

**BUILDING STANDARDS COMMISSION**

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



May 20, 2011

Paul Melby, Building Official  
City of Rancho Santa Margarita  
22112 El Paseo  
Rancho Santa Margarita, CA 92688

Dear Mr. Melby:

This letter is to acknowledge receipt on May 20, 2011 of the City of Rancho Santa Margarita submittal pertaining to Ordinance No. 10-08 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".

Enrique M. Rodriguez  
Associate Construction Analyst

cc: Chron  
Local Filings



## CITY OF RANCHO SANTA MARGARITA

5/13/11

California Building Standards Commission  
2525 Natomas Park Dr., Suite 120  
Sacramento, California 95833

*Mayor*

L. Anthony Beall

*Mayor Pro Tempore*

Vacant

*Council Members*

Steven Baric

Jerry Holloway

Jesse Petrilla

*City Manager*

Steven E. Hayman

RE: City of Rancho Santa Margarita, Building Ordinance

Mr. Dave Walls:

The City of Rancho Santa Margarita has adopted the current Building, Plumbing, Mechanical, Electrical, Residential, Green Building and Existing Building Codes of the State of California.

The City of Rancho Santa Margarita has recommended changes and modifications to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Codes are reasonably necessary due to local conditions in the City of 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 Rancho Santa Margarita.

The enclosed City Ordinance is for your files.

If additional information is desired please telephone this office at (949) 635-1800

Sincerely,

Paul Melby C.B.O.

Building Official

City Of Rancho Santa Margarita

22112 El Paseo

Rancho Santa Margarita, CA 92688

ORDINANCE NO. 10-08

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RANCHO SANTA MARGARITA CALIFORNIA, AMENDING TITLE 10 (BUILDINGS AND CONSTRUCTION) OF THE RANCHO SANTA MARGARITA MUNICIPAL CODE IN ITS ENTIRETY TO ADOPT THE 2010 EDITION OF THE CALIFORNIA CODE OF REGULATIONS (TITLE 24 – BUILDING STANDARDS) AND RELATED MODEL CODES WITH APPENDICES AND AMENDMENTS

**WHEREAS**, pursuant to California Government Code Section 50022.1 *et seq.*, the City of Rancho Santa Margarita ("City") may adopt by reference the California Building Standards Code, 2010 Edition, as provided in Title 24 and 25 of the California Code of Regulations; and

**WHEREAS**, the California Building Standards Commission ("Commission") recently adopted new amendments to the California Building Standards Code; and

**WHEREAS**, California Health & Safety Code Sections 17958 *et seq.*, and 18941.5 authorize cities and counties to modify the California Building Standards Code by adopting more restrictive standards and modifications if such standards and modifications are accompanied by express findings that they are reasonably necessary because of local climatic, geological, or topographical conditions; and

**WHEREAS**, based upon the recommendations of the Fire Marshal and the Building Official, the City Council finds that the proposed amendments to the 2010 California Building Standards Code set forth in this Ordinance are more restrictive than the standards adopted by the California Building Standards Commission, would decrease the potential incidence of property damage, injury and death due to fires and earthquakes, and are reasonable and necessary to mitigate local climatic, geological or topographical conditions; and

**WHEREAS**, the City held a public hearing on November 10, 2010, at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the California Building Standards Code as amended herein; and

**WHEREAS**, pursuant to Government Code Section 6066, the City published notice of the aforementioned public hearing on October 13, 2010; and

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

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO SANTA MARGARITA DOES HEREBY ORDAIN AS FOLLOWS:

**SECTION 1.** Title 10 (Buildings and Construction) of the Rancho Santa Margarita Municipal Code is hereby amended in its entirety to read as follows:

**Title 10**

**Buildings and Construction**

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CALIFORNIA BUILDING  
STANDARDS COMMISSION

**Chapter 10.01 Authority, Purpose and Findings**

Section 10.01.010 Authority, Purpose and Findings

**Chapter 10.02 California Building Code - Adoption**

Section 10.02.010. Adoption of California Building Code and Related Model Codes.

**Chapter 10.03 Amendments to California Building Code**

Section 10.03.010 Amendment to Section 113.  
Section 10.03.020 Amendment to Section 403.  
Section 10.03.030 Amendment to Section 412.  
Section 10.03.040 Amendment to Section 903.  
Section 10.03.050 Amendment to Section 904.  
Section 10.03.060 Amendment to Section 905.  
Section 10.03.070 Amendment to Section 907.  
Section 10.03.080 Amendment to Section 910.  
Section 10.03.090 Amendment to Section 1505.  
Section 10.03.100 Amendment to Chapter 3109.  
Section 10.03.110 Amendment to Chapter 35.

**Chapter 10.04 International Property Maintenance Code**

**Chapter 10.05 California Electrical Code**

**Chapter 10.06 California Plumbing Code**

**Chapter 10.07 California Mechanical Code**

**Chapter 10.08 Amendments to California Residential Code**

Section 10.08.010 Amendment to Table R301.2(1).  
Section 10.08.020 Amendment to Section R313.  
Section 10.08.030 Amendment to Section R403.  
Section 10.08.040 Amendment to Section R405.  
Section 10.08.050 Amendment to Section R902.

**Chapter 10.09 Amendments to California Green Building Standards Code**

Section 10.09.010 Amendment to Section 202.  
Section 10.09.020 Amendment to Section 4.304.

**Chapter 10.10 California Fire Code-Adoption**

Section 10.10.010 Adoption of California Fire Code

**Chapter 10.11 Amendments to California Fire Code**

Section 10.11.010 Amendment to Section 105.  
Section 10.11.020 Amendment to Section 109.  
Section 10.11.030 Amendment to Section 202.  
Section 10.11.040 Amendment to Section 304.  
Section 10.11.050 Amendment to Section 305.5.  
Section 10.11.060 Addition of Section 318.  
Section 10.11.070 Addition of Section 319.  
Section 10.11.080 Addition of Section 320.  
Section 10.11.090 Addition of Section 321.  
Section 10.11.100 Addition of Section 322.  
Section 10.11.110 Addition of Section 322.2.  
Section 10.11.120 Addition of Section 323.  
Section 10.11.130 Addition of Section 324.

Section 10.11.140	Addition of Section 325.
Section 10.11.150	Amendment to Chapter 4.
Section 10.11.160	Amendment to Section 503.
Section 10.11.170	Amendment to Section 505.
Section 10.11.180	Amendment to Section 507.
Section 10.11.190	Amendment to Section 510.
Section 10.11.200	Amendment to Section 604.
Section 10.11.210	Amendment to Section 606.
Section 10.11.220	Amendment to Section 608.
Section 10.11.230	Addition of Section 610
Section 10.11.240	Amendment of Chapter 8.
Section 10.11.250	Amendment to Section 903.
Section 10.11.260	Amendment to Section 904.
Section 10.11.270	Amendment to Section 905.
Section 10.11.280	Amendment to Section 907.
Section 10.11.290	Amendment to Section 910.
Section 10.11.300	Amendment to Section 1102.
Section 10.11.310	Addition of Section 1108.
Section 10.11.320	Amendment to Section 1901.
Section 10.11.330	Amendment to Section 1908.
Section 10.11.340	Amendment to Section 2308.
Section 10.11.350	Amendment to Section 2701.
Section 10.11.360	Amendment to Section 2703.
Section 10.11.370	Amendment to Section 3203.
Section 10.11.380	Amendment to Section 3301.
Section 10.11.390	Amendment of Section 3308.
Section 10.11.400	Amendment to Section 3404.
Section 10.11.410	Amendment to Section 3704.
Section 10.11.420	Amendment to Section 4503.
Section 10.11.430	Amendment to Section 4504.
Section 10.11.440	Amendment to Chapter 46.
Section 10.11.450	Amendment to Chapter 47.
Section 10.11.460	Amendment to Section 4906.
Section 10.11.470	Addition of Section 4908.
Section 10.11.480.	Addition of Section 4909.
Section 10.11.490	Amendment to Appendix B.

SECTION 2. Chapter 10.01 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

### **Chapter 10.01 Authority, Purpose and Findings**

#### **Sec. 10.01.010 Authority, Purpose and Findings**

(a) Authority. Health and Safety Code Section 17958 et seq., requires that the City adopt ordinances and regulations imposing the same requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922. Health and Safety Code Sections 17958.5 and 18941.5 permit the City to make changes or modifications to the codes as are reasonably necessary because such changes or modifications are needed due to climatic, geographic, or topographic conditions.

(b) Purpose. The Fire Marshal and City Building Official recommend that certain changes and modifications to the 2010 Codes are reasonably necessary due to local conditions within the City, certain changes and modifications are of an administrative

or procedural nature or concern themselves with subjects not covered by the Codes, and certain changes and modifications are reasonably necessary to safeguard life and property within the City of Rancho Santa Margarita.

(c) Findings of local conditions.

1. Climatic Conditions:

A. Orange County and the City of Rancho Santa Margarita are located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

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

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

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

2. Topographical Conditions:

A. Natural slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change cause by the hills creates the geological foundation on which communities within Orange County are built

and will continue to be built. With much of the populated flatlands already built upon, future growth will occur in areas with steeper slopes and greater constraints in terrain.

B. Road circulation features located throughout the County also make amendments reasonably necessary. Located through the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanied with occasional heavy rainfall, cause roadway flooding and landslides, and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended Fire Department emergency response times that exceed the 5 minute goal.

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

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

### 3. Geological Conditions:

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

earthquake standards of building codes places a building on the verge of being legally unsafe."

B. Traffic and circulation congestion presently existing in the City of Rancho Santa Margarita 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.

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

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

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

F. 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.

SECTION 3. Chapter 10.02 of Title 10 of the Rancho Santa Margarita Municipal Code is deleted in its entirety and replaced as follows:

### **Chapter 10.02 California Building Code - Adoption**

#### **Sec. 10.02.010. Adoption of California Building Code and Related Model Codes.**

(a) The City Council adopts and incorporates by reference, as though set forth in full in this Section, the following construction codes subject to the modifications set forth in this Title 10:

1. The California Building Code, 2010 Edition, based on the 2009 International Building Code as published by the International Code Council;
2. The California Residential Code, 2010 Edition, based on the 2009 International Residential Code as published by the International Code Council;

3. The California Green Building Standards Code, 2010 Edition;
4. The California Plumbing Code, 2010 Edition, based on the 2009 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials;
5. The California Mechanical Code, 2010 Edition, based on the 2009 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials;
6. The California Electrical Code, 2010 Edition, based on the 2008 National Electrical Code as published by the National Fire Protection Association;
7. The 2009 International Property Maintenance Code, as published by the International Code Council.

(b) The provisions of these Codes, as amended by this Title 10, shall constitute the Building Regulations of the City of Rancho Santa Margarita and shall be known as the "Rancho Santa Margarita Building Code."

**SECTION 4.** Chapter 10.03 of Title 10 of the Rancho Santa Margarita Municipal Code is deleted in its entirety and replaced as follows:

#### **Chapter 10.03 Amendments to California Building Code**

##### **Sec. 10.03.010 Amendment to Section 113.**

- (a) Section 113.1 is amended to read as follows:

**113.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall consist of five members, composed of the mayor and the other members of the City Council. Said members shall hold their respective membership on said board of appeals by reason of, and concurrently with their terms of service as Council members and shall cease to be such members upon their ceasing to be Council members. The building official shall be the secretary of the board. The board may adopt reasonable rules and regulations for conducting its investigations and shall render all its decisions and findings on contested matters in writing to the building official, with duplicative copy thereof to any appellant or contestant affected by any such decision of finding.

Three members of the board shall constitute a quorum. The mayor shall be the presiding officer of the board. Meetings shall be conducted in accordance with the Brown Act.

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

- (b) Section 113.3 is deleted in its entirety without replacement.

##### **Sec. 10.03.020 Amendment to Section 403.**

- (a) The title of Section 403 is amended to read 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**

- (b) Section 403.1 is amended to read as follows:

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

- (c) 403.1.1 Definitions (HIGH-RISE BUILDING) is amended to read 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

- (d) Section 403.4.7.2 is amended to delete #2 and is renumbered as follows:

**[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 Section 403.4.5;
2. Standby power shall be provided for elevators in accordance with Sections 1007.4, 3003, 3007 and 3008.

- (e) Section 403.4.8.1 is amended to read as follows:

**[F] 403.4.8.1 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 smokeproof enclosures.

**Sec. 10.03.030 Amendment to Section 412.**

- (a) Section 412.2, Definitions, is amended to add 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 412.7 is amended to add the following subsections:

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

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

412.7.5.2 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.

412.7.5.3 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated in plan from

each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

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

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

412.7.5.6 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.

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

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

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

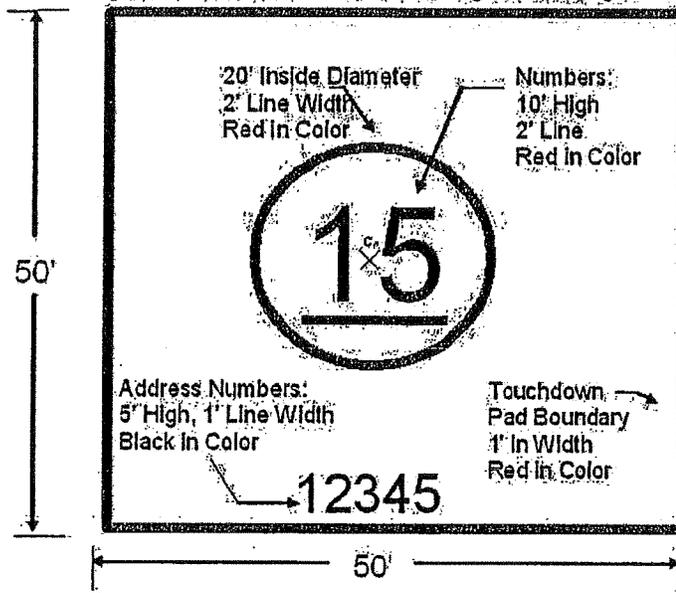
412.7.5.10 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

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

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

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

Figure 1108.1.7 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).

**Sec. 10.03.040 Amendment to Section 903.**

(a) Section 903.2 is amended to read as follows:

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

1. New buildings: In addition to the requirements of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area, as defined in Section 502.1, exceeds 5,000 square feet (465 m<sup>2</sup>), or more than two stories in height, regardless of fire areas or allowable area.

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

2. Existing buildings: Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and when one of the following conditions exists:
  - a. When the addition is 33% or more of the existing building area and the resulting building area, as defined in Section 502.1, exceeds 5000 square feet (465 m<sup>2</sup>); or
  - b. When the addition exceeds 2000 (185.81 m<sup>2</sup>) square feet and the resulting building area, as defined in Section 502.1, exceeds 5000 square feet (465 m<sup>2</sup>); or
  - c. An additional story is added above the second floor regardless of fire areas or allowable area.

Exception: Group R-2 and R-3 occupancies.

- (b) Section 903.2.8, Group R is amended to read as follows:

**[F] 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 one of the following conditions exists:
  - a. When an addition is 33% or more of the existing building area, as defined in Section 502.1, and greater than 1000 square feet (92.903 m<sup>2</sup>) cumulative within a two year period; or
  - b. An addition is added and 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.

Exception: Notwithstanding Subsection 2(b), Group R-2 and R-3 Occupancies.

(c) Section 903.3.1.1.1 is amended to revise 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.

(d) Section 903.4 is amended to read as follows:

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

Exceptions:

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

**Sec. 10.03.050 Amendment to Section 904.**

(a) Section 904.3.5 is amended to read as follows:

**[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.

**Sec. 10.03.060 Amendment to Section 905.**

(a) Section 905.4 is amended to add Items 7 and 8 as follows:

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

1. In every required stairway, a hose connection shall be provided for each

floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by the fire code official. See Section 909.20.3.2 for additional provisions in smokeproof enclosures.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exception: Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a nozzle attached to 100 feet (30 480 mm) of hose, as measured along the path of travel, a hose connection shall not be required at the horizontal exit.

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a hose connection located either on the roof or at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations. The distance from a hose connection shall be measured along the path of travel.

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.

8. Every new building with any horizontal dimensions greater than 300 feet (91 440 mm) shall be provided with either access doors or 2.5 inch (64 mm) outlets so that all portions of the building can be reached with 150 feet (45 720 mm) 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 (2032 mm) in height. These doors are for fire department access only.

**Sec. 10.03.070 Amendment to Section 907.**

- (a) Section 907.2.13 is amended as follows:

**[F] 907.2.13 High-rise buildings Having Occupied Floors Located More Than 55 Feet Above the Lowest Level of Fire Department Access and Group I-2 occupancies Having Floors Located More Than 75 Feet Above the Lowest Level Fire Department Vehicle Access.** High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412
2. Open parking garages in accordance with Section 406.3
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1
4. Low-hazard special occupancies in accordance with Section 503.1.1
5. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system

- (b) Section 907.3.1 is amended to read 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.

- (c) Section 907.5.2.2 is amended to read as follows:

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

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

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

- (d) Section 907.6.3.2 is amended to read as follows:

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

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

**Sec. 10.03.080 Amendment to Section 910.**

- (a) Section 910.3.2.2 is amended to read as follows:

**[F] 910.3.2.2 Sprinklered buildings.** Where installed in buildings provided 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.

**Sec. 10.03.090 Amendment to Section 1505.**

- (a) Table 1505.1 is deleted in its entirety and replaced 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.

- (b) Section 1505.1.3 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.

- (c) Section 1505.5 is deleted without replacement.
- (d) Section 1505.7 is deleted without replacement.

**Sec. 10.03.100 Amendment to Section 3109.**

- (a) Section 3109.2 is amended to read as follows:

**3109.2 Definition.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meaning shown herein.

**BARRIER** A fence, wall, building wall or combination thereof that completely surrounds the swimming pool and obstructs access to the swimming pool.

**SWIMMING POOLS** Any body of water created by artificial means which is designed, intended for use, or used, for swimming or immersion purposes, which has a water depth exceeding eighteen (18) inches. The term "pool" includes swimming pools, spas, hot tubs, above and below ground, and vinyl-lined pools; "pool" does not include plumbing fixtures such as bathtubs nor does it apply to man-made lakes, reservoirs, farm ponds, or ponds used primarily for public park purposes, water conservation purposes, irrigation purposes or for the watering of livestock.

- (b) Section 3109.4.1 is amended to read as follows:

**3109.4.1 Barrier Height and Clearances.** The top of the barrier shall be at least sixty (60) inches above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be two (2) inches measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be four (4) inches.

- (c) Section 3109.4.1.7 is amended to read as follows:

**3109.4.1.7 Gates.** Access gates shall comply with the requirements of Sections 3109.4.1 through 3109.4.1.6 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device and shall be equipped with lockable hardware or padlocks and shall remain locked at all times when not in use. Release mechanisms shall be in accordance with Section 1008. Where release mechanisms of the self-latching device are located less than sixty (60) inches above grade measured on the side of the barrier that faces away from the swimming pool, the release mechanism shall be located on the pool side of the gate at least three (3) inches below the top of the gate and the gate barrier shall have no opening greater than one-half (1/2) inch within eighteen (18) inches of the release mechanism.

**Sec. 10.03.110 Amendment to Chapter 35.**

- (a) **NFPA 13, 2010 Edition, Installation of Sprinkler Systems** is amended as follows:

- (1) 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 size of piping and the number of inlets shall be

approved by the 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 2 ½" inlets shall be provided. FDC may be located within 150 feet of a private fire hydrant when approved by the chief.

- (2) 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 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

- (3) Section 8.17.1.1.1 is added as follows:

**8.17.1.1.1 Residential Waterflow Alarms.** 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 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.

- (4) Section 8.17.2.4.6 is amended to read as follows:

**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.

- (5) Section 11.1.1.2 is added as follows:

**11.1.1.2** When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction 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.

- (6) Section 11.2.3.1.1.1 is added as follows:

**11.2.3.1.1.1** The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the Fire Code Official:

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

- (7) Section 22.1.3 (43) is amended as follows:

**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.

(b) **NFPA 13R, 2010 Edition, Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height** is amended as follows:

- (1) Section 6.16.1 is amended to read as follows:

**6.16.1** A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 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.

- (2) Section 6.6.6 is amended to read as follows:

**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.

- (3) Section 6.6.9 is added as follows:

**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.

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

- (1) Section 4.1.5 is added as follows:

**4.1.5 Stock of Spare Sprinklers**

**4.1.5.1** 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.

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

**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).

**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.

- (2) 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.

- (3) Section 7.3.1 is amended to read as follows:

**7.3.1** At least one water pressure gauge shall be installed on the riser assembly.

- (4) Section 7.6 is amended to read as follows:

**7.6 Alarms.** Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide 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 waterflow switch activation.

- (5) Section 8.6.4.2 is added as follows:

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

(d) **NFPA 14, 2007 Edition, Installation of Standpipe and Hose Systems** is amended as follows:

- (1) Section 6.4.5.4.1 is amended to read as follows:

**6.4.5.4.1** The fire department connection shall have a minimum of two 2 ½ 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.

- (2) Section 7.3.1.1 is amended to read as follows:

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

(e) **NFPA 24, 2010 Edition, Installation of Private Fire Service Mains and Their Appurtenances** is amended as follows:

- (1) Section 5.9.1.3 is amended to read as follows:

**5.9.1.3** The fire department connection shall be of an approved type and contain a minimum of two 2 ½ 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.

- (2) Section 5.9.1.3.1 is added as follows:

**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 2 ½" inlets shall be provided.

- (3) Section 5.9.1.3.2 is added as follows:

**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.

- (4) Section 6.2.1.1 is added as follows:

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

- (5) Section 6.2.11 (5) is deleted without replacement.

- (6) Section 6.2.11 (6) is amended to read as follows:

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

- (7) Section 6.2.11 (7) is deleted without replacement.

- (8) Section 6.3.3 is added as follows:

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

- (9) Section 10.1.6.3 is added as follows:

**10.1.6.3** All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 316 Stainless Steel pipe and fittings

- (10) Section 10.3.5.2 is amended to read as follows:

**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.

- (11) Section 10.3.5.3 is added as follows:

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

- (12) Section 10.6.3.1 is amended 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 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 comply with 10.6.2.

- (13) Section 10.6.5 is amended to read as follows:

**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.

(f) **NFPA 72, 2010 Edition, National Fire Alarm Code** is amended as follows:

- (1) Section 14.2.1.2.3 is amended to read as follows:

**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.

- (2) Section 23.8.2.2 is amended to read as follows:

**23.8.2.2** 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.

- (3) Section 23.8.2.3 is deleted without replacement:

- (4) Section 26.2.3.1 is amended to read as follows:

**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.

**SECTION 5.** Chapter 10.04 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**Chapter 10.04 International Property Maintenance Code**

The International Property Maintenance Code is adopted with no amendments.

SECTION 6. Chapter 10.05 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**Chapter 10.05 California Electrical Code**

The California Electrical Code is adopted with no amendments.

SECTION 7. Chapter 10.06 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**Chapter 10.06 California Plumbing Code**

The California Plumbing Code is adopted with no amendments.

SECTION 8. Chapter 10.07 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**10.07 California Mechanical Code**

The California Mechanical Code is adopted with no amendments.

SECTION 9. Chapter 10.08 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**10.08 Amendments to California Residential Code**

**Sec. 10.08.010 Amendment to Table R301.2(1)**

(a) Table R301.2(1) is amended 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>9</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>8</sup>	FLOOD HAZARDS <sup>9</sup>	AIR FREEZING INDEX <sup>1</sup>	MEAN ANNUAL TEMP <sup>1</sup>
	Speed <sup>d</sup> (mph)	Topographic effects <sup>4</sup>		Weathering <sup>3</sup>	Frost line Depth <sup>b</sup>	Termite <sup>6</sup>					
Zero	85	No	D <sub>2</sub> or E	Negligible	12-24"	Very Heavy	43	No	See Exhibit B	0	60

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

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

- b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2( 4)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
- h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at [www.ncdc.noaa.gov/fpsf.html](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.

#### **Section 10.08.020 Amendment to Section R403.**

- (a) Section R403.1.3 is amended to delete the exception as follows:

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> masonry stem walls without solid grout and vertical reinforcing are not permitted.

~~Exception: In detached one and two-family dwellings which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting walls and isolated plain concrete footings supporting columns or pedestals are permitted.~~

#### **Section 10.08.030 Amendment to Section R405.**

- (a) Section R405.1 is amended as follows:

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

~~Exception: A drainage system is not required with the foundation is installed on well drained ground or sand gravel mixture soils according to~~

~~the Unified Soil Classification System, Group 1 Soils, as detailed in Table R405.4.~~

**Section 10.08.040 Amendment to Section R902.**

- (a) Section R902.1 is amended to read 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 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 and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

- (b) Section R902.1.3 is amended to read as follows:

**R902.1.3 Roof coverings within all other areas.** The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.

- (c) Section R902.2 is amended to modify the beginning paragraph as follows:

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

SECTION 10. Chapter 10.09 of Title 10 of the Rancho Santa Margarita Municipal Code is hereby deleted in its entirety and replaced as follows:

**Chapter 10.09 Amendments to California Green Building Standards Code**

**Sec. 10.09.010 Amendment to Section 202.**

- a) Section 202 is amended to add 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.

**Sec. 10.09.020 Amendment to Section 4.304.**

b) Section 4.304.1 is amended to read as follows:

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

SECTION 11. Chapters 10.12, 10.13, 10.14 and 10.15 of Title 10 of the Rancho Santa Margarita Municipal Code are hereby deleted without replacement.

SECTION 12. Upon the effective date of this Ordinance, all former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance or the codes herein adopted by reference and any other ordinance in conflict herewith are hereby repealed and declared to be of no further force and effect.

SECTION 13. The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to the California Code of Regulations, Title 14, Chapter 3, Sections 15060 (c) (2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060 (3) (the activity is not a project as defined in Section 153710) because it has no potential for resulting in physical change to the environment, directly or indirectly.

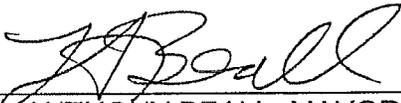
SECTION 14. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held out to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council of the City of Rancho Santa Margarita hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsection, sentence clause, phrases or portions be declared valid or unconstitutionally.

SECTION 15. Adoption includes the whole each thereof together with accumulative supplements, and associated standards referenced therein, including such portions as may be added by the provisions of this Ordinance, except such portions as may be deleted or modified by the provisions of this Ordinance.

SECTION 16. The City Clerk shall certify as to the adoption of this Ordinance and shall cause a summary thereof to be published within fifteen (15) days of the adoption and shall post a Certified copy of this Ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

PASSED, APPROVED AND ADOPTED THIS 8<sup>TH</sup> DAY OF DECEMBER 2010, BY VOTE AS FOLLOWS:

AYES:	5	COUNCIL MEMBERS:	Baric, Holloway, Petrilla, Mayor Pro Tempore Thompson, Mayor Beall
NOES:	0	COUNCIL MEMBERS:	None
ABSTAIN:	0	COUNCIL MEMBERS:	None
ABSENT:	0	COUNCIL MEMBERS:	None

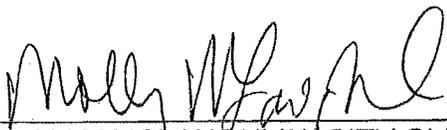
  
 \_\_\_\_\_  
 L. ANTHONY BEALL, MAYOR

ATTEST:

  
 \_\_\_\_\_  
 MOLLY MCLAUGHLIN, CITY CLERK

STATE OF CALIFORNIA )  
 COUNTY OF ORANGE ) ss  
 CITY OF RANCHO SANTA MARGARITA )

I, Molly McLaughlin, City Clerk of the City of Rancho Santa Margarita, California, DO HEREBY CERTIFY that the foregoing Ordinance No. 10-08 was regularly introduced and placed upon its first reading at a regular meeting of the City Council on the 10<sup>th</sup> day of November, 2010, and that thereafter, said Ordinance was duly adopted and passed at a regular meeting of the City Council on the 8<sup>th</sup> day of December, 2010.

  
 \_\_\_\_\_  
 MOLLY MCLAUGHLIN, CITY CLERK

AFFIDAVIT OF POSTING  
AND PUBLICATION

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss  
CITY OF RANCHO SANTA MARGARITA )

MOLLY MCLAUGHLIN, being first duly sworn, deposes and says:

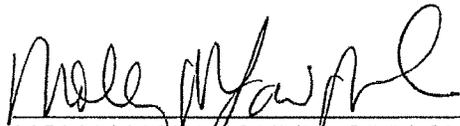
That she is the duly appointed and qualified City Clerk of the City of City of Rancho Santa Margarita;

That in compliance with State Laws of the State of California, ORDINANCE NO. 10-08, being:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RANCHO SANTA MARGARITA CALIFORNIA, AMENDING TITLE 10 (BUILDINGS AND CONSTRUCTION) OF THE RANCHO SANTA MARGARITA MUNICIPAL CODE IN ITS ENTIRETY TO ADOPT THE 2010 EDITION OF THE CALIFORNIA CODE OF REGULATIONS (TITLE 24 – BUILDING STANDARDS) AND RELATED MODEL CODES WITH APPENDICES AND AMENDMENTS

on the 14<sup>th</sup> day of December 2010, was published in the Orange County Register; and was, in compliance with City Resolution No. 00-01-06-07, on the 14<sup>th</sup> day of December, caused to be posted in three places in the City of Rancho Santa Margarita, to wit:

Rancho Santa Margarita City Hall  
Fire Station 45  
Trabuco Canyon Water District

  
\_\_\_\_\_  
MOLLY MCLAUGHLIN, CITY CLERK  
Rancho Santa Margarita, California