



DEVELOPMENT SERVICES – BUILDING INSPECTION

INSPECTION GUIDELINES: WILDLAND URBAN INTERFACE

INSPECTION CODE: N/A

SCOPE: RESIDENTIAL & COMMERCIAL

APPLICABLE CODES: 2016 CBC, CRC, CPC, CMC, CEC, CALGreen, CEnC, and PAMC

The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.

RESIDENTIAL REQUIREMENTS

Per PAMC 15.04.300, a “wildland urban interface (WUI) fire area is a geographical area identified by the state as a ‘Fire Hazard Severity Zone’ in accordance with the Public Resources Code Sections 4201 through 4202 and Government Code Sections 51175 through 51189. In addition, within the limits of the City of Palo Alto, wildland-urban fire interface area shall include all areas west of Highway 280 and all other areas recommended as Very High Fire Hazard Severity Zone by the director of Cal Fire.”

The governing code for residential structures built within the WUI in the City of Palo Alto is the California Residential Code (CRC), Section R337 (which provides minimum code requirements), and the City of Palo Alto Municipal Code (PAMC).

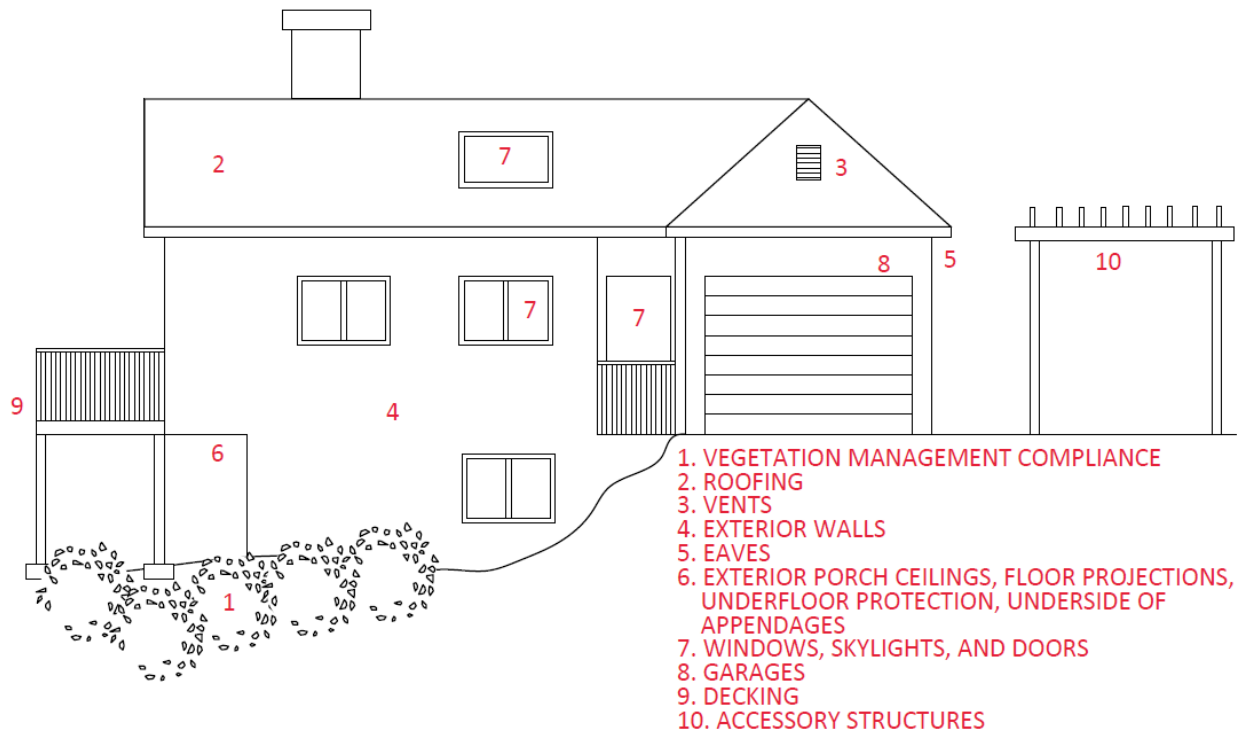


Figure CPA 073: Summary of WUI Residential Requirements

BUILDING INSPECTION**INSULATION**

Paper-faced insulation is not permitted in attics or ventilated spaces due to the potential of embers igniting the paper. Foil-backed or un-faced fiberglass batts and blankets are better suited to conditions of potential fire hazards. Use foil-backed insulation in areas where a vapor barrier is required.

1. VEGETATION MANAGEMENT

- ☐ Prior to final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code Section 4906, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be permitted to include any of the following (CRC R337.1.5):
 - Local, state, or federal fire authority or designee authorized to enforce vegetation management requirements
 - Enforcing agency
 - Third party inspection and certification authorized to enforce vegetation management requirements
 - Property owner certification authorized by the enforcing agency

2. ROOFING

- ☐ Roof covering for all new buildings shall be fire-retardant roofing Class A, tested in accordance with UL 790 or ASTM E108. (CRC R902.1, CRC R902.1.1, CRC R337.5)
- ☐ Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to resist the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 lb. mineral-surfaced nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking. (CRC R337.5.2)
- ☐ Re-roofing where more than 50% of the total roof area is replaced within a one-year period and any roof covering applied in an alteration, repair, or replacement, shall be a fire-retardant roof covering that is at least Class A. (CRC R902.1.1, CRC R337.5)
- ☐ Valley flashing shall not be less than 0.019" No. 26 gauge galvanized sheet corrosion-resistant metal over not less than one layer of minimum 72 lb. mineral-surfaced nonperforated cap sheet at least 36" wide running the full length of the valley. (CRC R337.5.3)
- ☐ Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter. (CRC R337.5.4)

3. VENTS

- ☐ Ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters and underfloor ventilation openings shall be fully covered with: metal wire mesh, vents, other materials, or other devices that meet one of the following (CRC R337.6.2):
 - Vents shall be listed to ASTM E2886
 - Vents shall comply with all of the following:
 - The dimensions of the openings therein shall be a minimum of 1/16" and shall not exceed 1/8"
 - The materials used shall be noncombustible
 - Exception:
 - Vents located under the roof covering, along the ridge of roofs, with the exposed surface of the vent covered by noncombustible wire mesh, may be of combustible materials.
 - The materials used shall be corrosion resistant.
- ☐ Vents on the underside of eaves and cornices are not allowed, unless (CRC R337.6.3):
 - Vents shall be listed to ASTM E2886
 - The enforcing agency shall be permitted to accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers
 - Vents complying with the requirements of Section R337.6.2 shall be permitted to be installed on the underside of eaves and cornices. Check with Fire Department that one of the two conditions are applicable.

4. EXTERIOR WALLS

- ☐ Exterior walls shall be constructed with one of the following materials (CRC R337.7.3):
 - Noncombustible material
 - Ignition-resistant material
 - Heavy timber exterior wall assembly
 - Log wall construction assembly
 - Wall assemblies that have been tested with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707
 - Wall assemblies that have been tested with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1
 - Exceptions:
 - One layer of 5/8" Type X drywall behind the exterior covering or cladding on the exterior side of the framing
 - 1-hour rated assembly

- ☐ Exterior wall coverings shall extend from the top of the foundation to the roof and terminate at 2" nominal wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure. (CRC R337.7.3.2)

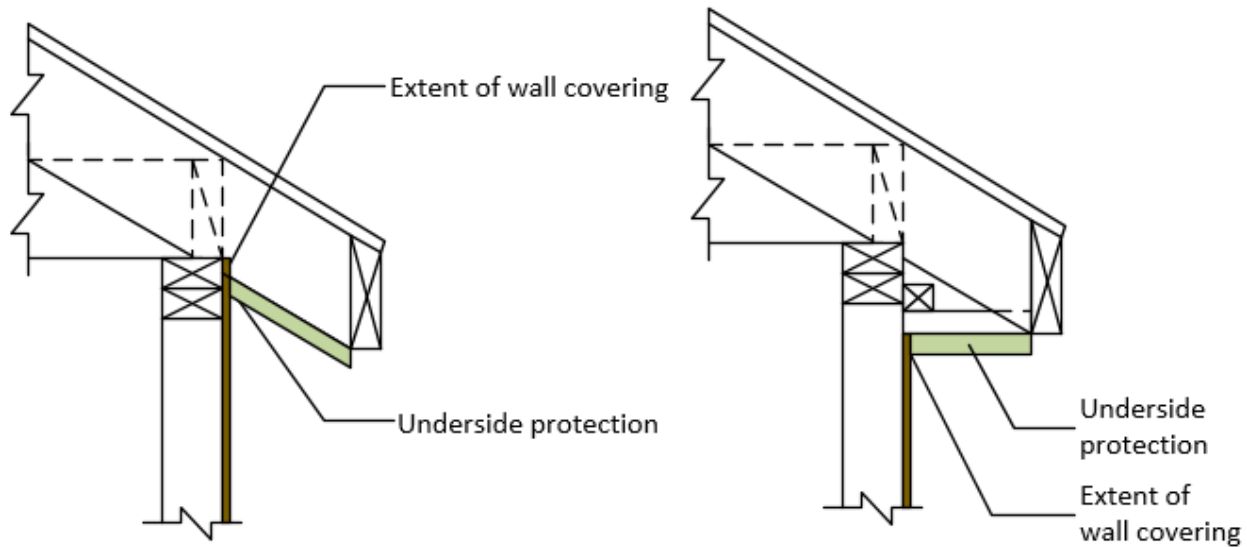


Figure CPA 074: Exterior wall covering and underside protection at eaves

5. EAVES

- ☐ The exposed roof deck on the underside of unclosed roof eaves and the exposed underside of enclosed roof eaves having either a boxed-in roof eave soffit with horizontal underside, or sloping rafter tails with an exterior covering applied to the underside of the rafter tails, shall consist of one of the following:
 - Noncombustible material
 - Ignition-resistant material
 - One layer of 5/8" Type X drywall on the underside exterior of the roof deck
 - 1-hour rated assembly
 - Boxed-in eaves with a horizontal assembly that has been tested with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2957
 - Boxed-in eaves with a horizontal assembly that has been tested with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-3
 - Exceptions:
 - Solid wood rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2"
 - Solid wood blocking installed between rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2"
 - Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails
 - Fascia and other architectural trim boards

6. EXTERIOR PORCH CEILINGS/FLOOR PROJECTIONS/UNDERFLOOR PROJECTIONS/UNDERSIDE OF APPENDAGES

- ☐ The exposed underside of exterior porch ceilings, floor projections, underfloor, and underside of appendages shall be protected by one of the following (CRC R337.7.6, CRC R337.7.7, CRC R337.7.8, CRC R337.7.9):
 - Noncombustible material
 - Ignition-resistant material
 - One layer of 5/8" Type X drywall on the underside exterior of the roof deck
 - 1-hour rated assembly
 - Horizontal assemblies that meet the test procedures set forth in ASTM E2957
 - Horizontal assemblies that meet the test procedures set forth in SFM Standard 12-7A-3

7. EXTERIOR WINDOWS, SKYLIGHTS, AND DOORS

- ☐ Exterior windows, skylights and exterior glazed door assemblies shall comply with one of the following requirements (CRC R337.8.2.1):
 - Be constructed of multipane glazing with a minimum of one tempered pane meeting the requirements of Section R308 Safety Glazing
 - Be constructed of glass block units
 - Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257
 - Be tested to meet the performance requirements of SFM Standard 12-7A-2
- ☐ Exterior doors shall comply with one of the following (CRC R337.8.3):
 - Cladding shall be of noncombustible or ignition resistant material
 - Constructed of solid core wood that complies with the following requirements:
 - Stiles and rails shall not be less than 1-3/8" thick
 - Panels shall not be less than 1-1/4" thick, except for the exterior perimeter of the panel that shall be permitted to taper to a tongue not less than 3/8" thick.
 - The exterior door assembly shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252
 - The exterior surface or cladding shall be tested to meet the performance requirements of Section R337.7.3.1 when tested in accordance with ASTM E2707
 - The exterior surface or cladding shall be tested to meet the performance requirements of SFM Standard 12-7A-1

8. GARAGES

- ☐ Exterior garage doors shall be provided with weather stripping to resist the intrusion of embers from entering through gaps between doors and door openings when visible gaps exceed 1/8". Weather stripping or seals shall be installed on the bottom, sides, and tops of doors to reduce gaps between doors and door openings to 1/8" or less. (CRC R337.8.4)

9. DECKING

- ☐ The walking surface material of decks, porches, balconies and stairs shall comply with the requirements below when any portion of such surface is within 10' of the building. (CRC R337.9.2)
- ☐ The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials (CRC R337.9.3):
 - Material that complies with the performance requirements of Section R337.9.4 when tested in accordance with both ASTM E2632 and ASTM E2726
 - Ignition-resistant material that complies with the performance requirements of Section R337.4.3 when tested in accordance with ASTM E84 or UL 723
 - Material that complies with the performance requirements of both SFM Standard 12-7A-4 and SFM Standard 12-7A-5
 - Exterior fire retardant treated wood
 - Noncombustible material
 - Any material that complies with the performance requirements of SFM Standard 12-7A-4A when attached exterior wall covering is also composed of noncombustible or ignition-resistant material.
 - Exception: Wall material may be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread rating
 - Any material that complies with the performance requirements of Section R337.9.5 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.
 - Exception: Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread index.

10. ACCESSORY STRUCTURES

- ☐ No requirements shall apply to accessory buildings or miscellaneous structures when located at least 50' from an applicable building. Applicable accessory buildings and attached miscellaneous structures, or detached miscellaneous structures that are installed at a distance of less than 3' from an applicable building, shall comply with the following requirements. (CRC R337.10.3)
- ☐ Applicable accessory buildings that are less than 120 square feet in floor area and are located more than 30' but less than 50' from an applicable building shall be constructed of noncombustible materials or of ignition resistant materials. (CRC R337.10.3.1)
- ☐ Applicable miscellaneous structures that are attached to, or installed at a distance of less than 3' from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials. (CRC R337.10.3.2)
- ☐ When required by the City of Palo Alto, applicable detached miscellaneous structures that are installed at a distance of more than 3' but less than 50' from an applicable building shall be constructed of noncombustible materials or of ignition resistant. (CRC R337.10.3.3)