



SAN JOSE FIRE DEPARTMENT
Wildland-Urban Interface (WUI) Fire Conformance Policy
Effective Date: January 01, 2017

Wildfires are occurring with increasing frequency and intensity. Wildfires emit black and brown carbon aerosols into the atmosphere. The technology and strategies that are used to mitigate wildfire risk should also be sustainable solutions. Recent advancements in WUI and climate resiliency against wildfires include the use of satellite monitoring for fire and emissions detection, the improvement of risk assessment and fire propagation models, and the enforcement of WUI building code and policy. Hence, the mitigation of conditions where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses shall comply with this policy.

In accordance with the 2016 California Code of Regulations (CCR), Title 24, Part 9, known as the California Fire Code (CFC), San Jose Fire Department (SJFD) enforces the CCR, Title 24, Part 2.1, known as the California Building Code (CBC) and CCR, Title 24, Part 2.5, known as California Residential Code (CRC), Chapter 7A and section R337, respectively, which cover the requirements for material and construction methods for buildings subject to exterior wildfire exposure.

See Page 3 of 5 for SJFD WUI Map. Contact SJFD at (408) 535-7750 and ask for a plan check engineer to confirm if your property is in the SJFD WUI zone.

Source - CBC Chapter 7A and CRC 337: New Buildings Located in Any Fire Hazard Severity Zone.

New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency (SJFD) for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.

Wildland-Urban Interface Fire Area designated by San José Fire Department.

New buildings located in any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of CBC chapter 7A or CRC Section R337, as applies.

Application:

This policy applies to the following buildings:

- Detached Residential building.
- Detached Commercial buildings.
- Detached group U structure except those located at least 50 feet from an applicable building.
- Detached group U structure except those less than 120 square feet in floor area when located at least 30 ft. from an applicable building.
- Additions and alterations to buildings that were permitted and constructed on or after July 1, 2008.
- Additions and alterations to buildings that were permitted and constructed on or after 2005, only roof and attic vent sections will be required.
- Subject to above, when more than 50% of the total roof area is being replaced within a one-year period, the entire roof covering shall comply with the requirements of CBC 705A/ CRC R337.5.2.

Bureau of Fire Prevention

200 E. Santa Clara St. 2nd Floor, Tower San José, CA 95113-1905 tel (408) 535-7750 fax (408) 292-6067

Construction Details:

Buildings proposed to be built within the SJFD WUI shall comply with all WUI materials and construction methods per CBC Chapter 7A and CRC Section R337. The applicant shall, prior to construction, provide sufficient detail to demonstrate that the building proposed to be built complies. Building Permit Plans are also to be approved by the SJFD. The following details shall be provided.

Roofing Detail CBC 705A/CRC 337.5

- Provide all Class-A fire-resistive roofing (total assembly) information per this section including roof covering, underlayment materials, decking, valley flashing and gutter protection.

Attic Ventilation CBC 706A/CRC 337.6

- Provide details for attic, eave and foundation protection, to resist ember and flame intrusion, and ignition-resistant materials of construction.

Exterior Coverings CBC 707A/CRC 337.7

- Provide details for ignition-resistant exterior wall covering, open roof eaves, enclosed roof eaves and soffits, exterior porch ceilings, floor projections, underfloor protection, and underside of appendages.
- The underfloor area of elevated or overhanging buildings shall be enclosed

Exterior Windows and Doors CBC 708A/CRC R337.8

- Tempered exterior glazing and 1-3/8" minimum solid wood exterior door with ignition-resistant assemblies.

Decking Floors and Underfloor Protection CBC 709A/CRC R337.9

- Provide all details for ignition-resistant construction of the deck including but not limited to decking, surfaces, stair treads, risers and landings

Accessory Structures

- Arbors, Trellises, patio covers, carports, gazebos and similar structures of an accessory character except decks shall be constructed to conform to the ignition resistance requirements.

See examples of construction requirements on pages 4 & 5 of 8.

See CalFire WUI Products guide for available products at <https://lpcorp.com/resources/product-literature/fire-rated-wall-assemblies/california-wui-approved-products-list-english/> (cover shown on page 6 of 8).

Vegetation Management Compliance (Defeasible Space): CBC 701A.5, CRC R337.1.5, and CFC 4907

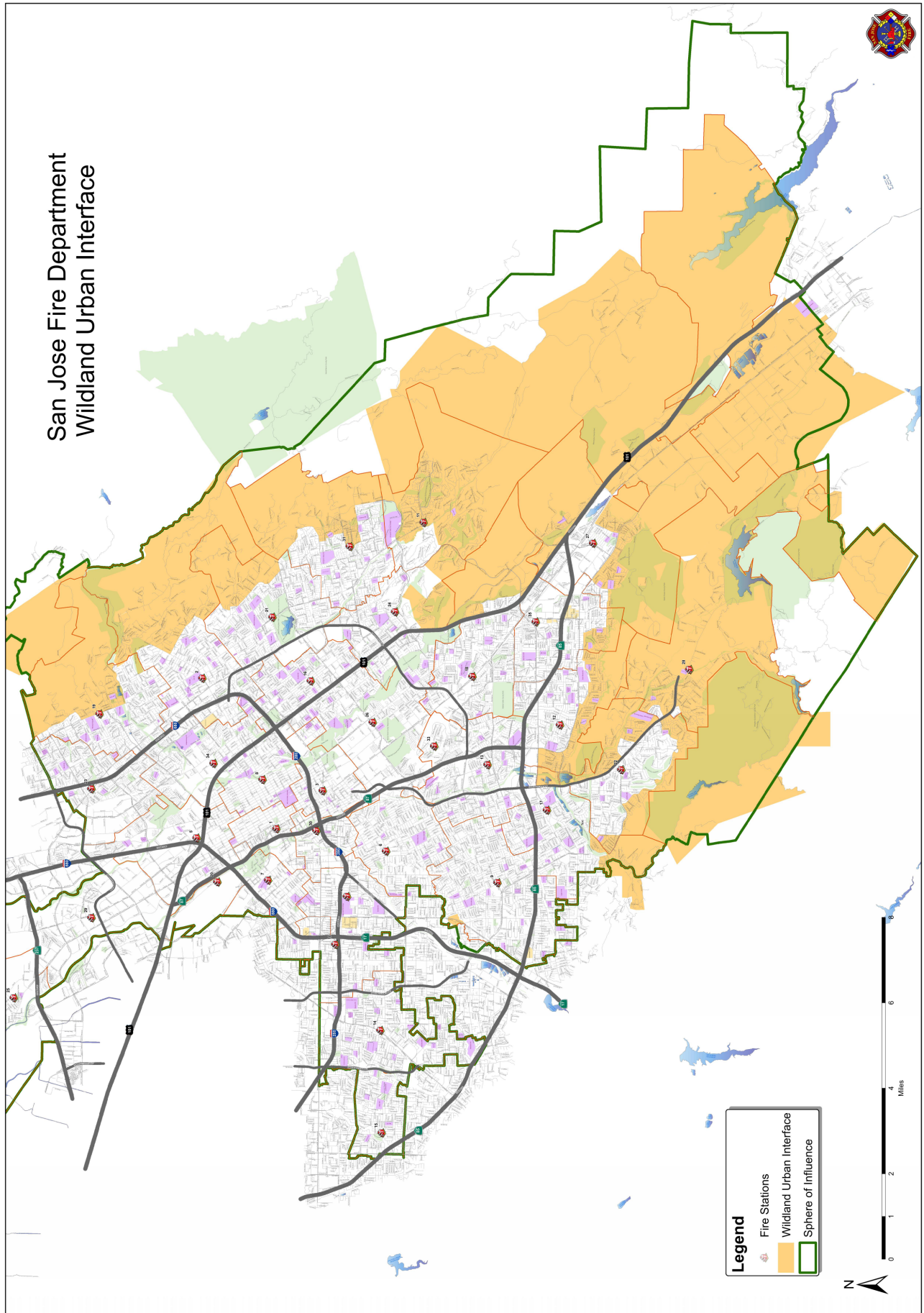
Provide documentation (on plot plan, or landscape plan) of compliance with PRC 4291. The State of California, Dept. of Forestry and Fire Protection Home-Owner's Fire Safety Inspection Template may be used (attached as pages 7 and 8 of 8)

Inspection:

The local Building Inspector shall provide field inspection to verify all construction meets CBC 701A.4, CRC R337.1.4, and CFC 4905.2 as applies. Construction methods intended to mitigate wildfire exposure shall comply with the wildfire protection building construction requirements contained in the California Building Standards Code, including the following:

- California Building Code, Chapter 7A,
- California Residential Code, Section R337,
- California Fire Code, Chapter 49
- California Referenced Standards Code, Chapter 12-7A.

Where required, all materials shall bear identification (certification) showing the fire performance rating thereof. That certification shall be issued by ICC-ES or a testing facility recognized by the State Fire Marshall having a service for inspection of materials at the factory. Some materials come with the certification on the packaging. These certificates must be maintained for inspection. If the certification is integral to the material (e.g.: Stamped on), a rough-in inspection is required for the field inspector to verify that proper materials are installed prior to it being covered and/or concealed.



WILDLAND URBAN INTERFACE FIRE ZONE (WUI) CONSTRUCTION REQUIREMENTS

CBC Ch. 7a / CRC Sec. R337



Wildland-Urban Interface Fire Area designated by San José Fire Department.

New buildings located in any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of CBC chapter 7A or CRC Section R337, as applies.

Application:

This policy applies to the following buildings: 1. Detached Residential building. 2. Detached Commercial buildings. 3. Detached group U structure except those located at least 50 feet from an applicable building. 4. Detached group U structure except those less than 120 square feet in floor area when located at least 30 ft. from an applicable building. 5. When more than 50% of the total roof area is being replaced within a one-year period, the entire roof covering shall comply with the requirements of CBC 705A / CRC R337.5.2. 6. Additions and alterations to buildings that were permitted and constructed on or after July 1, 2008. 7. Additions and alterations to buildings that were permitted and constructed on or after 2005, only roof and attic vent sections will be required.

Paints, coatings, stains or other surface treatments are not an approved method of fire protection. Fasteners in fire-retardant-treated wood shall be hot-dipped galvanized or stainless steel. More information regarding fire hazard zone construction is available on the internet at: <https://lpcorp.com/resources/product-literature/fire-rated-wall-assemblies/california-wui-approved-products-list-english/>

Attic vents shall be protected with a corrosion-resistant wire mesh having 1/16" - 1/8" openings. The walking surface of decks, porches, balconies, and stairs located within 10 feet of the building shall be ignition resistant construction.

Guardrails shall be ignition resistant construction or minimum 2x nominal framing.

The property shall be in compliance with vegetation management requirements prior to final approval.



Heavy timber posts and beams do not require protection.

	Roof	Floor
Beam	4x6	6x10
Post	6x8	8x8



Wood burning fire pits are not permitted in fire hazard zones.

IGNITION RESISTANT CONSTRUCTION

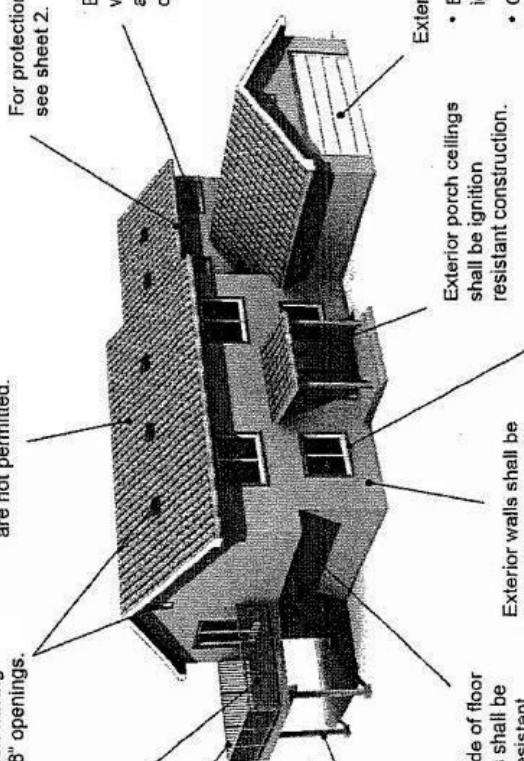
Where ignition resistant construction is required, the exterior covering materials or assemblies shall be protected by any one of the following:

- Noncombustible material (stucco, metal).
- Ignition resistant material complying with SFM Standard 12-7A-5 (30 minute ASTM E84 or UL 723 test).
- Fire-retardant-treated wood identified for exterior use that complies with the requirements of CBC sec. 2303.2.
- One layer of 5/8" Type X exterior gypsum sheathing applied behind the covering on the exterior side of the framing.
- The exterior portion of a 1-hour fire rated wall assembly designed for exterior fire exposure, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
- Other materials and assemblies complying with the applicable State Fire Marshal standards (SFM Standards 12-7A-1 through 12-7A-4)

For protection at eaves, see sheet 2.

Exterior windows, glazed doors, glazed openings within exterior doors (including garage doors), and structural glass veneer shall comply with one of the following:

- Multiple pane with a minimum of one tempered pane.
- Glass block units.
- Have a fire-resistance rating of not less than 20 min. when tested according to NFPA 257.
- Approved per SFM Standard 12-7A-2.



Exterior doors shall comply with one of the following:

- Exterior cladding shall be a noncombustible or ignition resistant material.
- Constructed of solid core wood (1-3/8" thick with 1-1/4" min. panels).
- Have a fire-resistance rating of not less than 20 min. when tested according to NFPA 252.
- Approved per SFM Standard 12-7A-1.

Exterior porch ceilings shall be ignition resistant construction.

Wall architectural trim, embellishments, fascias, and gutters do not require protection.

Exterior walls shall be ignition resistant construction or heavy timber exterior wall assembly.

The underside of floor projections shall be ignition resistant construction

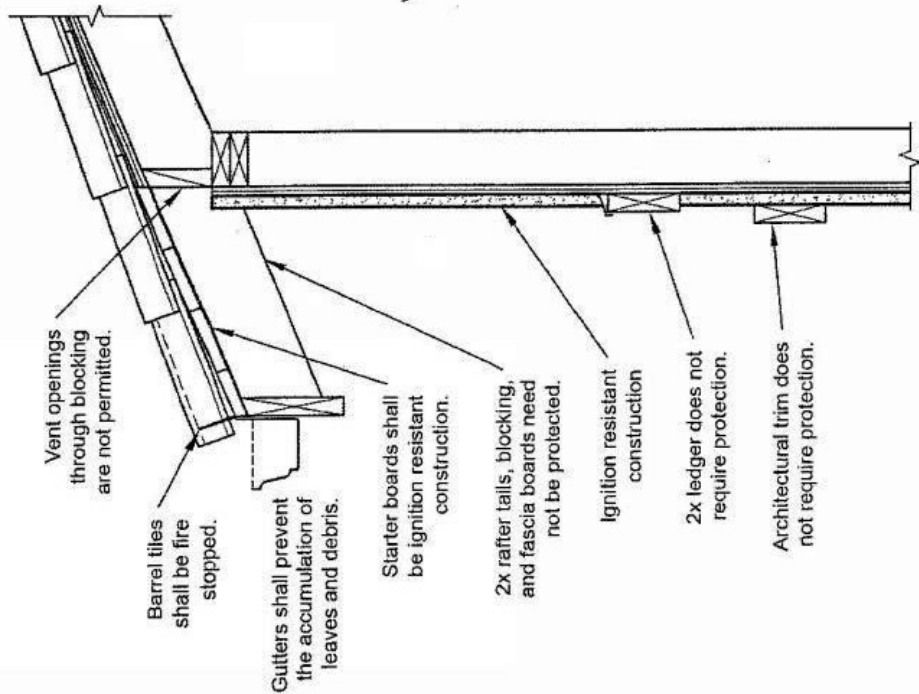
This sheet is for reference only and is not a substitute for accurate drawings prepared for each proposed construction project.

**WILDLAND URBAN INTERFACE FIRE ZONE (WUI)
CONSTRUCTION REQUIREMENTS**
CBC Ch. 7a / CRC Sec. R337

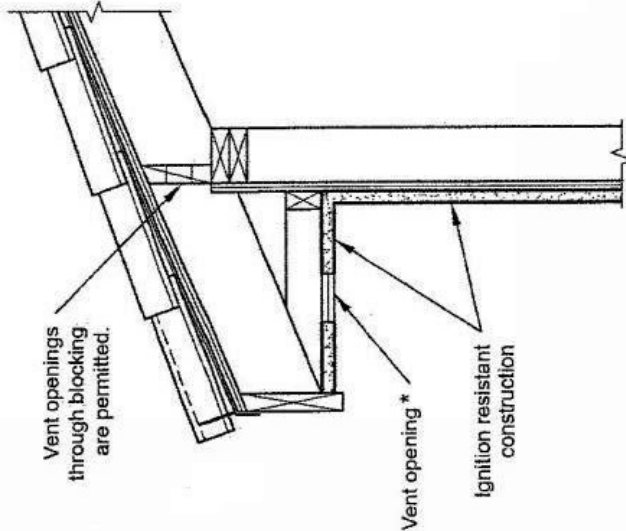


PROTECTION OF ROOF EAVES AND PROJECTIONS

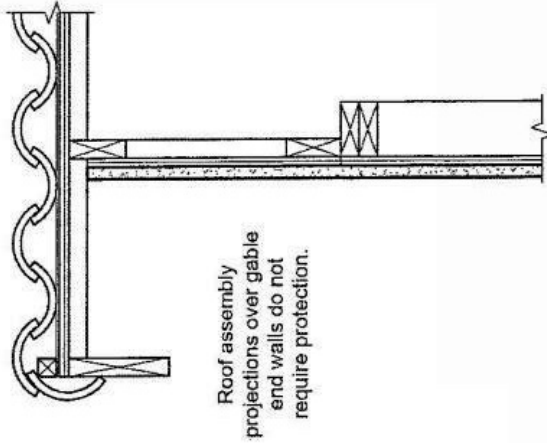
OPEN EAVE



ENCLOSED EAVE



GABLE END PROJECTION



- * Vent openings are permitted in the underside of enclosed eaves in accordance with either one of the following conditions:
- The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with CBC sec. 903.3.1.1.
 - The exterior wall covering and exposed underside of the eave are of noncombustible or ignition resistant materials and the vent is located more than 12 feet from the ground or walking surface of a deck, porch, patio or similar surface.
- Vent openings shall be covered with a noncombustible, corrosion resistant material having 1/8" - 1/16" openings.

**CALIFORNIA DEPARTMENT of FORESTRY
and FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL**



**WILDLAND URBAN
INTERFACE (WUI)
PRODUCTS**

Published by **CAL-FIRE**
FIRE ENGINEERING DIVISION
BUILDING MATERIALS LISTING PROGRAM

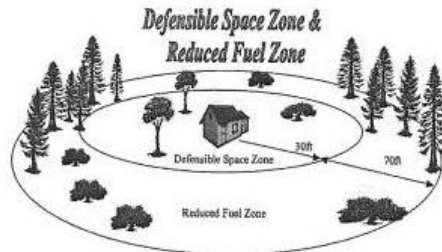
Revised July 11, 2011

<http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducts.pdf>

STATE OF CALIFORNIA
 RESOURCES AGENCY
 DEPARTMENT OF FORESTRY AND FIRE PROTECTION



HOME-OWNER'S
 FIRE SAFETY INSPECTION



DURING A WILDFIRE, COULD YOUR HOME “STAND ALONE” WITHOUT FIREFIGHTER PROTECTION?

- A fast-moving fire may reach your home before firefighters arrive.
- During a large fire, more homes will be threatened than there are resources to protect them.
- Every home needing firefighter protection takes firefighters and fire engines away from putting out the fire.

As a resident and/or owner of property near or adjacent to wildland areas, you are required by California’s Public Resources Code (PRC) Section 4291, to maintain a defensible space around your house and other structures. Included are additional requirements under the California Fire Code (CFC), and California Building Code (CBC). Completing these items increases the chances that your home will survive a wildfire, and will reduce the danger to firefighters, neighbors, and surrounding natural resources.

The checklist below will help you determine what you need to do to comply with the law and reduce your vulnerability to the threat of wildfire.

IT’S *YOUR* PROPERTY, *YOUR* RESPONSIBILITY

PLEASE! DO YOUR PART TO KEEP YOUR COMMUNITY FIRESAFE.

Yes No

DEAD or DYING VEGETATION *to be completely removed* unless otherwise specified:

- A. Needles, leaves, or other vegetation on roofs, gutters, decks, porches, stairways (#4) PRC 4291(a)(6)
- B. Limbs or trees adjacent to or overhanging buildings (#3) PRC 4291 (a)(5)
- C. Leaves, needles, and grass within 30 feet of all structures, including decks, stairways, etc. (#1) PRC 4291(a)(1)
- D. Trees, brush, branches and limbs 15 feet from the ground and 100 feet from all structures (#12) PRC 4291(a)(1)
- E. Logs or stumps embedded in the soil: remove OR isolate from structures and other vegetation (#13) PRC 4291(a)(1)
- F. Grass beyond 30 feet from structures: mow to max. 4 inches in height, may stay on the ground (#10) PRC 4291(a)(1)

LIVE VEGETATION to be thinned, removed or pruned:

- G. Mountain misery/bear clover within 30 feet of all structures: remove completely (#2) PRC 4291(a)(1)
- H. Mountain misery/bear clover between 30 and 100 feet of structures: prune overhanging trees to 15 feet (#11) PRC 4291(a)(1)
- I. Brush, shrubs, ground-covers, seedling/sapling trees: thin, prune, and space according to table on reverse (#17, 18, 19) PRC 4291(a)(1)
- J. Mature trees: prune at least 6 feet, more on slopes, or where there is underlying vegetation; space according to table on reverse (#9, 15, 16) PRC 4291(a)(1)

OTHER:

- K. Stove pipes, chimney outlets: remove limbs and trees within 10 feet (#5) PRC 4291(a)(4)
- L. Stove pipes, chimney outlets: cover with ½-inch mesh screen (#6) CFC 603.8, CFC 10, Sec. 8-10.04(b), CBC 2802.1
- M. Propane tanks: clear 10 feet around and 15 feet above (#7) CFC 3807.3
- N. Woodpiles: clear 10 feet around and 15 feet above (#8) PRC 4291(a)(1)
- O. Non-vegetative flammable material: remove or clear around and cover with fire resistant material (#14) PRC 4291(a)(1)

➤ **Uncorrected items may be cited and fined (up to several hundred dollars per violation).**

Defensible Space Zone

Special requirements within the first 30 feet surrounding any structure or to the property line, whichever is nearest:

1. Remove *all* dead or dying leaves, needles, grass.
2. Remove *all* bear clover/mountain misery.
3. Maintain any tree adjacent to or overhanging any building free of dead or dying wood.
4. Maintain the roof and gutters of all buildings free of leaves, needles, or other vegetation.
5. Remove all limbs within 10 feet of any chimney or stovepipe opening.
6. Cover all chimney or stovepipe openings with a metal screen having openings no larger than 1/2 inch in size.
7. Clear 10 feet around and 15 feet above propane tanks. Non-volatile vegetation or decorative enclosures are allowed if they do not hide the tank's location from firefighters, or impede firefighters' access to the valve assembly.
8. Clear 10 feet around woodpile(s); maintain free of needles, leaves, and other flammable debris. During fire season, store firewood as far as possible from structures, and protect woodpiles with fire resistant covering.
9. Break up the continuous forest canopy by spacing trees according to the table below.

Reduced Fuel Zone

Special requirements/provisions from 30 to 100 feet beyond any structure, or to the property line, whichever is nearest:

10. Dead/dying leaves, needles and *mowed* dry grass may remain on the ground to a depth of 3-4 inches.
11. Mountain misery/bear clover may remain, but overhanging and adjacent trees must be pruned up to 15 feet.

Clearance Requirements In Both Zones

Remove all DEAD /DYING vegetation or non-vegetative debris:

12. Remove all dead or dying brush, trees, limbs and branches within 15 feet of the ground. This includes dead material within dense plants such as juniper or rosemary.
13. Logs or stumps embedded in the soil must either be removed or isolated from other vegetation and structures.
14. Remove, or clear around and cover with fire-resistant covering all flammable non-vegetative material or household debris, so that wind-driven firebrands or embers cannot land on or in this material and start a fire.

Thin, prune and remove LIVE vegetation:

15. Prune trees (remove limbs), up at least 6 feet, (or 1/3 - 1/2 the tree height for small trees), more on slopes.
16. If retaining a "continuous forest canopy" where limbs of one tree touch those of another, prune trees to 15 feet (or 1/3 of tree height for trees under 30 feet, whichever is less).
17. Thin, remove, and space seedling/sapling trees according to the table below (use 'Other Plants' spacing). Prune remaining *select* trees up 1/3 - 1/2 their height.
18. Create vertical spacing between tops of short plants and any limbs above them, of 3 times the height of the lower plant.
19. Break up continuous masses of vegetation by separating trees, bushes, and clumps of ground-cover vegetation with cleared areas, according to the table below. For privacy, space plants in a checkerboard pattern rather than a solid row.
 - a. ***You may keep*** well-maintained and appropriately-watered lawns, ground cover plants, ornamental shrubbery, and trees that are well-spaced, well-pruned, free of all dead material, and which will not spread fire to structures or other vegetation.
 - b. ***You may keep*** ornamental trees or shrubs which have branches down to the ground, but you must remove *all* dead material within, beneath and surrounding them.

Minimum Horizontal Spacing Guidelines		
SLOPE	SHRUBS, GROUND-COVERS & OTHER ORNAMENTAL PLANTS Space required between clumps of ground-cover plants, bushes, shrubs, seedlings or sapling trees, etc.	TREES Space required between tree canopies
Flat or gentle slope (0% to 20%)	2 times the height of the plant	10 Feet
Moderate slope (20% to 40%)	4 times the height of the plant	20 Feet
Steep slope (Greater than 40%)	6 times the height of the plant	30 Feet

Vertical Spacing Guidelines
Minimum vertical space between top of lower plants and the bottom limbs of overhanging limbs:
"3 times the height of the lower plant"

For more information on Public Resources Code (PRC) 4291 and making your home fire safe, visit these websites: www.fire.ca.gov; www.firewise.org; www.firecenter.berkeley.edu/toolkit; or contact your local SJFD Fire Station.