the time of plan submittal.

- (i) Section 321 "Clearance of brush or vegetation growth from roadways" is added to the 2013 California Fire Code to read 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.

- (j) Section 322 "Unusual circumstances" is added to the 2013 California Fire Code to read 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.

- (k) Section 323 "Use of equipment" is added to the 2013 California Fire Code to read 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.

- (l) Section 323.1 "Spark arresters" is added to the 2013 California Fire Code to read 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.

(m) Section 324 "Restricted Entry" is added to the 2013 California Fire Code to read 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.

(n) Section 325 "Trespassing on posted property" is added to the 2013 California Fire Code to read 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.**

(o) **Section 326 "Sky Lanterns or similar devices" is added to read as follows:**

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

**Exceptions:**

**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.**

(p) **All Sections of Chapter 4: "Emergency Planning and Preparedness" of the 2013 California Fire Code are deleted in their entirety except for the Sections listed below:**

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

(q) **Section 503.2.1 "Dimensions" of the 2013 California Fire Code is amended to read 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.

- (r) Section 503.2.1.1 "Hazardous Fire Areas" is added to the 2013 California Fire Code to read 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).

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.

- (s) Section 505.1 "Address Identification" of the 2013 California Fire Code is amended to read 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 4 inches high with a minimum stroke width of 0.5 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.

- (t) Section 510.1 "Emergency responder radio coverage" of the 2013 California Fire Code is amended to read 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 Ordinance 1337.

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.
- (u) Sections 510.2; 510.3; 510.4; 510.5; 510.6 of the 2013 California Fire Code are deleted in their entirety without replacement.
- (v) Section 608.1 "Scope" of the 2013 California Fire Code is amended to read 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.

- (w) Section 608.10 "Indoor charging of electric carts/cars" is added to the 2013 California Fire Code to read as follows:

**608.10 Indoor charging of electric carts/cars.** Indoor charging of electric carts/cars where the combined volume of all battery electrolytes 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

- (x) Section 903.2 "Where required" of the 2013 California Fire Code is amended to read as follows:

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

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202, regardless of fire areas or allowable area.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and one of the following conditions exists:
  - a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5000 square feet (465 m<sup>2</sup>) as defined in Section 202; or
  - b. When an addition exceeds 2000 square feet (186 m<sup>2</sup>) and the resulting building area exceeds 5000 square feet (465 m<sup>2</sup>) as defined in Section 202.

Exception:

Group R-3 occupancies shall comply with Section 903.2.8.

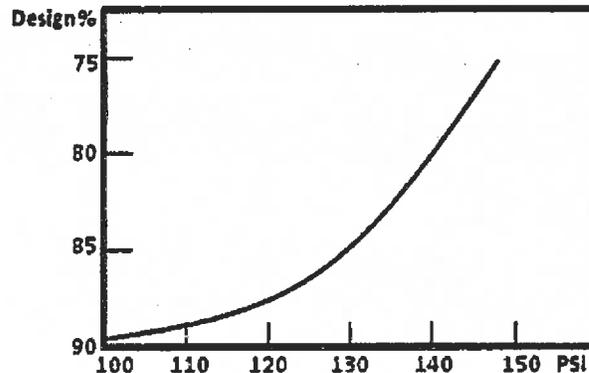
- (y) Section 903.3.5.3 "Hydraulically calculated systems" is added to the 2013 California Fire Code to read as follows:

**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**



- (z) Section 903.4 "Sprinkler system supervision and alarms" of the 2013 California Fire Code is revised by deleting item 3 and 5, and renumbering the remaining "Exceptions" to read 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.
- (aa) Section 905.4 "Location of Class I standpipe hose connections" of the 2013 California Fire Code is revised by adding item "7" to read 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.
- (bb) Section 907.2.13 "High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access" of the 2013 California Fire Code is amended to read 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

(cc) Section 907.3.1 "Duct smoke detectors" of the 2013 California Fire Code is amended to read 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.

- (dd) Section 907.5.2.2 "Emergency voice/alarm communication systems" of the 2013 California fire Code is amended to read 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.

- (ee) Section 907.6.3.2 "High-rise buildings" of the 2013 California Fire Code is amended to read 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.

- (ff) Section 907.6.5 "Monitoring" of the 2013 California Fire Code is amended to read 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."

- (gg) All Sections of Chapter 11 "Construction Requirements for Existing Buildings" of the 2013 California Fire Code are deleted in their entirety except for the Sections listed below:

1. 1103.7
2. 1103.7.3
3. 1103.7.3.1
4. 1103.7.8 – 1103.7.8.2
5. 1103.7.9 – 1103.7.9.10
6. 1103.8 – 1103.8.5.3
7. 1106

- (hh) Section 2008 Emergency Helicopter Landing Facility (EHLF) is added to the 2013 California Fire Code to read 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.

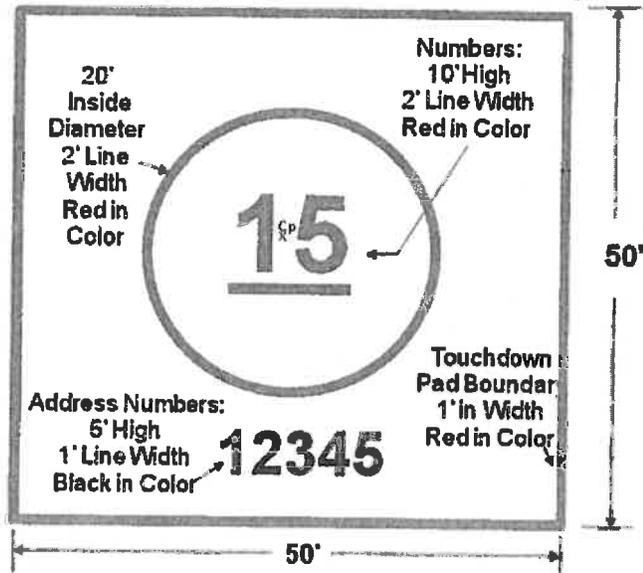
**2008.1.4 Safety Net.** If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/sf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing 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.

Figure 2008.1.7 Helicopter Landing Pad Markings



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

**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 CFC 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.

- (ii) Section 2801.2 "Permit" of the 2013 California Fire Code is amended to read as follows:

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

- (jj) Section 2808.2 "Storage site" of the 2013 California Fire Code is amended to read 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.

- (kk) Section 2808.3 "Size of piles" of the 2013 California Fire Code is amended to read 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.

- (ll) Section 2808.7 "Pile fire protection" of the 2013 California Fire Code is amended to read as follows:

**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.

- (mm) Section 2808.9 "Material-handling equipment" of the 2013 California Fire Code is amended to read as follows:

**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.

- (nn) Section 2808.11 "Temperature control" is added to the 2013 California Fire Code to read as follows:

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

- (oo) Section 2808.11.1 "Pile temperature control" is added to the 2013 California Fire Code to read as follows:

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

- (pp) Section 2808.11.2 "New material temperature control" is added to the 2013 California Fire Code to read 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.

- (qq) Section 4906.3 "Vegetation" of the 2013 California Fire Code, is amended by adding Section "5" to read as follows:

5. OCFA Vegetation Management Guidelines.

- (rr) Section 4908 "Fuel modification requirements for new construction" is added to the 2013 California Fire Code to read 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. 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.

(ss) Section 5001.5.2 "Hazardous Materials Inventory Statement (HMIS) of the 2013 California Fire Code is amended by revising the introductory paragraph and items 1 through 9 to read 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.

(tt) Table 5003.1.1(1) "Maximum Allowable Quantity per Control Area of Hazardous Materials Posing a Physical Hazard" of the 2013 California Fire Code is revised by deleting footnote "k" without replacement.

(uu) Section 5003.1.1.1 "Extremely hazardous substances" is added to the 2013 California Fire Code to read 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.

(vv) Section 5003.5 "Hazard identification signs" of the 2013 California Fire Code is revised by modifying the NFPA standard to read 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.

- (ww) Section 5503.4.1 "Identification signs" of the 2013 California Fire Code is amended to read 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.

- (xx) Section 5601.2 "Retail Fireworks" is added to the 2013 California Fire Code to read 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

- (yy) Section 5601.3 "Seizure of fireworks" is added to the 2013 California Fire Code to read 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.

- (zz) Section 5602 "Explosives and blasting" is added to the 2013 California Fire Code to read 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.

- (aaa) Section 5608.1 "General" of the 2013 California Fire Code is amended to read 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.

- (bbb) Section 5608.2 "Firing" of the 2013 California Fire Code is added to the 2013 California Fire Code to read as follows:

**5608.2 Firing.** All fireworks displays shall be electronically fired.

- (ccc) Section 5704.2.3.2 "Label or placard" of the 2013 California Fire Code is amended to read 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.

- (ddd) Section 6004.2.2.7 "Treatment system" of the 2013 California Fire Code is revised by modifying the exceptions to read as follows:

**Exceptions:**

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.

(eee) Chapter 80 "Referenced Standards" of the 2013 California Fire Code is amended as follows:

(1) NFPA 13, 2013 Edition, "Standard for the Installation of Sprinkler Systems" is amended as follows:

(a) Section 6.8.3 is amended to read 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 in a conspicuous location and manufactured in a brass or bronze material (when placed on a building façade), or painted OSHA red (when placed on the ground). 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.

(b) Section 8.3.3.1 is amended to read 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

(c) Section 8.17.1.1.1 "Residential waterflow alarms" is added to read as follows:

**8.17.1.1.1 Residential waterflow alarms.** A local water-flow alarm shall be provided on all new 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.

(d) Section 11.1.1.2 is amended to read 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.

(e) Section 11.2.3.1.1.1 is added to read 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.

(f) Section 23.2.1.1 is amended to read as follows:

**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.

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

(a) Section 6.16.1 is amended to read 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.

(3) NFPA 13D, 2013 Edition, "Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes" is amended as follows:

(a) Section 7.1.2 is amended to read 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.

(4) NFPA 14, 2013 Edition, "Installation of Standpipe and Hose Systems" is amended as follows:

(a) Section 7.3.1.1 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.**

(5) NFPA 24, 2013 Edition "Standard for the Installation of Private Fire Service Mains and Their Appurtenances" is amended as follows:

(a) Section 6.2.1.1 is added to read as follows:

**6.2.1.1 The closest upstream indicating valve to the riser shall be in a conspicuous location and manufactured in a brass or bronze material (when placed on a building façade), or painted OSHA red (when placed on the ground).**

(b) Section 6.2.11(5) is deleted without replacement and subsections (6) and (7) renumbered as following:

(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.

(c) Sections 6.3.3 and 10.1.6.3 are added to read as follows:

**6.3.3 All post indicator valves controlling fire suppression water supplies shall be in a conspicuous location and manufactured in a brass or bronze material (when placed on a building façade), or painted OSHA red (when placed on the ground).**

**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.**

(d) Section 10.3.6.2 is amended to read 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.

(e) Section 10.3.6.3 is added as follows:

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

(f) Section 10.6.3.1 is 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.

(g) Section 10.6.4 is amended to read 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.

## 8105 AMENDMENT OF THE 2013 CALIFORNIA PLUMBING CODE

The 2013 California Plumbing is amended as follows:

(a) Section 604.1 of the 2013 California Plumbing Code is amended by adding a new third paragraph to read as follows:

All metallic pipe, fittings and parts of fixtures buried in the ground shall be protected by at least 40 mils plastic sleeve or equivalent wrapping. Ferrous piping shall not be permitted under floor slab within a building.

- (b) Section 1208.5 of the 2013 California Plumbing Code is amended by adding a new second paragraph to read as follows:

Approved polyethylene or other pipe material approved for underground installation shall be used in exterior buried piping systems.

#### 8106 AMENDMENT OF THE 2013 CALIFORNIA ELECTRICAL CODE

The 2013 California Electrical Code is amended as follows:

- (a) Article 300.5 of the 2013 California Electrical Code is amended, by the addition of a new subsection (L) to read as follows:

300.5(L) Earth within the City of Tustin is corrosive, unless the permittee proves to the satisfaction of the Building Official the earth in the specific project area is not corrosive for the installation of the above noted electrical items in contact with or buried in the earth. Unless otherwise authorized by the Building Official, all such items embedded in the ground shall be protected by at least double, spiral wrapping, half overlapping with 10 mil plastic tape (total 40 mils cover), or approved equal.

- (b) Article 310.10 of the 2013 California Electrical Code is amended by adding a second paragraph to read as follows:

Aluminum conductors No. 6 and smaller shall require continuous inspection by an independent testing agency for proper torquing of connections at their termination point and prior approval by the building official.

#### 8107 UNDERGROUND UTILITIES

- (a) Whenever any property in any zone is developed with new or relocated buildings or structures, or whenever enclosed floor area in excess of 200 square feet is added to an existing building site in any zone, except zones permitted for single family residential use, or whenever a residential building or use is converted to any purpose or use other than that which existed at the time of conversion, all electrical, telephone, community antenna, television and similar service wires or cables which provide direct service to the property being developed, shall within the exterior boundary lines of such property, be installed underground.
- (b) For the purpose of this Section, appurtenances and associated equipment such as, but not limited to, surface mounted transformers, pedestal mounted terminal boxes and meter cabinets, may be placed above ground.
- (c) The developer or owner is responsible for complying with the requirements of this Section, and shall provide all necessary facilities on their premises so

as to receive such services from the supplying utility or utilities subject to the applicable rules, regulations, and tariffs of the respective utilities on file with the California Public Utilities Commission.

- (d) Where practical difficulties or unnecessary hardships inconsistent with the provisions of this chapter result from its literal interpretation or enforcement, the Planning Commission may waive, modify, or delay the application of any undergrounding requirement upon written request by a building site owner. Such request shall be filed with the Community Development Department and shall contain any and all facts which are offered in support.
- (e) If the Planning Commission's action is to delay the installation of required undergrounding utilities, it may require the building site owner to file with the City a cash deposit, and/or record a covenant sufficient to provide for the future installation of the underground features which are to be delayed. The amount of the cash deposit shall be determined by the Building Official.

#### 8108 AMENDMENT OF THE 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2013 California Green Building Standards Code is amended as follows:

- (a) Section 202 "Definitions" of the 2013 California Green Building Standards Code is amended by adding the following definition:

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

- (b) Section 4.304.1 "Irrigation controllers" of the 2013 California Green Building Standards Code is deleted in its entirety and replaced as follows:

**4304.1 Irrigation controllers.** Automatic irrigation system controllers for landscaping provided and installed at the time of final inspection and shall comply with the following:

1. Controllers shall be weather- or soil moisture-based irrigation controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects of

communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

8126 AMENDMENT OF THE 1997 UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS

The 1997 Uniform Code for the Abatement of Dangerous Buildings is amended as follows:

- (a) Chapter 6, Procedures for Conduct of Hearing Appeals, is amended as follows:

**Section 601.1 Hearing Examiners/Hearing Officers.** The Board may appoint one or more Hearing Examiners or Hearing Officers or designate one or more of its members to serve as hearing examiners to conduct the hearings. The Examiner/Officer hearing the case shall exercise all powers relating to the conduct of hearings until it is submitted to the board for decision.

**Section 601.1.1** Whenever used in this Code or by any other code referenced by this Code, the terms Hearing Officer and Hearing Examiner shall have the same meaning and may be used interchangeably.

**Section 601.1.2** Whenever the Board elects to appoint a Hearing Examiner or Hearing Officer pursuant to Section 601.1, said Examiner/Officer shall be selected pursuant to, and shall be subject to, the guidelines established by TCC section 1167.

**Section 604.8** In addition to the provisions of Sections 604.1 through 604.7, hearings conducted before a Hearing Officer or Hearing Examiner shall be subject to the provisions of TCC section 1168.

**Section 605.2** Where a case is heard by a Hearing Examiner or Hearing Officer the Examiner/Officer shall submit a written report to the Board consistent with the hearing officer guidelines established by TCC Section 1168 for consideration by the Board.

8127 AMENDMENT OF THE 1997 UNIFORM HOUSING CODE

The 1997 Uniform Housing Code is amended as follows:

- (a) Chapter 2, Enforcement, is amended as follows:

**Section 203 – Housing Advisory and Appeals Board/Building Board of Appeals**

**Section 203.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretations of this code, there shall be and is created a Housing Advisory and Appeals Board/Building Board of Appeals for the City of Tustin ("Board of Appeals") as set forth in 2013 CBC Section 113.1 as amended who are qualified by experience and training to pass upon matters pertaining to building construction and who are not employees of the jurisdiction. The Building Official shall be an ex officio member and shall act as secretary to said Board but shall have no vote upon any matter before the Board. The Board of Appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the Building Official. Appeals to the Board shall be processed in accordance with the provisions contained in Section 1201 of this code. Copies of all rules of procedure adopted by the Board shall be delivered to the Building Official, who shall make them accessible to the public.

**203.2 Limitations of Authority.** The Board of Appeals shall have no authority relative to interpretation of the administrative provision of this Code and the Board shall not be empowered to waive requirements of this Code.

- (b) Chapter 13, Procedures for Conduct of Hearing Appeals, is amended as follows:

**Section 1301.1 Hearing Examiners/Hearing Officers.** The Board may appoint one or more Hearing Examiners or Hearing Officers or designate one or more of its members to serve as hearing examiners to conduct the hearings. The Examiner hearing the case shall exercise all powers relating to the conduct of hearings until it is submitted to the board for decision.

**Section 1301.1.1** Whenever used in this Code or by any other code referenced by this Code, the terms Hearing Examiner and Hearing Officer shall have the same meaning and may be used interchangeably.

**Section 1301.1.2** Whenever the Board elects to appoint a Hearing Examiner or Hearing Officer pursuant to Section 1301.1, said Examiner/Officer shall be selected pursuant to and shall be subject to the guidelines established by TCC section 1167.

**Section 1304.8** In addition to the provisions of Sections 1304.1 through 1304.7, hearings conducted before a Hearing Examiner or Hearing Officer shall be subject to the provisions of TCC section 1168.

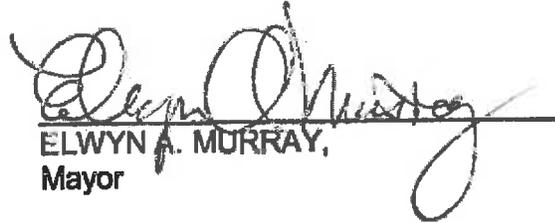
**Section 1305.2** Where a case is heard by a Hearing Examiner or Hearing Officer the Examiner/Officer shall submit a written report to the Board

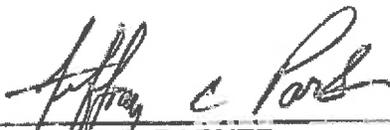
consistent with the Hearing Officer Guidelines established by TCC section 1168 for consideration by the Board.

**SECTION 3. Effective Date.** This ordinance shall become effective January 1, 2014.

**SECTION 4. Severability.** If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance is, for any reason, 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 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 section, subsection, subdivision, sentence, clause, phrase, or portion thereof be declared invalid or unconstitutional.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Tustin held on the 3<sup>rd</sup> day of December, 2013.

  
ELWYN A. MURRAY,  
Mayor

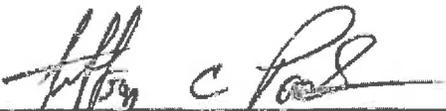
  
JEFFREY C. PARKER,  
City Clerk

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) SS  
CITY OF TUSTIN )

**CERTIFICATION FOR ORDINANCE NO. 1435**

I, JEFFREY C. PARKER, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, does certify that the whole number of the members of the City Council of the City of Tustin is 5; that the above and foregoing Ordinance No. 1435 was duly and regularly introduced at a regular meeting of the Tustin City Council, held on the 5<sup>th</sup> day of November, 2013 and was given its second reading, passed and adopted at a regular meeting of the City Council held on the 3<sup>rd</sup> day of December, 2013 by the following vote:

COUNCILPERSONS AYES:	<u>Murray, Puckett, Nielsen, Gomez, Bernstein</u>	<u>(5)</u>
COUNCILPERSONS NOES:	<u>None</u>	<u>(0)</u>
COUNCILPERSONS ABSTAINED:	<u>None</u>	<u>(0)</u>
COUNCILPERSONS ABSENT:	<u>None</u>	<u>(0)</u>

  
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JEFFREY C. PARKER,  
City Clerk