WILDLAND URBAN INTERFACE & STUCCO

2025



WUI (Wildland-Urban Interface) is where human development and undeveloped land meet. Structures in the WUI zone face a higher potential to succumb to wildfires. The WUI zone is more widespread than most people know; almost 10% of the United States falls in a WUI zone, which grows yearly. According to the U.S. Fire Academy, 38% of all U.S. housing is in a WUI zone. While almost all states are impacted by WUI, the top five are California, Texas, Florida, North Carolina, and Pennsylvania.

PROTECTION: Cement plaster (stucco) is noncombustible according to Building Code Section R202 (passing ASTM E136) and meets California Building Code Chapter 707A (Exterior Covering). Cement plaster (stucco) is a preferred exterior siding material by CALFIRE and Building Departments in WUI zones (see picture from CALFIRE). At 7/8 inch thickness, cement plaster provides a one-hour fire-rated exterior cladding on framed walls spaced 16" on-center

(2021 IBC Table 721.1(2) Item 15-1.3 & 15-1.4) and ceilings applied at 5/8 of an inch thickness for joists spaced 16"on-center (2021 IBC Table 721.1(3) Item 13-1.2). The OSFM (Office of State Fire Marshall) also publishes a WUI-approved products/systems manual. Category 8140 covers exterior sidings.

Fire protection requires attention to several elements, including windows, roofs, and vegetation control around the house. Simply putting noncombustible stucco on the structure may not be adequate protection against a wildfire. A continuous, seamless, noncombustible



Walls & Siding

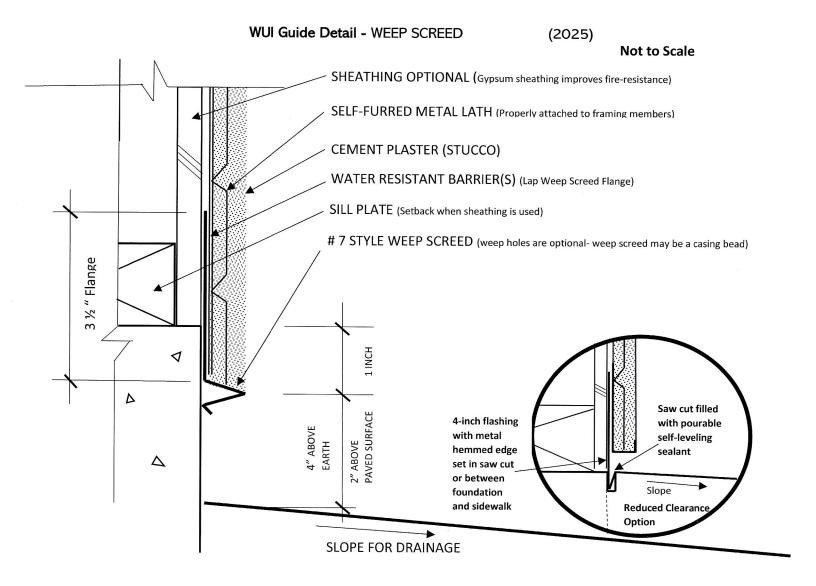
PHOTO COURTESY OF CALFIRE

cladding should extend from the foundation to an approved roof edge. Cement plaster (stucco) can provide significant wall and ceiling protection with proper detailing at the foundation, eaves, parapets, and areas such as exposed framing on the underside of balconies or decks.

WUI DETAILS: The Stucco Manufacturers Association (SMA) provides this brochure as a WUI guide for stucco details to protect framed structures from exposure to wildfire events. Foam plastic may be used under the cement plaster with an approved UL, ASTM, or NFPA fire testing report or as the building department allows. One-coat stucco is noncombustible and offers fire protection when installed per the ESR (Evaluation Report) and manufacturer's recommendations. The SMA recommends applying the one-coat stucco basecoat at a 1/2-inch thickness for enhanced performance. The finish coat for one and three-coat stucco may be cement-based or acrylic-based. Coated foam decorative shapes such as quoins, cornices, or window surrounds can be adhesively applied over the cement basecoat of stucco without compromising fire protection.

The SMA was incorporated in 1957 to provide education for the lath and plaster industry. The SMA provides this Brochure and WUI details as a guide to improve fire resistance on framed homes. The local Building Department always has the final word on what is code approved. The SMA works closely with Building Departments to help protect life and property from the dangers of fire in WUI zones. The SMA cannot provide a warranty, express or implied for the use of these WUI details. www.stuccomfgassoc.com (714) 473-9579

WUI GUIDE DETAIL



NOTES: A WEEP SCREED (Minimum galvanized 26-gauge sheet steel) shall be set to protect framing and sheathing. Set nose 1 inch below the foundation plate line. *Reduced Clearance Option* is for walkways with clearance restrictions, must have local building department approval as an alternate method per Code Section 104.11).

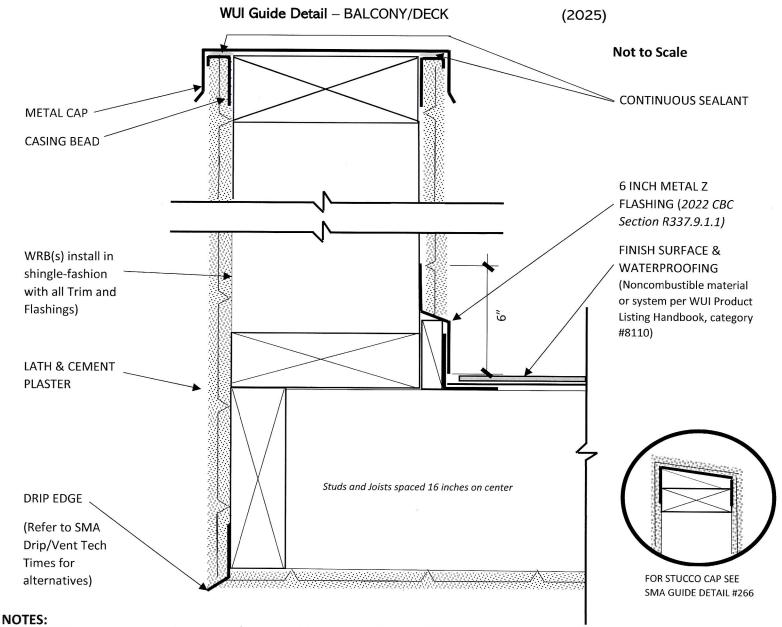
- 7/8-inch cement plaster (one-hour fire-rated) may be replaced with a one-coat stucco installed per current Evaluation Report (ESR). The SMA recommends the basecoat one-coat base coat be ½ inch thick for best results.
- Secure weep screed to framing so as not to move during application of plaster.
- Fluid-Applied Membrane WRB may be used as a base layer WRB (Adhere to manufacturers recommendations)
- Metal flashing (Alternate) may be placed before walkway pour or saw cut into existing concrete. The gap between concrete and weep casing bead should be a nominal 1/2 inch, allowing water to weep out.

The Stucco Manufacturers Association (SMA) is a not-for-profit association dedicated to the education and promotion of cement plaster (stucco). This guide detail is not intended for a particular project or meant to limit alternate options or material selections. The SMA cannot offer a warranty, express or implied for the use of this guide detail. Proper installation is critical as is training of installers: SMA Certified Contractors must pass training and exams on lath and plastering to become SMA Certified.

STUCCO MANUFACTURERS ASSOCIATION

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WUI GUIDE DETAIL



WUI Zone structures with balconies/decks must be protected from wildfire. Cement plaster provides required protection. A metal balcony cap (shown) is protection against water intrusion. A stucco cap is possible (See inset detail) in Climate Zones B and C when installation is per SMA Guide Detail #266 (Stucco Parapet).

- Metal cap should be installed over continuous beads of sealant between stucco casing beads and metal cap.
- Water Resistant Barriers (WRB) should be under casing bead flange and over the "Z" Bar flashing flanges.
- Lath is per building department corner bead (aid) may be used in lieu of Drip edge as allowed by designer.
- SMA recommends soffit/ceiling use rib lath and cement plaster (no sheathing or WRB) or a Direct Applied System.
- Venting may be required in some jurisdictions: Where provided, use vents compliant to ASTM E 2886

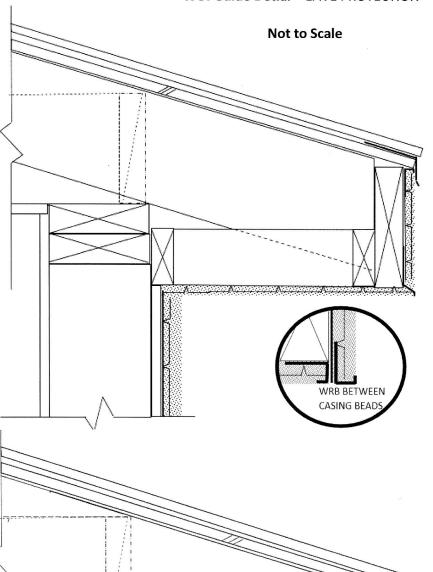
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WUI Guide Detial - EAVE PROTECTION

(2025)



NOTES:

Cement plaster (stucco) is noncombustible and at 5/8-inch-thick is one-hour rated meeting CBC code R337.7.10 and ASTM E 2957 (Fire test for eave/soffits). A Direct Applied System (DAS) is proprietary sheathing with skim coat base and mesh also compliant with WUI requirements. Cement plaster is vapor permeable and venting eaves is not code required. Where soffit vents are desired and provided, they should conform to ASTM E2886 (Standard Test to Evaluate Vents to Resist Entry of Embers).

Stucco soffits/ceilings perform best without a sheathing or water-resistant barrier (WRB) to ensure proper lath attachment, keying of cement plaster to lath and maximum vapor permeability.

One-Coat Stucco may be used in lieu of 3-coat stucco with a valid ICC or IAPMO Evaluation Report (SMA recommends a ½ inch basecoat).

Drip edge for cement stucco is optional with choices. Refer to SMA Tech Times on Drip Edge options to learn more.

Roof should be noncombustible or comply with the Office of State Fire Marshall (OFSM) listed WUI Products Handbook category # 8180

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the Stucco. Due to variables, the SMA cannot
offer a warranty, express or implied for the use of WUI
guide details. SMA Certified contractors attend classes
and pass exams on proper installation of stucco.

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