



Home Hardening

“Research around home destruction vs. home survival in wildfires point to embers and small flames, not the wall of fire as the main way that the majority of homes ignite in wildfires. Embers are burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind and can cause spot fires and ignite homes, debris and other objects.” National Fire Protection Association (NFPA)

There are construction material choices and actions homeowners can take to help their homes better withstand ember attacks and minimize the likelihood of flames or surface fire touching the home or any attachments. Choosing fire resistant building materials and construction methods is referred to as Home Hardening.

Things to consider when building or retrofitting a home for wildfire resiliency

- **Roofing material** – Class A is the most fire-resistant and should be the choice of anyone living in wildfire-prone areas. Common Class A roof coverings include asphalt fiberglass composition shingles, metal, concrete or clay tiles.
- **Roof openings** – Plug openings in roof coverings, such as the open ends of metal roofs, with non-combustible materials.
- **Skylights** – Replace plastic skylights with ones constructed of double pane glass. One of the panes should be tempered glass.
- **Chimneys** - Install an approved spark arrester.
- **Windows** – Replace single-pane, non-tempered glass windows with multiplepane, tempered glass.
- **Soffits and gable vents** - Metal is the best material. Cover attic, eave and foundation vents with 1/8" metal wire mesh or install new vent types designed to prevent ember entry. If wildfire is threatening, and time allows, consider covering vent opens with pre-cut plywood wrapped with several layers of aluminum foil that is stapled down to the wood.
- **Rain Gutters** – Gutters should be free of plant debris, like pine needles. Metal covers to reduce maintenance might help, but need to be cleared of debris, as well.
- **Decking material** – Replace deck boards that are less than one inch thick or that are in poor condition with thicker,



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good condition boards. Use metal flashing between the deck and the house. Use 1/8" metal wire mesh to enclose area under deck. If deck boards have a wider than 1/8" gap use the same wire mesh under deck boards.

- **Siding material** – Fill gaps in siding and trim with a good quality caulk and replace poor condition building materials. If building new or residing consider using whole log, fiber cement board, stucco, metal, brick or stone siding.
- **Foundation material** – Make sure 18" from the ground is fire resistant material like stone, stucco, brick or concrete, or ICF block.
- **Eaves** - Cover open eaves with sheathing, such as plywood or fiber-cement board. Use tongue and groove joints or other intricate joint types and do not use butt joints.
- **Flowerbeds** - Replace wood mulch with noncombustible types of mulch, like rocks. Remove plant debris, including dried grass and flowers, dead leaves and dead branches from flowerbeds next to the house, other buildings, propane tanks and next to wooden fences. Replace ornamental needle bearing shrubs with low-growing deciduous shrubs or flowers that are native and non-flammable.
- **Fences** - Metal is best. If you have a wooden fence make sure it is in good condition and create a noncombustible fence section or grate next to the house for at least 5 feet.

Helpful website: <https://www.readyforwildfire.org/prepare-for-wildfire/get-ready/hardening-your-home/>

