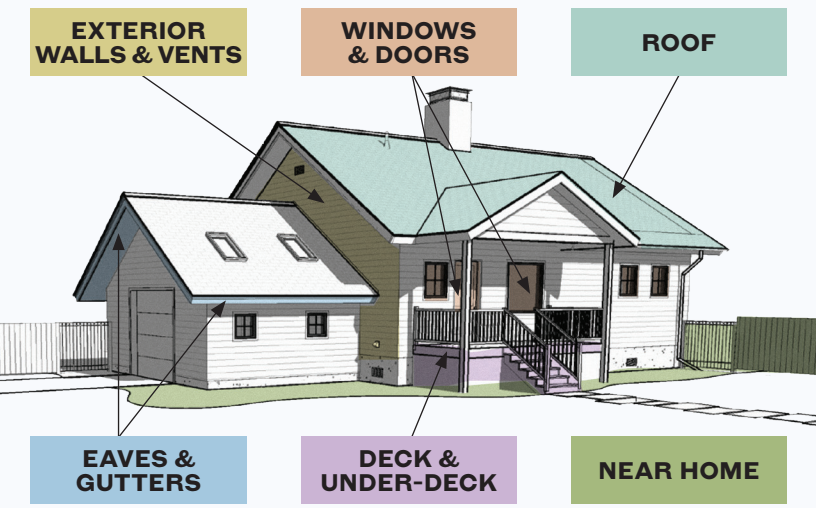
WILDFIRE RETROFITTING GUIDE

Reduce Your Home's Vulnerabilities



Research has identified the most common features that put homes at risk of ignition during a wildfire. Retrofitting strategies can reduce these risks and potentially save many homes from burning.

The cost of retrofitting for wildfire resistance varies by home. Not all homes need extensive upgrades.

This brochure provides an overview of home hardening recommendations in these areas:

- Exterior Walls (Siding and Vents)
- Roofs (Including Roof Vents)
- Eaves and Gutters
- Decks (Including Under-Deck Area)
- Windows and Doors
- Near-Home Landscaping (Including Fencing)

FIRE SAFE MARIN

MARIN WILDFIRE

A well-maintained Class A fire-rated roof is required to protect homes.

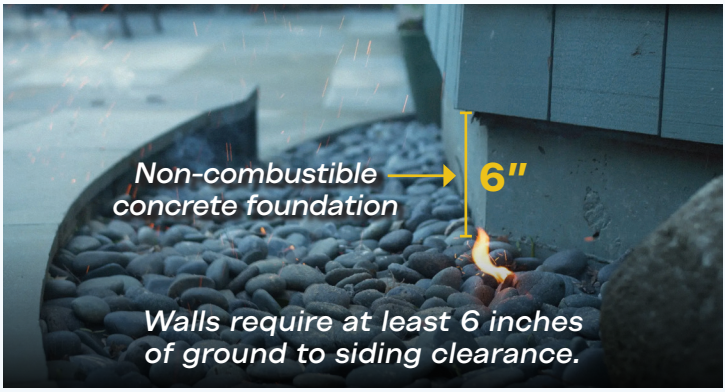
Installing **metal flashing** will help protect combustible siding at roof-to-wall intersections

Replace domed plastic skylights with flat, **tempered glass**.

Marin Wildfire is evaluating homes throughout the county to identify wildfire hazards and risks. Homeowners can view their Wildfire Risk Report to prioritize work to reduce risk.

Go to marinwildfire.org/dspace to see a detailed list of issues that need attention on and around your home as well as resources that can help you get the work done.

Ember accumulation at the base of combustible siding is a major vulnerability to your home.



When space between homes is less than 30 feet, the potential for radiant heat exposure may necessitate a retrofit of exterior walls.

Stucco and fiber cement siding are attractive options to increase wildfire resistance.

Fire resistant vents can protect your home.

Upgrading **foundation, eave and gable vents** can stop embers from entering a home and protect against heat and flames.

Alternatively, covering existing vents with 1/8″ or 1/16″ wire mesh may be an affordable DIY option to protect against embers.

EAVES AND SOFFITS & NON-COMBUSTIBLE GUTTERS

During a wildfire, open eaves have the potential to trap heat increasing the chance of ignition.

Enclosing eaves with non-combustible materials will increase a home's resistance to ignition. Make sure you use perforated or vented non-combustible materials to ensure adequate air circulation.

Installing metal gutter guards reduces the accumulation of fine debris that can easily ignite from embers.

Avoid plastic gutters and gutter guards which are combustible.

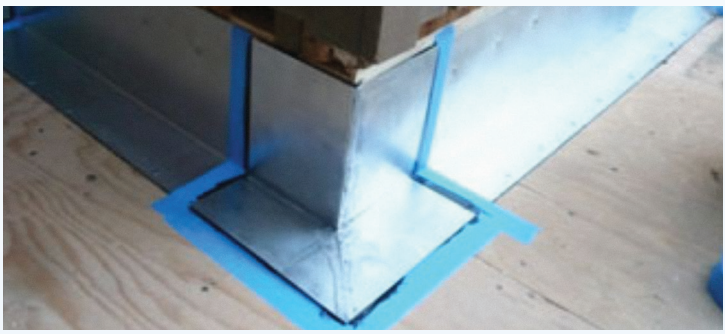
Installing a drip edge reduces the potential of fire spreading to the roof.

Regular maintenance is required to keep gutters free of combustible debris.

Decks are often made from combustible materials which are vulnerable to embers and heat.

Combustible furniture, leaf litter and under the deck storage of combustible materials will increase the chance of ignition.

There are modifications that can be made to your existing wood deck to improve your home's fire resistance.



Deck to wall: Installing metal flashing or non-combustible material at the deck-to-wall, or stair-to-wall intersections can reduce the chance of ignition from embers.

Under decks: Removing combustible materials from beneath decks reduces the hazard. Installing 1/16" metal screening will minimize ember entry in this area and chance of ignition from below.

Consider gravel mulch below decks to reduce the chance of ignition.

Any opening into your home, including windows and doors, can be an entryway for embers.

It's crucial to ensure all windows and doors are tightly sealed. Window vulnerability to heat varies based on size, glass type, and framing material.

Metal and metal-clad wood window frames are more resistant to heat exposure than non-clad wood-framed windows. **Tempered, dual pane glass** has many benefits to your home, with additional fire protection being among them.

Seal gaps on all exterior doors with fire resistant weather stripping to minimize ember intrusion.

The conditions surrounding a home are critical in determining its vulnerability to wildfire.

When addressing your home's wildfire readiness, residents are advised to take a "house out" approach. The area, known as **Zone Zero**, begins at your home's exterior and extends outward 5 feet.

Remove all combustibles, creating a 5 foot buffer around the home. Zone 0 = Zero combustibles. This includes vegetation, outdoor furniture, firewood, and other combustibles.

Attached fences and gates: Installing metal fencing (including gates or hardware) or other non-combustible materials within the first 5–10 feet of your home, reduces the chance of flames directly hitting the exterior of your home.

KEY TAKE AWAYS

Retrofitting is a cost-effective strategy to boost the wildfire resilience of a home.

Key strategies to reduce vulnerabilities to homes can be done affordably over time.

Essential — Address these areas first:

- Remove combustibles in Zone 0.
- Install flame and ember resistant vents or mesh covering.
- Create vertical spacing of at least 6 inches between combustible siding and the ground.
- Install metal gutters and gutter guards.

Advanced — Address if exposure warrants:

- Enclose eaves for added protection from radiant heat and flames.
- Harden existing wood decks with metal flashing and screens.

Comprehensive — Address if exposure warrants and budget allows:

- Replace exterior walls with non-combustible siding.
- Install double pane, tempered glass windows and skylights.

The findings outlined in this brochure are based on research conducted by Headwaters Economics.