

	<p>CITY OF DANA POINT</p> <p>COMMUNITY DEVELOPMENT, BUILDING AND SAFETY</p> <p>33282 Golden Lantern, Suite 209 Dana Point, CA 92629 949 248-3594</p> <p style="text-align: right;"> www.danapoint.org</p>	<p>F001 – VHFHSZ</p>
		<p>2016 CALIFORNIA CODES</p> <p><small>CODE CYCLE</small></p>
		<p>01/01/2017</p> <p><small>EFFECTIVE DATE</small></p>
<p>VERY HIGH FIRE HAZARD SEVERITY ZONE</p>		

The City of Dana Point, in conjunction with the Orange County Fire Authority and the State of California office of the State Fire Marshal has adopted the current version of the High Fire Hazard Severity Zone (HFHSZ), Very High Fire Hazard Severity Zone (VHFHSZ) and Ember Zones 1 and 2.



The areas identified as either in or abutting the above fire hazard zones, including Ember Zone 1 and Ember Zone 2 have special construction considerations to protect properties from flames and the burning embers associated with the hazard zones. When an existing building undergoes alterations or additions, only those construction elements altered or added to the original structure are required to comply with this adoption.

The 2016 California Building Code Chapter 7A, Sections 701A through 710A and the 2013 California Residential Code section R337 have been adopted

with local amendments and affect some areas of our city.

This handout clarifies the construction elements associated with the fire hazards and applies to projects submitted for review after the adoption date effective June 1, 2012. Projects under review or construction where the submittal is prior to the adoption will continue under the old code provisions.

The Fire Sprinkler requirements have not changed with this adoption. An automatic fire sprinkler system is required for the following:

- All new residential construction or Addition of a second story.
- Additions over 750 square feet or Additions over 50% of the area.
- Additions and alterations, in any combination of area that exceed 50% or the total area.
- Additions and alterations to existing buildings with a fire sprinklers system installed.

These requirements are inclusive of all construction within the entire City of Dana Point, performed within any three (3) year period.

The following construction is exempt from the VHFHSZ requirements of this section:

- Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from an applicable building.
- Buildings classified as a group U agricultural Building as defined in section 202 of this code when located at least 50 feet from an applicable building.

ROOFS AND ROOFING MATERIALS

Roofs and roofing materials for structures located within the VHFHSZ or Ember Zones 1 & 2 shall comply with the 2016 CBC sections 7A and chapter 15 and 2016 CRC sections R327 and R902. All roofing and re-roofing shall be a Class A rated assembly. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.



When the roof profile allows for a space between the roof covering and the combustible roof deck, an ASTM E 108 Class A cap sheet shall be installed over the roof deck.

Where a roof valley flashing is installed, the flashing shall be not less than No. 26 gauge galvanized sheet corrosion-resistant metal installed over a 36" wide ASTM E-108 Class A cap sheet running the full length of the valley.

When installed, roof gutters shall be of a fire resistant material equal to the Class A roof

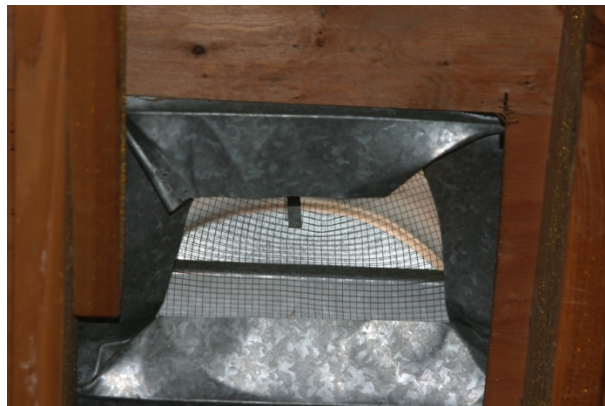
assembly and be provided with the means to prevent the accumulation of leaves and debris in the gutter.

When installed, skylights and sloped glazing must be of tempered glass or other approved and tested materials and meeting the requirements of the Class "A" roofing assembly.

Please note: Most plastic skylights and plastic sloped glazing do not meet the fire resistive requirements of the code. To install plastic skylights, the product must be listed, fire rated and tested by a nationally recognized testing laboratory.

VENTS

Ventilation located within the VHFHSZ and Ember Zones 1 & 2 for enclosed attics, enclosed rafter spaces and under floor ventilation shall be installed in accordance with the 2016 CBC section 1203, 2016 CRC R806 and the additional requirements of the VHFHSZ and Ember zones 1 & 2 sections and be designed to resist building ignition from the intrusion of burning embers and flame through the ventilation openings. The size of the openings is required to be from 1/16" to 1/8". The vent shall be of noncombustible materials.



Above is an exterior and interior view of a screened vent installation. Note the ¼" screen. Eaves and Cornices, openings on the underside of eaves and cornices are not approved.

Exceptions:

1. *The attic space being ventilating is fully protected by an automatic sprinkler system installed in accordance with CBC section 903.3.1.1*
2. *Vents which comply with the requirements of this section may be installed on the undersides of eaves when the exterior wall covering and exposed underside of the eave are of noncombustible materials or ignition-resistant material in accordance with CBC section 707A.3.*
3. *The enforcing agency may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.*

EXTERIOR WALLS, PROJECTIONS AND UNDERFLOOR PROTECTION



The following exterior covering materials and/or assemblies located within the VHFHSZ and Ember Zones 1 & 2 shall comply with this section:

- Exterior wall covering material.
- Exterior wall assembly.
- Exterior exposed underside of eaves overhangs.
- Exterior exposed underside of soffits, exterior balconies, and similar cantilevered projections extending beyond the floor areas.
- Exterior exposed underside of floor projections.
- Exterior exposed underside of unenclosed under floor areas.

Exceptions:

1. *Exterior wall architectural trim, embellishments, cornices, fascia and gutters.*
2. *Solid wood rafter tails and solid wood blocking installed between rafters having minimum 2" nominal thickness.*
3. *Decks shall comply with CBC section 709A.4 only.*

The exterior coverings materials and/or assemblies specified in this section shall comply with one of the following requirements:

- Non-combustible material.
- Ignition-resistant material.
- Heave Timber exterior wall assembly.
- Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1 for fire resistance.

Exceptions:

1. *One layer of 5/8" type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the studs.*
2. *The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the proprietary gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.*

The exterior wall covering shall extend from the top of the foundation to the roof and terminate at 2" nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

The underside of exposed roof deck between rafter tails or covering material applied directly to the rafter tails shall comply with protection requirements of this section.

Exception:

- A. *Solid wood rafter tails and solid wood blocking installed between rafters exposed on the underside of open eave overhangs having minimum dimension 2" nominal are not required to have protection.*

EXTERIOR WINDOWS AND DOORS

The following exterior glazing materials and/or assemblies located within the VHFHSZ shall comply with this section. It is recommended, but not required for Ember Zones 1 & 2.

- Exterior Windows.
- Exterior glazed doors.
- Glazed openings within exterior doors.
- Glazed openings within exterior garage doors.
- Exterior structural glass veneer.

Exterior windows and exterior glazed door assemblies shall comply with one of the following:

- Be constructed of multi-pane glazing with a minimum of one tempered pane meeting the requirements of CBC section 2406 safety glazing; **or**
- Shall be constructed of solid core wood having stiles and rails not less than 1-3/8" thick with interior field panel thickness no less than 1-1/4" thick; **or**
- Shall have a fire resistive rating of not less than 20 minutes when tested according to NFPA 252
Exception: Solid doors having a fire resistive rating of not less than 20 minutes may have untested glazing that complies with CBC section 708A2; **or**
- Shall be tested to meet the performance requirements of standard SFM 12-7A-1.

Glazing in exterior doors shall comply with CBC section 708A.2.1.

DECKING



The walking surface material of decks, porches, balconies and stairs located in the VHFHSZ and Ember Zone 2 shall comply with the requirements of this section when any portion of such surface is within 10 feet of the building.

The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials:

- Ignition-resistant material complies with the performance requirements of both SFM 12-7A-5 and SFM 127A-4, *or*
- Exterior fire retardant treated wood, *or*
- Non-combustible material, *or*
- Any material that complies with the performance requirements of SFM 12-7A-4A. When attached exterior wall covering is also either non-combustible or ignition-resistant materials.

Exemption: Wall materials may be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements of ASTM E-84 with a class B flame spread rating.

ACCESSORY STRUCTURES

Trellises, patios, carports, gazebos and similar structures of an accessory character within the VHFHSZ and Ember Zone 2 and located within 10 feet of an applicable building shall conform to the provisions of this section.



When required by the enforcing agency, accessory structures shall be constructed of non-combustible or ignition-resistant materials.

EXISTING BUILDINGS

2016 CBC Section 701A.3.1.1. Existing Buildings: When an existing building undergoes alterations or additions, only those construction elements altered or added to the original structure shall comply with this chapter.

EMBER ZONE 1



CBC Section 701A.3.2 Construction Features Designated by the Enforcing Agency:

Ember Zone 1.

New buildings and qualifying alterations/additions located within Ember Zone 1 for which an application for a building permit is submitted on or after the effective date of this ordinance shall comply only with the following CBC sections of this chapter:

- 703A - Standards of Quality, as applicable
- 704A - Ignition Resistant Construction, as applicable
- 705A - Roofing
- 706A – Vents

EMBER ZONE 2

CBC Section 701A.3.3 Construction Features Designated by the Enforcing Agency: **Ember Zone 2.**

New buildings and qualifying alterations/additions located within Ember Zone 2 for which an application for a building permit is submitted on or after the effective date of this ordinance shall comply only with the following sections of this chapter:

- 703A - Standards of Quality, as applicable
- 704A - Ignition Resistant Construction, as applicable
- 705A - Roofing
- 706A - Vents
- Decking
 - Decks, porches, balconies and stairs shall comply with the requirements of Section 709A when:
 - The walking surface area of a single deck or balcony is greater than 100 square feet (increased to 120 square feet when connected to a stair); and*
 - Located within 100 feet of fuel modification or open space containing unmanaged, non-irrigated vegetation.*
- Decking within a Fuel Modification Zone: Decking located within any portion of a fuel modification zone shall be entirely non-combustible.
- Accessory Structures:

Applicability. The provision of this section shall apply to patio covers located closer than 100 feet from fuel modification or open space containing unmanaged, non-irrigated vegetation.

Requirements. The patio covers shall be constructed of noncombustible or ignition-resistant materials.

Exception: When the construction features meet all of the following:

- Columns: Minimum dimension of 4x4 (nominal dimension in inches)*
- Horizontal beams: Minimum 4x6 (nominal dimension in inches)*
- Top horizontal members: A minimum of 2-inch spacing is provided between the members.*
- The ledger meets the ignition-resistant material definition as prescribed in CBC Section 702A.*

DEFENSIBLE SPACE



Defensible space is the required space between a structure and the wildland area that, under normal conditions, creates a sufficient buffer to slow or halt the spread of wildfire to a structure. It protects the home from igniting due to direct flame impingement and radiant heat. Compliance is essential for structure survivability during wildfire conditions. Defensible space requirements apply to all structures regardless of the year built. For an individual residential property, defensible space includes the area within the confines of the property lines.

Defensible space extends 100 feet out from buildings, structures, decks, etc. or to the property line and consists of;

- Remove all dead or dying vegetation
- Trim tree canopies regularly to keep their branches a minimum of 10 feet from structures and other trees
- Remove leaf litter (dry leaves and pine needles) from yard, roof, and rain gutters
- Remove combustible material and vegetation from around and under decks
- Remove or prune vegetation near windows
- Remove “ladder fuels” (low-level vegetation that allows the fire to spread from the ground to the tree canopy).
- Create a separation between low-level vegetation and tree branches. This can be done by reducing the height of low-level vegetation and/or trimming low tree branches.

Vegetation management is a key ingredient used for Fuel Modifications and creating defensible spaces. Both are required in all of the VHFHSZ, Ember Zones and Fuel Modification zones located within the City of Dana Point. The Orange County Fire Authority has specific guides detailing the undesirable plant species and has provided a guide for the recommended vegetation planting.

You may download the guides from either the City of Dana Point web site www.danapoint.org or the Orange County Fire authority web site www.ocfa.org or www.readyssetgooc.org.

