

BUILDING STANDARDS COMMISSION

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



April 6, 2011

Ted Halsey CBO, Building Official
City of Aliso Viejo
12 Journey Suite 100
Aliso Viejo, CA 92656

Dear Mr. Halsey:

This letter is to acknowledge receipt on February 2, 2011, of the City of Aliso Viejo submittal pertaining to Ordinance No. 2010-129 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications 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. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Enrique M. Rodriguez", is written over a horizontal line.

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

January 31, 2011

California Building Standards Commission
2525 Natomas Park Dr., Suite 130
Sacramento, California 95833-2936

RE: City of Aliso Viejo, Building Adoption Ordinance

Mr. Dave Walls:

The City of Aliso Viejo has adopted the current Building, Residential, Green Building Standards, Plumbing, Mechanical, and Electrical Codes of the State of California.

The City of Aliso Viejo has recommended changes and modifications to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Building and Residential Codes are reasonably necessary due to local conditions in the City of Aliso Viejo 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 Code or are reasonably necessary to safeguard life and property within the City of Aliso Viejo.

The enclosed City Ordinance is for your files.

If additional information is desired please telephone this office at (949) 425-2542.

Sincerely,



Ted Halsey CBO
Building Official

2011 FEB -2 A 11:00
CALIFORNIA BUILDING STANDARDS COMMISSION

Attachment: Ordinance 2010-129

ORDINANCE NO. 2010 - 129

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ALISO VIEJO AMENDING TITLE 13 OF THE ALISO VIEJO MUNICIPAL CODE AND ADOPTING BY REFERENCE THE CALIFORNIA BUILDING STANDARDS CODE, 2010 EDITION (CALIFORNIA CODE OF REGULATIONS, TITLE 24), CONSISTING OF THE CALIFORNIA BUILDING CODE, 2010 EDITION; THE CALIFORNIA RESIDENTIAL CODE, 2010 EDITION; THE CALIFORNIA ELECTRICAL CODE, 2010 EDITION; THE CALIFORNIA MECHANICAL CODE, 2010 EDITION; THE CALIFORNIA PLUMBING CODE, 2010 EDITION; THE CALIFORNIA GREEN BUILDING STANDARDS CODE, 2010 EDITION; THE CALIFORNIA ENERGY CODE, 2010 EDITION; THE CALIFORNIA ADMINISTRATIVE CODE, 2010 EDITION; AND THE CALIFORNIA REFERENCED STANDARDS CODE, 2010 EDITION AND ADOPTING BY REFERENCE THE INTERNATIONAL PROPERTY MAINTENANCE CODE, 2009 EDITION; THE UNIFORM SOLAR ENERGY CODE, 2009 EDITION; THE UNIFORM SWIMMING POOL, SPA AND HOT TUB CODE, 2009 EDITION; THE UNIFORM SOLAR ENERGY CODE, 2009 EDITION; AND MODIFICATIONS OF SUCH CODES

WHEREAS, pursuant to California Government Code Section 50022.1 *et seq.* the City of Aliso Viejo ("City") may adopt by reference the California Building Standards Code, 2010 Edition as provided in Title 24 of the California Code of Regulations and other model codes; and

WHEREAS, the California Building Standards Commission ("Commission") recently adopted the 2010 Edition of the California Building Standards Code; and

WHEREAS, California Health and Safety Code Section 17958.7 and 18941.5 authorize cities to adopt the California Building Standards Code with modifications determined to be reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, the City desires to adopt the California Building Standards Code and other model codes with the necessary amendments to assure the Codes are tailored to the particular safety needs of the City as required by its unique climatic, geological and topographical conditions; and

WHEREAS, the Fire Marshal and Building Official have recommended that changes and modifications be made to the California Building Standards Code, and have advised that certain changes and modifications to said Code are reasonably necessary due to local conditions within the City of Aliso Viejo, and have further advised that the remainder of the said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Code, or are reasonably necessary to safeguard life and property within the City of Aliso Viejo; and

WHEREAS, the Fire Marshal and Building Official have also recommended that changes and modifications be made to the California Building Standards Code, which are necessary for administrative clarification and to establish administrative standards for the effective enforcement of the building standards of the City of Aliso Viejo and do not modify a building standard pursuant to California Health & Safety Code Section 17958, 17958.7, and/or 18941.5; and

WHEREAS, the City held a public hearing on November 17, 2010 at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the Codes as amended herein; and

WHEREAS, the City published notice of the aforementioned public hearing pursuant to California Government Code Section 6066 on October 28, 2010 and November 4, 2010; and

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

The City Council of the City of Aliso Viejo does ordain as follows:

SECTION 1. Authority

The City Council enacts this Ordinance under the authority granted to the City as follows:

- A. California Government Code Section 50022 et seq. authorizes the City to adopt by reference the California Building Standards Code and authorizes the City to adopt other uniform codes by reference;
- B. California Health & Safety Code Section 17958.7 and 18941.5 authorize the City to adopt the California Building Standards Code with modifications determined to be reasonably necessary because of local climatic, geological or topographical conditions.

SECTION 2. Findings

A. Climatic Conditions:

- 1. Amendments to Sections 105.2, 202, 403.10.2, 403.11.1, 702A, 903.4, 907.11, 1505.1, 1505.1.3, 1613.7, and D103.4 of the 2007 Edition of the California Building Code and Section 310.2(B) and 310.16 of the 2007 Edition of the California Electrical Code are reasonably necessary due to the following climatic condition:

Orange County and the City of Aliso Viejo are located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of

drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

2. Amendments to Sections 111.4, 907.2.12, and 907.9.3 of the 2007 Edition of the California Building Code are reasonably necessary due to the following climatic condition:

The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange County Fire Authority's (Fire Department) ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the County.

3. Amendments to Section 702A of the 2007 Edition of the California Building Code are reasonably necessary due to the following climatic condition:

Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall, future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.

4. Amendments to Sections 111.4, 907.2.12, 907.2.12.1, 907.9.3, 910.3.2.2, and 1613.7 of the 2007 Edition of the California Building Code are reasonably necessary due to the following climatic condition:

These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal Fire Department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for firefighting by as much as 50 to 75 percent. In addition, untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of burning wooden roofs become flying brands and are carried by the wind to other locations and thereby spread fire quickly.

B. Topographical conditions:

Amendments to Sections 903.4, 907.9.3, and 1613.7 of the 2007 Edition of the California Building Code are reasonably necessary due to the following topographical conditions:

1. Natural slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change caused by the hills creates the geological foundation on which communities within Orange County are built and will continue to be built on. With much of the populated flatlands already built upon, future growth will occur in areas with steeper slopes and greater constraints in terrain.

2. 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 and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended Fire Department emergency response times that exceed the 5 minute goal.

3. Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene.

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

C. Geological conditions:

1. Amendments to Sections 412.5.1, 903.4, 905.4, 1614.1, 1614.1.1, 1614.A.1.8, 1908.17, 1908.17.1, and 1908.17.2 of the 2007 Edition of the California Building Code are reasonably necessary due to the following geological conditions:

Orange County and the City of Aliso Viejo are located in a highly active seismic area. There are earthquake faults that run along both the northeastern and southwestern boundaries of Orange County. The Newport-Inglewood Fault Zone (NIFZ), which runs through Orange County, was the source of the destructive 1933

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

2. Amendments to Sections 412.5.1, 903.4, 905.4, 1614.1, 1614.1.1, 1614.A.1.8, 1908.17, 1908.17.1, and 1908.17.2 of the 2007 Edition of the California Building Code are reasonably necessary due to the following geological conditions:

Traffic and circulation congestion presently existing in the City of ALISO VIEJO often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.

3. Amendments to Sections 412.5.1, 903.2, 903.2.7, and 907.2.12 of the 2007 Edition of the California Building Code are reasonably necessary due to the following geological conditions:

The City of Aliso Viejo is located in a seismically active area. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot-level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.

4. Amendments to Sections 412.5.1, 903.2, 903.2.7, and 907.2.12 of the 2007 Edition of the California Building Code are reasonably necessary due to the following geological conditions:

Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.

5. Amendments to Sections 412.5.1, 903.2, 903.2.7, and 907.2.12 of the 2007 Edition of the California Building Code are reasonably necessary due to the following geological conditions:

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

D. Other amendments:

All other changes to the codes referenced in this Ordinance are hereby found, declared and determined by the City Council to be primarily procedural and non-substantive, and therefore to be equivalent for the purposes intended by the original codes.

Section 3. Chapter 13.02 of Title 13 entitled "Building Regulations" to hereby amended to read in full as follows:

"CHAPTER 13.02 BUILDING REGULATIONS

- 13.02.010 Adoption of 2010 California Building Code and Related Codes.**
- 13.02.020 Violations.**
- 13.02.030 Board of Appeals.**
- 13.02.040 Fees.**
- 13.02.050 Administration.**
- 13.02.060 Amendments to Chapter 1 of the California Building Code.**
- 13.02.070 Amendments to Chapter 4 of the California Building Code.**
- 13.02.080 Amendments to Chapter 9 of the California Building Code.**
- 13.02.090 Amendments to Chapter 15 of the California Building Code.**
- 13.02.100 Amendments to Chapter 31 of the California Building Code.**
- 13.02.110 Amendments to Chapter 35 of the California Building Code.**
- 13.02.120 Amendments to the California Residential Code.**
- 13.02.130 Amendments to the California Green Building Standards Code.**

13.02.010 Adoption of 2010 the California Building Code and Related Codes.

The City Council, for the purpose of prescribing regulations for the erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of all

buildings and structures in the city, hereby adopts the following construction codes and the amendment to these codes set forth in this article; hereby adopts:

- A. The California Building Code, 2010 Edition, based on the 2009 International Building Code as published by the International Code Council, including Chapter 1;
- B. The California Residential Code, 2010 Edition, based on the 2009 International Residential Code as published by the International Code Council;
- C. The California Electrical Code, 2010 Edition, based on the 2008 National Electrical Code as published by BNI Publications, Inc;
- D. The California Mechanical Code, 2010 Edition, based on the 2009 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials;
- E. The California Plumbing Code, 2010 Edition, based on the 2009 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials;
- F. The California Green Building Standards Code, 2010 Edition as published by the California Building Standards Commission;
- G. The California Energy Code, 2010 Edition as published by the International Code Council;
- H. The California Administrative Code, 2010 Edition as published by the International Code Council;
- I. The California Referenced Standards, 2010 Edition as published by the International Code Council;
- J. The International Property Maintenance Code, 2009 Edition as published by the International Code Council;
- K. The Uniform Swimming Pool, Spa and Hot Tub Code, 2009 Edition as published by the International Association of Plumbing and Mechanical Officials;
- L. The Uniform Solar Energy Code; 2009 Edition as published by the International Association of Plumbing and Mechanical Officials;

The provisions of these codes as amended by this chapter ("Codes") shall constitute the Building Regulations of the City of Aliso Viejo. Where the California Code of Regulations and California Building Standards Code differ from any sections of the Codes, the State regulations shall prevail over the Codes, except as expressly provided in this chapter. The Codes are on file for public examination in

the office of the Building Official. Such Codes are hereby adopted and incorporated as though set forth in full in this section.

13.02.020 Violations.

For all sections of the Codes including any and all amendments to these Codes included within this chapter, the following shall apply pertaining to violations and shall replace any sections of those codes that pertain to violation.

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

Any person, firm, or corporation violating any of the provisions of this chapter, shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued, or permitted, and upon conviction of any such violation such persons shall be punished by a fine of not more than \$500.00 or by imprisonment for not more than six months, or by both such fine and imprisonment.

13.02.030 Board of Appeals.

For all sections of the Codes, including any and all amendments included within this chapter, the following shall apply pertaining to board of appeals and shall replace any sections of those codes that pertain to board of appeals.

In order to determine the suitability of alternate materials and methods of construction and provisions of these Codes, there shall be and there is hereby create a board of appeals, consisting of five members, composed of the mayor and the other members of the city council. Said members shall hold their respective membership on said board of appeals by reason of, and concurrently with their terms of service as council members and shall cease to be such members upon their ceasing to be such council members. The building official shall be the secretary of the board. The board may adopt reasonable rules and regulations for conducting its investigations and shall render all its decisions and findings on contested matters, in writing to the building official, with a duplicate copy thereof to any appellant or contestant affected by any such decision or finding, and may recommend to the city council such new legislation, if any, as is consistent therewith.

Three members of the board shall constitute a quorum. The mayor shall be the presiding officer of the board and in the mayor's absence the mayor pro-tem shall preside. Meetings shall be conducted in accordance with the Brown Act.

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

13.02.040 Fees.

For all sections of the Codes including any and all amendments included within this chapter, pertaining to fees are hereby amended to read as follows:

All fees shall be as set forth by resolution of the city council.

13.02.050 Administration.

For all administrative sections of the Codes, are hereby deleted and replaced by Chapter 1 of the 2010 California Building Code, as amended in this chapter.

13.02.060 Amendments to Chapter 1 of the California Building Code.

Chapter 1, Division II, Scope and Administration, is amended as follows:

SECTION 104.8 Liability is amended to include the following:

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

SECTION 105.2 Work Exempt From Permit is amended to remove Item 4 and revise Items 2 and 9 to read as follows:

Section 105.2(2)(4)(9). Work Exempt From Permit.

2. Walls and fences less than 42 inches in height.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 18 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.

SECTION 105.8 is added to read as follows:

Section 105.8. Reconstruction. If the value of the reconstruction (or renovations) of a building is equal to or exceeds 75 percent of the value of the building, the entire building shall comply with the code provisions for new construction. The value of the reconstruction (or renovation) for a

property shall include the value of all construction stemming from construction-related permits issued within the last two years.

SECTION 111.5 is added to read as follows:

Section 111.5. Declaration Of Intended Use. When required by the fire chief, with the concurrence of the building official, any or all owners of any occupancy may be required to record with the county recorder of the County of Orange a legal instrument of intended use. This legal instrument shall be called a declaration of intended use. The declaration of intended use shall be in accordance with the requirements of this section. It shall specifically state, by occupancy classification, all intended uses of all portions of the occupancy and may not be modified or withdrawn without the approval of the fire chief with the concurrence of the building official. Unapproved changes of occupancy or use can be cause for an immediate hearing before the building official and the fire chief or their designees. Such hearing shall be conducted to rule on the revocation of the certificate of occupancy and the revocation of all permits issued to all owners, tenants, operators and occupants of all portions of the occupancy. The declaration of intended use shall be binding on all present and future owners, tenants, operators and occupants.

SECTION 111.5.1 is added to read as follows:

Section 111.5.1 Certified Copies. A certified copy of the recorded declaration of intended use may be required to be filed with the building official and the fire chief before any certificate of occupancy and/or any permits are issued to any or all owners, tenants, operators or occupants of the occupancy.

13.02.070 Amendments to Chapter 4 of the California Building Code.

Chapter 4, Special Detailed Requirements Based On Use And Occupancy, is amended as follows:

SECTION 403 Heading is revised as follows:

SECTION 403 HIGH-RISE BUILDINGS HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS AND GROUP I-2 OCCUPANCIES HAVING OCCUPIED FLOORS LOCATED MORE THAN 75 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS

SECTION 403.1 Applicability is revised as follows:

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

SUBSECTION 403.1.1 Definitions is revised as follows:

HIGH-RISE BUILDING. In other than Group I-2 occupancies “high-rise buildings” as used by this Code:

1. “Existing high-rise structure” means a high-rise structure, the construction of which commenced or completed prior to July 1, 1974.
2. “High-rise structure” means every building of any type of construction or occupancy having floor used for human occupancy located more than 55 feet above the lowest floor level having building access (see Section 403.1.2), except buildings used as hospitals as defined by the Health and Safety Code Section 1250.
3. “New high-rise structure” means a high-rise structure, the construction of which commenced on or after July 1, 1974.

SUBSECTION [F] 403.4.7.2 Standby Power Loads is amended by deleting Item 2 and renumbering as follows:

Subsection [F] 403.4.7.2 Standby Power Loads. The following are classified as standby power loads:

1. Power and lighting for the fire command center required by Subsection 403.4.5; and
2. Standby power shall be provided for elevators in accordance with Sections 1007.4, 3003, 3007 and 3008.

SUBSECTION [F] 403.4.8.1 Emergency Power Loads is amended by adding Item 7 as follows:

Subsection [F] 403.4.8.1 Emergency Power Loads. The following are classified as emergency power loads:

1. Exit signs and means of egress illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications system;
4. Automatic fire detection systems;
5. Fire alarm systems;
6. Electrically powered fire pumps; and

7. Ventilation and automatic fire detection equipment for smoke-proof enclosures.

SECTION 412.2 Definitions 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.

SECTION 412.7 Heliports And Helistops is amended by adding Subsections 412.7.5 and 412.7.5.1 through 412.7.5.12 as follows:

Subsection 412.7.5. Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility (EHLF) shall be constructed as specified in Subsection 412.7.5.1 through 412.7.5.12.

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

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

Subsection 412.7.5.3 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated in plan from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing

pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

Subsection 412.7.5.4 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 feet in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.

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

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

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

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

Subsection 412.7.5.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

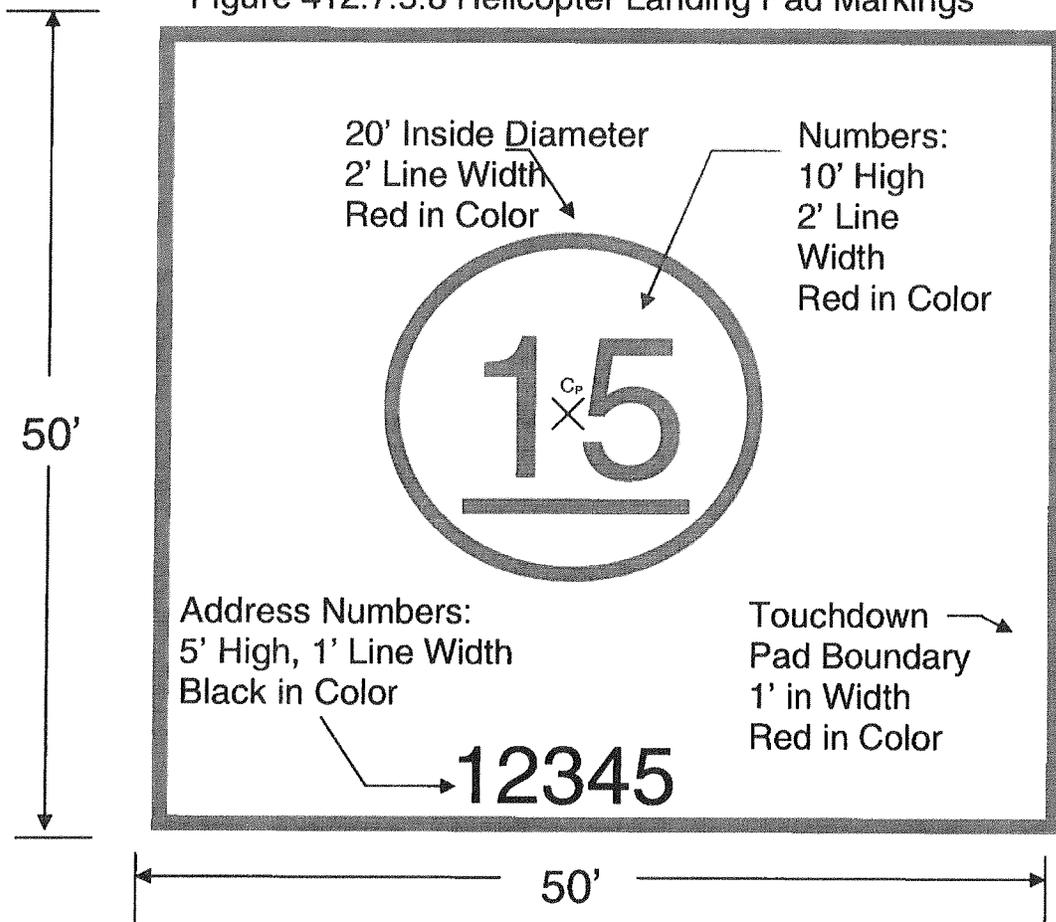
Subsection 412.7.5.10 Standpipe Systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5 inch outlet on a Class I or III standpipe.

Subsection 412.7.5.11 Fire Extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairways or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety

area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section 906.

Subsection 412.7.5.12 EHLF. Fueling, maintenance, repairs, or storage of helicopters is prohibited.

Figure 412.7.5.8 Helicopter Landing Pad Markings



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

13.02.080 Amendments to Chapter 9 of the California Building Code.

Chapter 9, Fire Protection Systems, is amended as follows:

SECTION [F] 903.2 Where Required, is amended to read as follows:

Section 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 Subsections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m²) as defined in Section 202, regardless of fire areas or allowable area.

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

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

- a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5,000 square feet (465 m²) as defined in Section 202; or
- b. When an addition exceeds 2,000 square feet (186 m²) and the resulting building area exceeds 5,000 square feet (465 m²) as defined in Section 202.

SUBSECTION [F] 903.2.8 Group R, is amended to read as follows:

Subsection 903.2.8. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area as follows:

1. New Buildings: An automatic sprinkler system shall be installed throughout all new buildings.
2. Existing Buildings: An automatic sprinkler system shall be installed throughout when the existing building area exceeds 3,600 square feet (334 m²) and when one of the following conditions exists:
 - a. When an addition is 33% or more of the existing building area, as defined in Section 202, within a two year period; or
 - b. An addition when the existing building is already provided with automatic sprinklers; or
 - c. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

SUBSECTION [F] 903.3.1.1.1 Exempt Locations, is amended by revising Item 4 as follows:

4. When approved by the fire code official, spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2 hour horizontal assemblies constructed in accordance with Section 712, or both.

SECTION [F] 903.4 Sprinkler System Supervision And Alarms, is revised by modifying Exception 1, deleting Exceptions 3 and 5, and renumbering the Exceptions as follows:

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

SUBSECTION [F] 904.3.5 Monitoring, is revised as follows:

Subsection [F] 904.3.5 Monitoring. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

SECTION [F] 905.4 Location Of Class I Standpipe Hose Connections, is amended by adding Items 7 and 8 as follows:

7. The centerline of the 2.5 inch (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) above and no more than 24 inches above the finished floor.
8. Every new building with any horizontal dimensions greater than 300 feet (91,440 mm) shall be provided with either access doors or a 2.5 inch outlets so that all portions of the building can be reached with 150 feet (46 m) of hose from an access door or hose outlet. Required access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8

inches (2,032 mm) in height. These doors are for fire department access only.

SUBSECTION [F] 907.2.13 High-Rise Buildings, is amended to read as follows:

Subsection [F] 907.2.13 High-Rise Buildings. High-rise buildings having occupied floors located more than 55 feet (16,769 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet (22,860 mm) above the lowest level fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Subsection 907.2.13.1, a fire department communication system in accordance with Subsection 907.2.13.2 and an emergency voice/alarm communication system in accordance with Subsection 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Subsection 907.2.22 and Section 412 of the California Building Code.
2. Open parking garages in accordance with Section 406.3 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 Subsection 503.1.1 of the California Building Code.
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

SUBSECTION [F] 907.3.1 Duct Smoke Detectors, is amended as follows:

Subsection [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.

SUBSECTION 907.5.2.2 Emergency Voice/Alarm Communication System, is revised as follows:

Subsection 907.5.2.2 Emergency Voice/Alarm Communication System. 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 water-flow 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 plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet, and Group I-2 occupancies having floors located more than 75 feet (22,860 mm) above the lowest level fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

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

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

SUBSECTION [F] 907.6.3.2 High-Rise Buildings, is amended to read as follows:

Subsection [F] 907.6.3.2 High-Rise Building. High-rise buildings having occupied floors located more than 55 feet (16,764 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having occupied floors located more than 75 feet (22,860 mm) above the lowest level fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

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

SUBSECTION [F] 910.3.2.2 Sprinklered Buildings, is amended to read as follows:

Subsection [F] 910.3.2.2 Sprinklered Buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100° F above the operating temperature of the sprinkler, unless otherwise approved.

13.02.090 Amendments to Chapter 15 of the California Building Code.

Chapter 15, Fire Classification, is amended as follows:

SECTION 1505, Table 1505.1 is amended to read as follows:

TABLE 1505.1
MINIMUM ROOF COVERING CLASSIFICATIONS
TYPES OF CONSTRUCTION

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

SUBSECTION 1505.1.3 Roof Coverings Within All Other Areas is amended to read as follows:

Subsection 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 A.

SECTION 1505.5 is amended by deletion of the entire section.

SECTION 1505.7 is amended by deletion of the entire section.

13.02.0100 Amendments to Chapter 31 of the California Building Code.

Chapter 31, Special Construction, is amended as follows:

SECTION 3109.2 Definitions is amended to read as follows:

Section 3109.2 Definitions. For the purpose of this section, certain terms, words and phrases are defined as follows:

ABOVE-GROUND/ON-GROUND POOL. See definition of "swimming pool."

BARRIER means a fence, wall, building wall, or a combination thereof, which completely surrounds the swimming pool and obstructs access to the swimming pool.

GRADE means the underlying surface such as earth or a walking surface.

HOT TUB. See definition of "swimming pool".

IN-GROUND POOL. See definition of "swimming pool".

SEPARATION FENCE means a barrier, which separates all doors of a dwelling unit with direct access to a swimming pool from the swimming pool.

SPA. See definition of "swimming pool".

SWIMMING POOL means any structure intended for swimming or recreational bathing that is designed to contain water over 18 inches deep. This includes in-ground, aboveground and on-ground swimming pools; hot tubs; portable and non-portable spas; and fixed in-place wading pools.

SWIMMING POOL, INDOOR is a swimming pool which is totally contained within a residential structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR is any swimming pool which is not an indoor pool.

SECTION 3109.4. Residential Swimming Pools is amended to add the following subsections to read as follows:

Subsection 3109.4.1.10 Disclosure Statement. The owner of the property where the swimming pool is located shall sign and file with the city, a disclosure statement certifying the homeowner's understanding of the potential life-safety hazards associated with a swimming pool and the need to maintain the barrier requirements set forth in Sections 3109.4.1.1 through 3109.4.1.9.

Subsection 3109.4.1.11 Maintenance. Failure to maintain the barrier or comply with all provisions of this section may result in an enforcement action by the city requiring the immediate draining of the pool. The pool shall not be refilled until such time compliance has been achieved with all provisions of this section. All swimming pool water shall be maintained in a clear condition, which is free of algae, insects, debris, and in a sanitary condition.

Subsection 3109.4.1.12 Approval. Plaster inspection or approval to fill the pool with water shall be withheld by the building official until there has been compliance with all provisions of this article.

Subsection 3109.4.1.13 Modifications. When there are practical difficulties involved in carrying out the provisions of this section, the building official may grant modifications for individual cases. The building official shall first find that a special individual reason makes the strict letter of this section impractical and that the modification is in conformance with the intent and purpose of this section and that such modification does not lessen the degree of protection afforded by the provisions of this section. The details of any action granting modifications shall be noted on the permit.

SUBSECTION 3109.4.1 Barrier Height And Clearances is amended to read as follows:

Subsection 3109.4.1 Barrier Height And Clearances. The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance at the bottom of the barrier may be increased to 4 inches when grade is a solid surface such as a concrete deck, or when the barrier is mounted on the top of the above ground pool structure. When barriers have horizontal members spaced less than 45 inches apart, the horizontal members shall be placed on the poolside of the barrier. Any decorative design work on the side away from the swimming pool, such as protrusions, indentations or cutouts, which render the barrier easily climbable, is prohibited.

SUBSECTION 3109.4.1.1 Openings is amended to read as follows:

Subsection 3109.4.1.1 Openings. Openings in the barrier shall not allow passage of a 4 inch-diameter sphere.

Exceptions:

1. When vertical spacing between such openings is 45 inches or more, the opening size may be increased such that the passage of a four-inch-diameter sphere is not allowed.
2. For fencing composed of vertical and horizontal members, the spacing between vertical members may be increased up to four inches when the distance between the tops of horizontal members is 45 inches or more.

SUBSECTION 3109.4.1.5 Chain Link Dimensions is amended to read as follows:

Subsection 3109.4.1.5 Chain Link Dimensions. Chain link fences used as a barrier shall not be less than 11 gauge and shall have a maximum mesh size of 1¼ inch square unless the fence is provided with slats fastened at

the top or the bottom which reduce the openings to no more than 1 ¾ inches.

SUBSECTION 3109.4.1.8 is amended to add Item (4) to read as follows:

4. Where a wall of a Group R, Division 3 Occupancy dwelling unit serves as part of the barrier and contains door openings between the dwelling unit and the outdoor swimming pool, which provide direct access to the pool, a separation fence measuring at least 48 inches above grade measured on the side of the barrier, which faces away from the swimming pool is required.

SUBSECTION 3109.4.4.2 is amended to add the following subsection to read as follows:

Subsection 3109.4.4.2.1. Whenever a building permit is issued for construction of a new private pool or spa at a residence, or any building permit is issued for remodeling of an existing pool or spa at a residence, it shall meet all of the following requirements:

1. The suction outlet of the pool or spa shall for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in Item (2).
2. The swimming pool or spa shall have at least two circulation drains per pump that shall be hydraulically balanced and symmetrically plumbed through one or more "T" fittings, and that are separated by a distance of at least three feet in any dimension between the drains.
3. Suction outlets that are less than 12 inches across shall be covered with anti-entrapment grates, as specified in the ASME/ANSI Standard A 112.19.8, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area, and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.
4. Any backup safety system that an owner of a new swimming pool or spa may chose to install in addition to the requirements set forth in Items (1) and (2) shall meet the standards as published in the document, "Guidelines for Entrapment Hazards: Making Pools and Spas Safer," Publication Number 363, march 2005, United States Consumer Product Safety Commission.

13.02.110 Amendments to Chapter 35 of the California Building Code.

Chapter 35 Reference Standards, is amended as follows:

NFPA 13, 2010 Edition, Installation Of Sprinkler Systems is amended as follows:

SUBSECTION 6.8.3 is revised as follows:

Subsection 6.8.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2½ inch inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The size of piping and the number of inlets shall be approved by the fire chief. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2½ inch inlets shall be provided. FDC may be located within 150 feet of a private fire hydrant when approved by the fire chief.

SUBSECTION 8.3.3.1 is revised as follows:

Subsection 8.3.3.1. When fire sprinkler systems are installed in shell buildings of undetermined use (Spec. Buildings) other than warehouses (S occupancies), fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Sprinklers in light hazard occupancies shall be one of the following:

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

SUBSECTION 8.16.1.1.1 is added as follows:

Subsection 8.16.1.1.1 Residential Water-flow Alarms. Local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

SUBSECTION 8.17.2.4.6 is revised as follows:

Subsection 8.17.2.4.6 Fire department connections shall be on the street side of buildings and shall be located and arranged so that they are immediately adjacent to the approved fire department access road and that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fence, posts, or other fire department connections.

SUBSECTION 11.1.1.2 is added as follows:

Subsection 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 reductions in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new occupancy.

SUBSECTION 11.2.3.1.1.1 is added as follows:

Subsection 11.2.3.1.1.1 The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the fire code official:

1. Subtract the project site elevation from the low water level for the appropriate pressure zone and multiplying the result by 0.433.
2. Use a maximum of 40 psi, if available.
3. Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California. The result shall be adjusted in accordance with the graduated scaled found in the guideline.

SUBSECTION 22.1.3 (43) is revised as follows:

Subsection 22.1.3 (43) Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in the flow tests shall be shown. Flow test shall be completed within six months of the plan submittal to the authority having jurisdiction.

NFPA 13R, 2010 Edition, Installation Of Sprinkler System In Residential Occupancies Up To And Including Four Stories in Height, is amended as follows:

SUBSECTION 6.16.1 is revised as follows:

Subsection 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 2010 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm 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.

SUBSECTION 6.6.6 is revised as follows:

Subsection 6.6.6 Sprinklers shall not be required in penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel fired-equipment.

SUBSECTION 6.6.9 is added as follows:

Subsection 6.6.9 Sprinklers shall not be required in attics that are not located over dwelling units. When attics are separated by unit, each unit's attic space may be protected per NFPA 13D Section 8.6.4.2. All other attics shall be protected per NFPA 13.

NFPA 13D, 2010 Edition, Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

SUBSECTION 4.1.5.1 Stock Of Spare Sprinklers is added as follows:

Subsection 4.1.5.1 Stock Of Spare Sprinklers. 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.

SUBSECTION 4.1.5.2 is added as follows:

Subsection 4.1.5.2 The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property.

SUBSECTION 4.1.5.3 is added as follows:

Subsection 4.1.5.3 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).

SUBSECTION 4.1.5.4 is added as follows:

Subsection 4.1.5.4 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.

SUBSECTION 7.1.2 is revised as follows:

Subsection 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 7.3 Pressure Gauges is deleted and substituted with the following:

Section 7.3. Pressure Gauges. At least one water pressure gauge shall be installed on the riser assembly.

SECTION 7.6 Alarms is deleted in its entirety and replaced as follows:

Section 7.6 Alarms. Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum of 15 dBA above the average ambient sound level but not less than 75 dBA. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exception:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.
2. When smoke detectors specified under CBC Section 310.9 are used to sound an alarm upon water-flow switch activation.

SUBSECTION 8.6.4.2 is added as follows:

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

NFPA 14, 2007 Edition, Installation Of Standpipe And Hose Systems is amended as follows:

SUBSECTION 6.4.5.4.1 is deleted in its entirety and replaced as follows:

Subsection 6.4.5.4.1 The fire department connection shall have a minimum of two 2½ inches, internal threaded (NHS) inlets. Additional inlets shall be provided on a 250 GPM per inlet ratio to meet the system demand. The inlets shall be provided with approved caps to protect the system from entry of debris. The location of the FDC shall be approved and be no more than 150 feet from a public hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red.

SUBSECTION 7.3.1.1 is deleted in its entirety and replaced as follows:

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

NFPA 24, 2010 Edition, Installation Of Private Fire Service Mains And Their Appurtenances is amended as follows:

SUBSECTION 5.9.1.3 is revised as follows:

Subsection 5.9.1.3 The fire department connection shall be of an approved type and contain a minimum of two 2½ inch inlets. The location shall be approved and be no more than 150 feet from a public fire hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. The supply pipe shall be painted OSHA safety red.

SUBSECTION 5.9.1.3.1 is added as follows:

Subsection 5.9.1.3.1 When the sprinkler density design is 500 gpm (including the interior hose stream demand) or greater, or a standpipe system is included, four 2½ inch inlets shall be provided.

SUBSECTION 5.9.1.3.2 is added as follows:

Subsection 5.9.1.3.2 The fire department connection (FDC) may be located within 150 feet of a private fire hydrant provided the FDC connects down-stream of an aboveground sprinkler system check valve.

SUBSECTION 6.2.1.1 is added as follows:

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

SUBSECTION 6.2.11 (5) is deleted without replacement.

SUBSECTION 6.2.11 (6) is revised as follows:

Subsection 6.2.11 (6) Control valves in a one-hour fire-rated room accessible from the exterior.

SUBSECTION 6.2.11 (7) is deleted without replacement.

SUBSECTION 6.3.3 is added as follows:

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

SUBSECTION 10.1.6.3 is added as follows:

Subsection 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: 316 Stainless Steel pipe and fittings.

SUBSECTION 10.3.5.2 is revised as follows:

Subsection 10.3.5.2 All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material, prior to poly-tube, and after installation.

SUBSECTION 10.3.5.3 is added as follows:

Subsection 10.3.5.3 All bolts used in pipe-joint assembly shall be 316 stainless steel.

SUBSECTION 10.6.3.1 is revised as follows:

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

SUBSECTION 10.6.5 is revised as follows:

Subsection 10.6.5 Pipe Joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints.

NFPA 72, 2010 Edition, National Fire Alarm Code is amended as follows:

SUBSECTION 14.2.1.2.3 is revised as follows:

Subsection 14.2.1.2.3 If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner's designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

SUBSECTION 23.8.2 Fire Alarm Control Units is revised as follows:

Subsection 23.8.2.2 Except as permitted in Subsection 23.8.2.3, the fire alarm systems components shall be permitted to share control equipment or shall be able to operate as stand-alone subsystems, but in any case, they shall be arranged to function as a single system and send a single signal to a central, remote, or proprietary station.

SUBSECTION 23.8.2.3 is deleted without replacement.

SUBSECTION 26.2.3.1 is amended by modifying the first paragraph as follows:

Subsection 26.2.3.1 Supervising station customers or clients and the fire code official shall be notified in writing within 7 days of any scheduled

change in service that results in signals from their property being handled by a different supervising station facility.

13.02.120 Amendments to the California Residential Code.

Chapter 3, Building Planning, is amended as follows:

SECTION R301.2 Climatic And Geographic Design Criteria is amended as follows:

Section R301.2 Climatic And Geographic Design Criteria, Table R301.2(1) Climatic And Geographic Design Criteria.

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

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ⁱ
	Speed ^d (mph)	Topographic effects ^k		Weathering ^a	Frost line Depth ^b	Termite ^c					
Zero	85	No	D ₂ or E	Severe	12-24"	Very Heavy	50	No	04-19-2006 2006-082	0	64

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

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

Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at www.ncdc.noaa.gov/fpsf.html.

- j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.
- k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

SUBSECTION R403.1.3 Seismic Reinforcing is amended by deleting the "Exception" from the end of this subsection for one and two-family dwellings which are three stories or less and constructed with stud bearing walls.

SECTION R405.1 Concrete Or Masonry Foundations is amended by deleting the "Exception" from the end of this section for foundations installed on well-drained ground or sand-gravel mixture soils.

SECTION R902.1 Roofing Covering Materials is amended as follows:

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

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets, clay or concrete roof tile, or slate installed on noncombustible decks.

SUBSECTION R902.1.3 Roof Coverings Within All Other Areas is amended as follows:

Subsection 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 a Class A.

SECTION R902.2 Fire-Retardant-Treated Shingles And Shakes is amended as follows:

Section R902.2 Fire-Retardant-Treated Shingles And Shakes. Wood shakes and shingles are not allowed within the City of Aliso Viejo."

13.02.130 Amendments to the California Green Building Standards Code.

SECTION 202 Definitions 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.

SECTION 4.304.1 Irrigation Controllers is amended to read as follows:

Section 4.304.1 Irrigation Controllers. Automatic irrigation system controllers for landscaping provided and installed at the time of final inspection 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 or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input."

SECTION 4. EFFECTIVE DATE

This ordinance and all codes referenced in this ordinance shall take effect upon the later of (1) 30 days from the adoption of this ordinance or (2) January 1, 2011. Projects for which a building permit application and building plans have been submitted prior to the effective date of this ordinance, and for which building permits have been obtained within 180 days from the effective date of this ordinance, shall be exempt from the provisions of this ordinance. Projects for which a building permit application and building plans have been submitted prior to the effective date of this ordinance, and building permits have not been obtained within 180 days from the effective date of this ordinance, shall be subject to all provisions of this ordinance and the codes referenced in this ordinance.

SECTION 5. REPEAL OF CONFLICTING ORDINANCES

Ordinance No. 2007-091, all former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance or of the California Building Standards Code, as adopted and amended herein, are hereby repealed.

SECTION 6. 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 or competent jurisdiction, such decision shall not affect the validity of the

remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance, and each section, subsection, subdivision, sentence, clause, phrases, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof, be declared invalid or unconstitutional.

SECTION 7. CITY CLERK'S CERTIFICATION

The City Clerk shall certify to the adoption of this Ordinance and cause the same to be posted at the duty designated posting places within the City and published once within fifteen (15) days after passage and adoption as required by law; or, in the alternative, the City Clerk may cause to be published a summary of this Ordinance in the Office of the City Clerk five (5) days prior to the date of adoption of this Ordinance, and, within fifteen (15) days after adoption, the City Clerk shall cause to be published the aforementioned summary and shall post a certified copy of this Ordinance, together with the vote for and against the same, in the Office of the City Clerk.

PASSED, APPROVED, AND ADOPTED THIS 17th day of November 2010.



Phillip B. Tsunoda, Mayor

ATTEST:



Susan A. Ramos, City Clerk

APPROVED AS TO FORM:



Scott Smith, City Attorney

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss.
CITY OF ALISO VIEJO)

I, SUSAN A. RAMOS, City Clerk of the City of Aliso Viejo, California, DO
HEREBY CERTIFY that foregoing Ordinance No. 2010-129 was duly passed and
adopted at a regular meeting of the City Council held on the 17th day of November 2010
by the following vote, to wit:

AYES: COUNCIL MEMBERS: MAYOR TSUNODA, MAYOR PRO TEM
CAVE, COUNCILMEMBERS FICKE
AND PHILLIPS

NOES: COUNCIL MEMBERS: NONE

ABSENT: COUNCIL MEMBERS: COUNCILMEMBER GARCIA



SUSAN A. RAMOS
CITY CLERK

(SEAL)

I hereby certify that the foregoing is the original of Ordinance No. 2010-129 duly passed
and adopted by the Aliso Viejo City Council at their regular meeting held November 17,
2010 and that Summary of the Ordinance was published on November 25, 2010, in the
Aliso Viejo News.



SUSAN A. RAMOS
CITY CLERK

(SEAL)