

RESIDENTIAL ROOFING BASICS

INSTALLATION & PRODUCT GUIDE

RESIDENTIAL ROOFING SHAPES

Residential roofs can include several different shapes, which can present challenges to a roofing professional. Understanding the different roof shapes is critical to an installer, allowing you to better support clients in selecting the right roof for their home.



Open Gable



Box Gable



Dormer



M Shaped



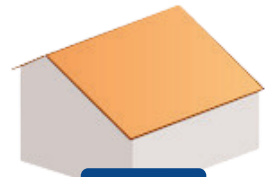
Hip



Jerkinhead



Dutch Gable



Salt Box



Combination



Cross Hipped



Intersecting/ Overlaid Hip



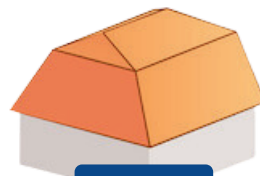
Butterfly



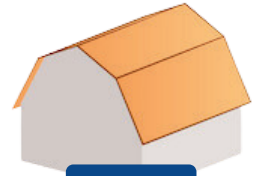
Hip and Valley



Flat



Mansard



Gambrel



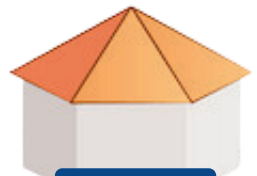
Skillion and Lean-to



Shed



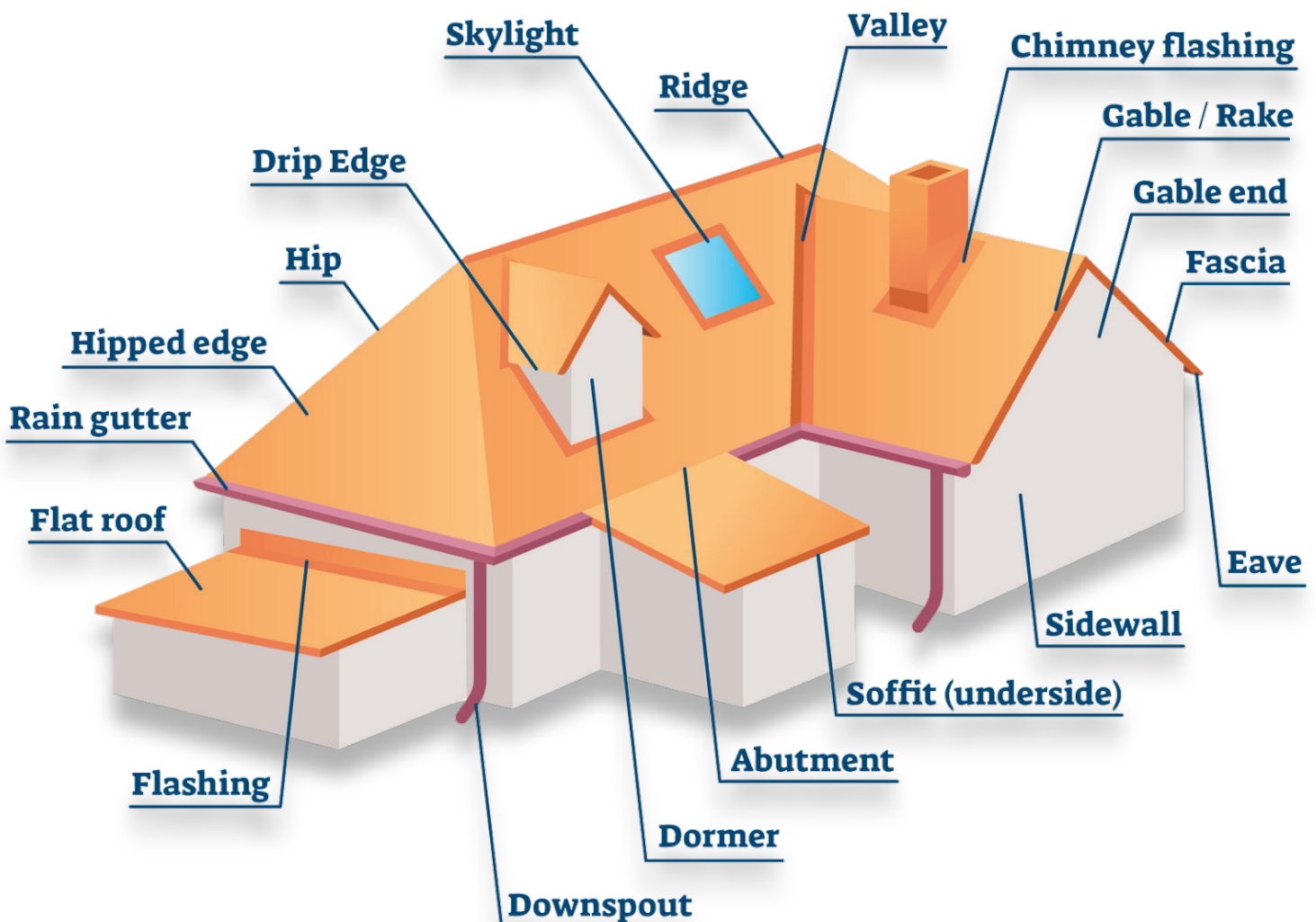
Pyramid Hip



Hexagonal

RESIDENTIAL ROOFING PARTS

A roof is a complex system containing many parts that all play a vital role in the roof's proper function. It is important as a roofing professional to be familiar with the complete roof system, knowing what each part of the roof does and why.





EAVES

An eave is the roof's edge that overhangs the wall. Its primary purpose is to direct rainwater away from the walls and to provide shading for windows and walls.



RAKES

A rake is the exposed part of a gabled roof that extends from an eave to the ridge of the roof's sloped sides. It covers the top edge of a roof and is typically cut from a variety of roofing materials.



RIDGES

The roof ridge is the horizontal line running the length of the roof where the two roof planes meet. This intersection creates the highest point on a roof, sometimes referred to as the peak.



A hip roof is a roof where all four sides of the roof slope downwards from the peak. It does not have a gable or a flat end.



Flashing is a flat, thin piece of metal used to help waterproof the perimeter and protrusions of roofing systems. Flashing is used to direct water away from the seams and joints. It prevents water from entering the openings and cracks in a roof.



A roof valley is when two roof facets meet at a slope to form an interior angle. The main purpose of a roof valley is to allow water to flow down the roof properly.



DRIP EDGE

Drip edges are metal sheets, usually shaped like an “L,” installed at the edge of the roof. Also called drip edge flashing or D-metal, they serve a vital function by directing water away from the fascia and into the gutter.



DECKING

Roof decking, also called sheathing, is the foundation of the roof, connecting it to the frame of the home. It's the base that lays on top of the attic's structural trusses to cover the rafters and support the weight of the roofing materials.



SOFFITS

The soffit is the material beneath the eave that connects the far edge of the roof to the exterior wall of the house. They are often vented.



UNDERLAYMENT

Roofing underlayment is what lies between the roofing material and roof deck. It is typically either plywood or OSB. It's installed directly on the roof deck and provides a secondary layer of protection from the elements, including rain, snow, and wind.



FASCIA

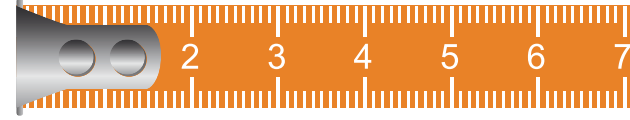
The fascia board is the long, straight board that runs along the lower edge of the roof. The fascia is fixed directly to the lower ends of the roof trusses and typically supports the lower edge of the roof. Gutters are attached to the fascia.



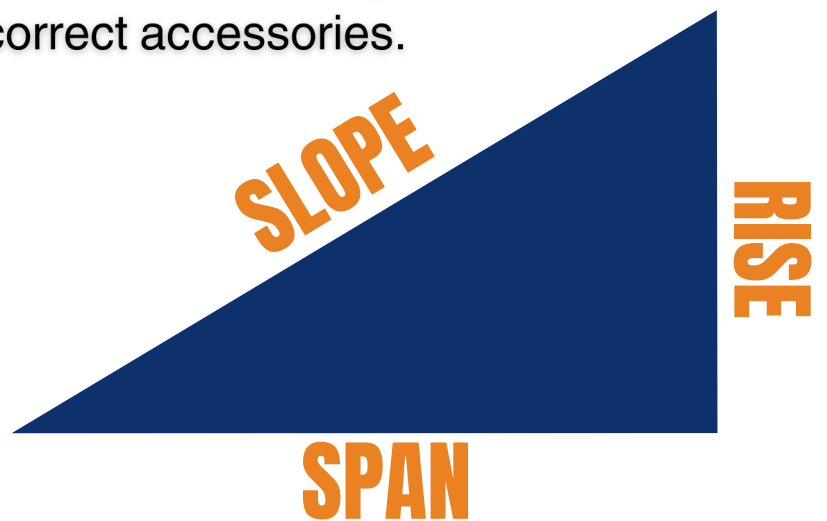
ROOF VENTS

Roof vents play a crucial role in maintaining the overall health and longevity of the home. They help remove excess moisture, heat, and stale air from the attic space, preventing damage to the roof and reducing the risk of structural issues.

MEASURING A ROOF



Correct measurements of the roof are critical, helping to avoid under/over bidding, ordering the wrong amount of material, or not coming prepared with the correct accessories.



There are several measuring software options out there to assist you with accuracy. Some even work off images and do not require on-site measurements. MRA recommends utilizing an option that works best for you.

ROOF PITCHES

1:12

2:12

3:12

4:12

5:12

6:12

7:12

8:12

9:12

10:12

11:12

12:12

COMPARING ROOFING MATERIALS

ASPHALT



- ▶ Typically a lower cost option
- ▶ Easier to install
- ▶ Most common roofing material used
- ▶ Usually easier to locate an installer



- ▶ Limited lifespan, ranging from 10-20 years
- ▶ Cleaning often causes loss of granules and damage to roof
- ▶ Not eco-friendly, made of crude oils and other chemicals
- ▶ Highly combustible due to composition
- ▶ Provides limited protection in severe weather events

NOTES:

COMPARING ROOFING MATERIALS

SHAKE



- ▶ Average lifespan of 30+ years
- ▶ Typically comes with a 30-50+ year warranty
- ▶ Considered eco-friendly if sourced from a sustainable manufacturer
- ▶ Recyclable



- ▶ Requires frequent cleaning to prevent mold, pests, staining, etc.
- ▶ May require protective treatments every 1-3 years
- ▶ High risk in wildfire prone areas and may present additional issues in severe weather events
- ▶ Maintenance typically required every 2-4 years

NOTES:

COMPARING ROOFING MATERIALS

SLATE



- ▶ May improve home resale value
- ▶ Average lifespan of 75+ years
- ▶ Considered eco-friendly and recyclable
- ▶ Typically comes with a 30-50+ warranty



- ▶ Heavy weight = potential need for a structural inspection prior to installation
- ▶ Not an ideal platform for solar
- ▶ Slate is brittle so any impact can result in cracked or broken tiles
- ▶ Limited style options and color selections. Also susceptible to color variations if replaced
- ▶ Expensive

NOTES:

COMPARING ROOFING MATERIALS

TILE



- ▶ Average lifespan of 30+ years
- ▶ Typically comes with a 30-50+ warranty
- ▶ Considered eco-friendly and recyclable
- ▶ Energy efficient
- ▶ Minor upkeep may be needed



- ▶ Heavy weight = potential need for a structural inspection prior to installation and increased framing costs
- ▶ Limited wind resistance. Can become a safety hazard during extreme winds
- ▶ Frequent repair / replacement of tiles may be needed
- ▶ Limited style, shape, and color options
- ▶ High maintenance (given need to clean off moss, organic growth)

NOTES:

COMPARING ROOFING MATERIALS

METAL



- ▶ May improve home resale value
- ▶ Average lifespan of 50+ years
- ▶ Potential savings on insurance
- ▶ Light weight = less shippings costs and framing requirements
- ▶ 100% recyclable and eco-friendly
- ▶ Offers superior protection in severe weather events
- ▶ Easy to maintain, repairs and replacements are rare
- ▶ Can replicate any roofing style and is available in a wide range of colors, styles, and shapes
- ▶ Energy efficient
- ▶ Ideal platform for solar installation



- ▶ Fewer installers depending on the region
- ▶ May be more expensive than asphalt

NOTES:

ROOF *Repair or Replacement*

Homeowners often have a hard time determining whether their roof needs to be repaired vs. replaced. A roofing professional should be able to assist homeowners in determining which way to go based on an inspection of their current roof.



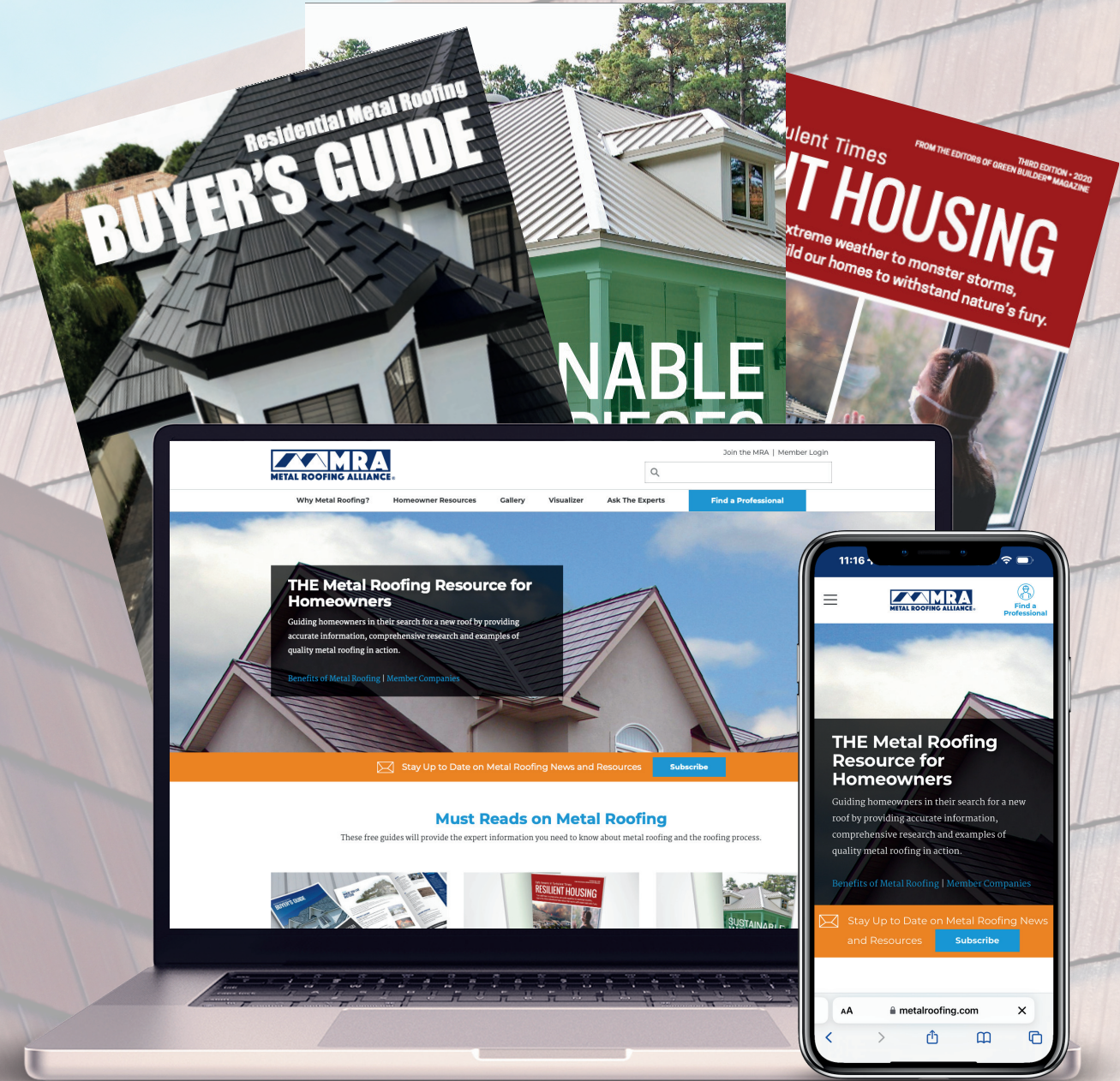
Inspect areas around vents, pipes, and chimneys for loose material or damage

Inspect the roof for missing shingles and damage such as cracked, torn, loose, or bald shingles

Other Signs Of Damage To Look Out For:

- ▶ Blocked or inadequate ventilation
- ▶ Stains on roof decking and / or walls
- ▶ Punctures or tears
- ▶ Mold growth
- ▶ Discoloration of roofing material
- ▶ Excessive gaps in roofing shingles
- ▶ Missing or loose flashing

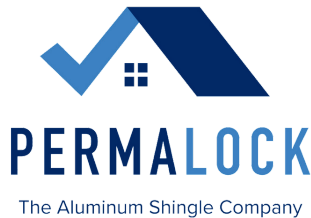
Partner with MRA and Provide Your Clients with the Information They Need



PARTNER WITH MRA

As an MRA member, you'll partner with industry leaders to grow the metal roofing market. Your company will be promoted as an industry expert through strong marketing and outreach efforts. You'll also have the opportunity to connect with homeowners, receive market data, access marketing materials, and more.

MRA Manufacturer Members Provide Quality Metal Roofing



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