



AUSTIN FIRE DEPARTMENT

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Wildfire Prevention Guide: Roofing and Ventilation Openings

Wildfires are often spread by embers landing on roofs or entering a structure through ventilation openings. Once an ember ignites combustible material, the resulting fire may smolder undetected for quite some time, subsequently destroying the structure and spreading to other buildings and/or vegetation, allowing the wildfire to grow.

Providing a fire-resistant roof is one of the most impactful ways to reduce a home's vulnerability to wildfire: installing a Class A roof and providing screens at ventilation openings are two ways to improve the roof system.

The City of Austin has three classes of ignition-resistant construction required based on the home's proximity to wildland; a greater level of protection is required the closer you get. Those levels are as follows:

- Proximity **Class A**: Fifty (50) feet or closer to the wildland.
- Proximity **Class B**: Greater than 50 feet and up to 150 feet from the wildland.
- Proximity **Class C**: Greater than 150 feet up to 1.5 miles from the wildland.

ROOFING

A Class A fire-rated **roof assembly** is required for homes in Proximity Class A or B. For homes in Proximity Class C, only a Class A fire-rated **roof covering** is required. For *all* Proximity Classes, specific roof underlayment and roof valley requirements must be met.

Class A is the highest fire rating for a roof assembly or covering. It is important to verify with the manufacturer if a product is rated as Class A; you'll want to also request documentation that confirms this information.

<u>Proximity Class A and B</u>	<u>Proximity Class C</u>
Class A fire-rated roof assembly	Class A fire-rated roof covering

QUESTION: What is a Class A fire-rated roof assembly and how is this different from a roof covering?

For a roof assembly to achieve a Class A fire-rating, all of the components are tested together in the manner they will be installed. Not all components will have a Class A rating individually, but when combined with other materials that enhance their fire-resistance capabilities, they can create a Class A roof assembly.

- **Roof covering:** The material you visually see on the exterior (e.g., shingles, metal, and clay tile).
- **Roof assembly:** A roof system including a roof covering, roof deck, and any layers that contribute to the system (e.g., underlayment or insulation).

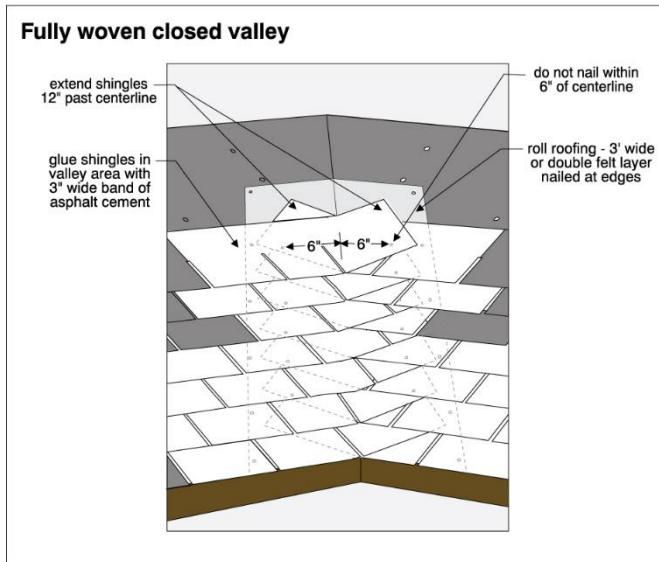
ROOF VALLEYS

To meet the International Wildland-Urban Interface Code (IWUIC) requirements, valley flashings must be metal, or have valley shingles that are weaved or woven (closed valley). Descriptions for both are noted below:

- **Metal Valley Flashing:** Corrosion-resistant metal {0.019 inch (0.48 mm; No. 26 galvanized sheet gauge)} installed over a minimum 36-inch wide (914 mm)

underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surfaced, non-perforated cap sheet (complying with ASTM D3909) running the full length of the valley.

- **Woven Valley:** Shingles woven (closed valley) to create a continuous layer, flashed using 26 gauge (0.019 inch) galvanized sheet metal running the full length of the valley and extending at least 12 inches on both planes of the roof surface. Below are examples of a woven valley:



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IF YOU CHOOSE TO HAVE GUTTERS

Leaves and debris can build up in gutters and ignite from wildfire embers. Therefore, gutters and downspouts shall be constructed of non-combustible materials, with non-corrosive and non-combustible guards to prevent the accumulation of items that may help embers catch and spark a fire.

VENTILATION OPENINGS

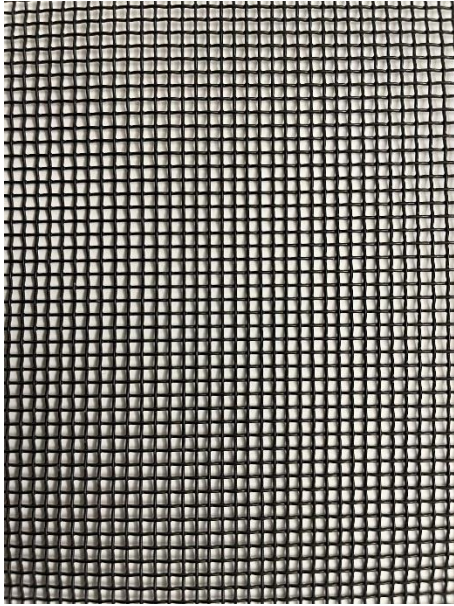
Ventilation openings serve an important role for a building, but are also problematic; they can provide an opportunity for embers to enter and ignite combustible materials. Non-combustible screening at these openings can reduce the size and number of embers that may enter a building during a wildfire.

Ventilation openings that require protection include: attic vents, underfloor vents, exterior wall vents, and others. Protection is not required at dryer vents or plumbing vents.

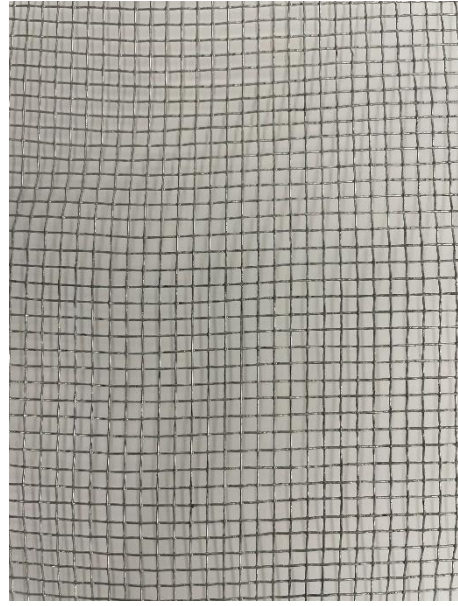
Attic ventilation openings shall not be located in:

- Soffits (*Soffit vents are allowed for buildings within Proximity Class C*);
- Eave overhangs;
- Between rafters at eaves; and/or
- Other overhang areas.

Gable end and dormer vents must be 10 feet or more from the lot line. Ventilation openings may not exceed 144 square inches. These vents must be covered with non-combustible corrosion-resistant mesh with openings that are 1/8-inch (3.3 mm) or less (see photos below for examples). Window screen material is not acceptable; it is too thin, and will melt or combust when exposed to embers, heat, and flame.

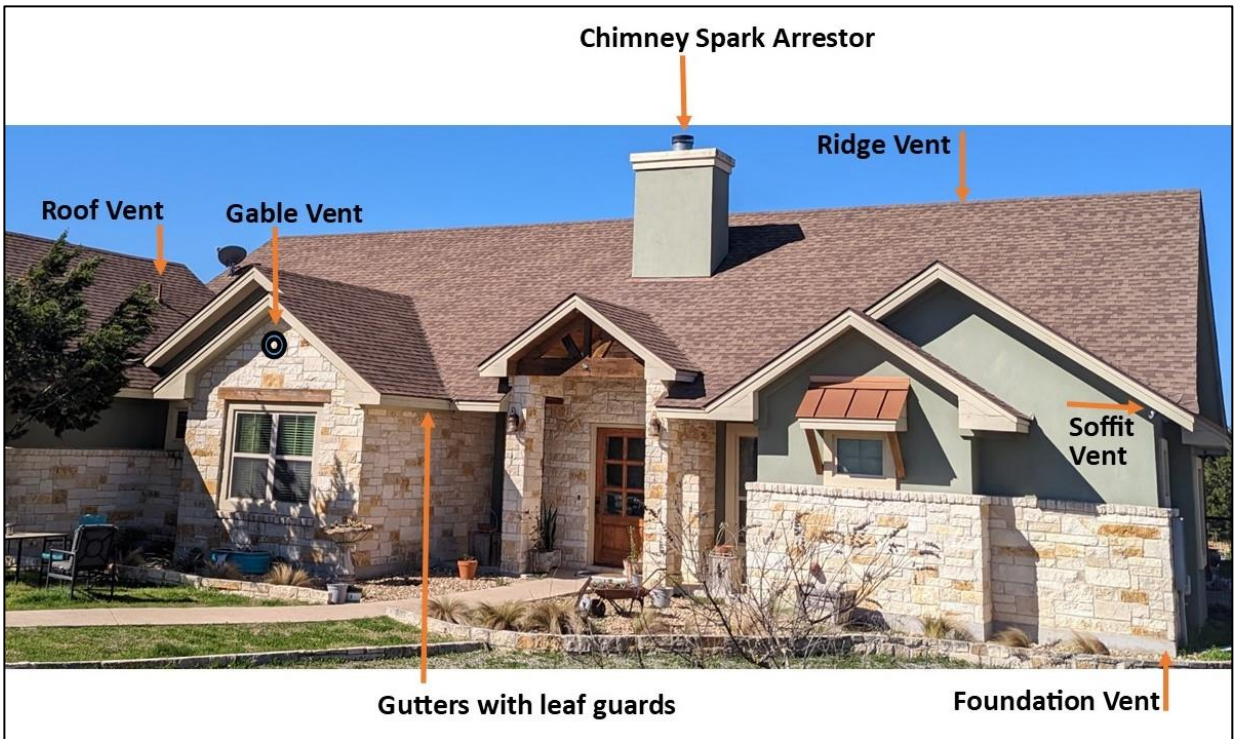


Noted photo



below that

is a



illustrates the proper items discussed herein.