CITY of CHICO

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Residential Fireblocking Requirements When Using Insulation Materials

Fireblocking is designed to slow or block fire and smoke from moving through concealed vertical and horizontal **spaces**—the cavities inside wall framing, floor assemblies, or ceiling drops. The intent is not about stopping a fire permanently, it is about providing time for people to escape and slowing down the flashover inside concealed framing.
Common areas where special attention is needed for *Fireblocking* and required per **CRC R302.11 include**:

- Top and bottom plates where pipes, wires, or ducts penetrate
- Intersections between vertical and horizontal spaces—like drop ceilings, soffits, stair stringers, furred walls, and around tubs
- Balloon-framed walls or concealed chases that extend across and through floors.
- Behind showers and tubs on exterior walls

Note: Behind tubs and showers on exterior walls, fireblocking is still required—even if you've sealed your top and bottom plates. Why? Because this cavity often acts as a hidden draft channel.

In modern construction, this area is usually insulated and covered with a vapor barrier due to energy code requirements. But if it's not insulated, it creates a concealed void where fire can easily travel through.

Plumbing chases in this space often involve notched plates or open bays, which can compromise the fireblocking installed above or below. The CRC specifically calls out the space behind tubs and showers as

requiring fireblocking. The requirement is to stop fire and smoke from riding that vertical cavity into an attic or adjacent horizontal space.

General Rule of Thumb: *If a vertical space leads to a horizontal one—or vice versa—fireblock it. If fire or smoke could use that space to move between levels or rooms, the code expects you to block it off.*

- **Orange foam from big box stores** is not tested to meet **ASTM E136** and for *fireblocking* covered under the Residential code, the orange foam is accepted for non-rated penetrations in top or bottom plates, soffits, or concealed framing.
- **Rockwool (mineral wool)** is approved because it's non-combustible, dense, and heat-resistant. It won't melt or sag during a fire, and it blocks heat and smoke effectively.
- **Fiberglass insulation** is approved for residential fire blocking when installed floor to ceiling within an exterior wall finished on both sides.

Note: Fiberglass material is not a substitute for Rockwool or other approved *fireblocking* when installed horizontally, at rated penetrations, or in the conditions identified below.

RESIDENTIAL FIREBLOCKING