

Make a non-combustible zone the ‘foundation’ of your firewise landscaping

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Do you have foundation plantings around your house? Many of our homes do – either we planted vegetation close to the house’s foundation or it was there when we bought the home. This vegetation is a legacy of the concept of ‘foundation planting’ promoted by landscapers and landscape architects as a way to frame a house and anchor it to the site. A quick review of landscaping websites will reveal that planting trees, shrubs, vines, grasses, and ground covers around a house is still promoted to create a transition between the built environment and the rest of the garden.

Unfortunately, in a fire prone region like ours, this strategy can increase the risk of your home igniting in a wildfire. Up to 90% of homes that burn in wildfires are ignited by embers, according to the Insurance Institute for Building and Home Safety (<https://ibhs.org/risk-research/wildfire/>). During a wildfire, embers rain down on a house and start small fires in vegetation. If that vegetation is in contact with the combustible siding of your house, then the small fire started in foundation shrubs can ignite the siding and eventually engulf the house. For a video of this effect in action, see the IBHS website- (<https://ibhs.org/ibhs-news-releases/embers-cause-up-to-90-of-home-business-ignitions-during-wildfire-events/>).

In order to remove this risk, IBHS and other educational organizations are advocating instead for the installation of a 5-foot non-combustible zone around the home and all attached structures including wooden decks.

Current law

Current defensible space law (<https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/>) requires maintaining 100 feet of defensible space around a home or the property line, whichever comes first. El Dorado county has passed a new vegetation management ordinance (<https://www.edcgov.us/Government/CAO/VegetationManagement>) that helps it to enforce existing defensible space law.

Current interpretation of the defensible space law encourages homeowners to maintain a ‘lean, clean and green’ landscape between 0 and 30 feet from the home and a ‘reduced fuel landscape’ between 30 and 100 feet from the home. However, this interpretation doesn’t incorporate new understandings about the critical role that the zone closest to the house plays in ignition during fires.

How to install a 0 to 5 foot non-combustible zone

To reduce the chance that ignition will occur near your home and flames will reach the building, install a non-combustible zone starting at the main structure and extending out five feet. This zone should not have any combustible material, such as plants, debris, firewood or other stored items.

Instead, consider installing hardscaping in this zone. This can be achieved by installing hard surfaces such as stone or concrete walkways, or use of noncombustible mulch products (e.g., rock mulch).



Figure 1. Vegetation has been separated from the house and its combustible siding by installation of an asphalt walkway. (not sure who took this picture)



Figure 2. A stone pathway and rock mulch has been installed to create a non-combustible zone (Photo by El Dorado County MGs)



Figure 3. Rock mulch has been extended around the base of the house. Stone facing at the base of the house reduces the risk of having combustible wood siding.

If vegetation must be kept in this zone, it should consist primarily of irrigated lawn and low-growing herbaceous (non-woody) plants. Shrubs and trees, particularly conifers, are not recommended for use in this zone.

Risky locations

Plants adjacent to combustible siding and foundation vents, as well as plants under or next to windows and soffit vents or interior corners, present the greatest hazard. Plants ignited in these locations can

ignite the home by allowing flame to contact it, throwing embers into vents or through radiant heat. Do not plant in these locations.

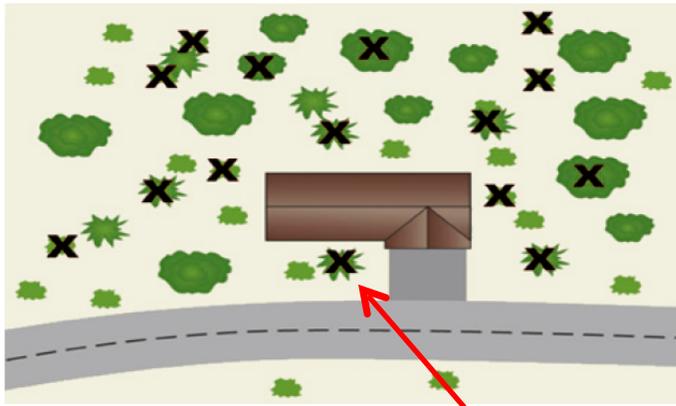


Figure 4. The riskiest locations for planting. The inside corner of the house is where embers 'eddy out' and collect during high wind events. (Photo UCANR Home Landscaping for Fire publication <https://anrcatalog.ucanr.edu/pdf/8228.pdf>)

Risky plants

Any plant can be a risk, but some plants are riskier than others. Woody shrubs should be removed, especially conifers such as ornamental junipers. Fire fighters call these shrubs 'little green gas cans'! Large trees on the other hand, are more difficult to ignite, especially if their limbs have been trimmed back to at least 10 feet from the home.



Figure 5. A cigarette thrown out the window into a 'foundation planting' of ornamental junipers burned this apartment in Reno (Photo courtesy of the University of Nevada Cooperative Extension Living with Fire program)

Hopefully with a few strategic changes in your near home zone, you can make fire safety the 'foundation' of your landscaping.