

DESIGN WITH FIRE IN MIND

Resilient homes built with Firewise principles can be beautiful, affordable, environmentally friendly – and life-saving.

There are two important steps TVW Owners can take to make your home safer:

Step 1: Consider Fire When Building Homes

Step 2: Plan a Firewise Landscape

Consider Fire When Building Homes

Especially in our area, embers can travel a mile or two before landing. In fact, according for NFPA, all the research around home destruction and home survival in wildfires points to embers and small flames as the main way that the majority of homes ignite in wildfires. To help your home resist ignition you should:

- Spec non-flammable roof and ignition-resistant construction elements including siding, decking, and windows. Please view this site when deciding construction materials: <https://csfs.colostate.edu/wildfire-mitigation/construction-design-materials/>
 - Use Class A or B roofing materials such as asphalt shingles, slate or clay tile, or metal roofing.
 - Fire-resistive or noncombustible construction materials are essential for siding and walls. Use a minimum of Class III flame/spread-rated siding material; stone, brick and stucco are best.
 - Limit the length of roof eaves so that they do not extend beyond exterior walls. If the eaves are longer, enclose them with fire-resistive materials.
 - Foundations may come in contact with a spreading wildfire before other areas of the structure. Enclose foundations with concrete block, cement walls or other fire-resistive materials.
 - Minimize the size and number of windows on the downhill side of the house or the side most likely to be exposed to wildfire. Both size and materials used are crucial in windows and sliding-glass doors. **Multi-paned glass** or tempered glass is recommended.
 - Cover exterior attic, soffit and under-floor vents with metal wire mesh (openings no larger than one-eighth of an inch) to prevent sparks from entering structures through vents. Install eave and soffit vents closer to the roof line than to the walls.
 - Do not locate decks at the top of a hill; fires generally spread uphill. Enclose the undersides of balconies and decks with fire-resistive materials so that burning embers cannot accumulate.
 - Cover chimneys and stove pipes with a nonflammable screen (mesh openings no larger than one-half inch).
- Construct your structure a minimum of 30 feet back from ridges or cliffs; increase the distance if your home will be more than one story.
- Propane tanks should not be near anything flammable; best if underground (if practical).
- Do not build open car ports

Plan a Firewise Landscape

The home itself and everything around it up to 100-200 feet is known as the home ignition zone (HIZ). Within this 200-foot area, there are three zones. Contact Paul Branson to conduct a free HIZ assessment.

Zone 1 encircles the structure and attachments for at least 30 feet on all sites.

In this area:

- Create a “fire-free” area within five feet of the home using non-flammable landscaping materials.
- Remove dead vegetation from under deck and with 10 feet of house.
- Space conifer trees 30 feet between crowns. Trim back trees that overhang the house. Clear all brush under these trees and prune tree 6-10 feet from the ground.
- Consider fire-resistant material for patio furniture
- Remove firewood stacks and propane tanks

Zone 2 is 30-100 feet from the home and plants in this zone should be low-growing.

- Create clusters if possible, and leave 30 feet between these clusters.
- Encourage a mixture of deciduous (aspen) and coniferous trees.
- Create “fuel breaks” like driveway, gravel walkways and lawns.

Zone 3 is 100-200 feet from the home and this area should be thinned, although less space is required than in Zone 2.

- Remove smaller conifers that are growing between taller trees.
- Remove heavy accumulation of woody debris.
- Reduce the density of tall trees so canopies are not touching.

For more information regarding this topic, please refer to this link below:

<https://static.colostate.edu/client-files/csfs/pdfs/firewise-construction2012.pdf>