



Roof

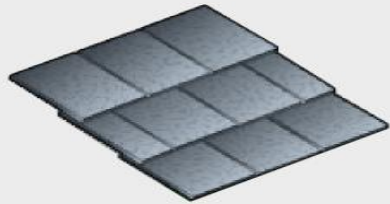
Roof

- A roof is the top covering of a building, including all materials and constructions necessary to support it on the walls of the building or on uprights; it provides protection against rain, snow, sunlight, extremes of temperature and wind.

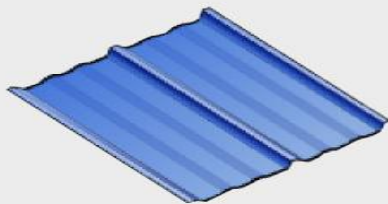


Roof materials

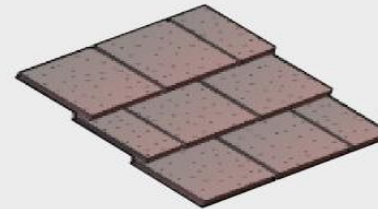
ROOFING MATERIALS



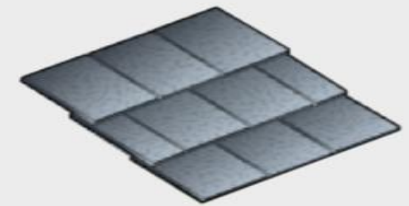
ASPHALT/
COMPOSITION



METAL
STANDING
SEAM



CONCRETE
TILE



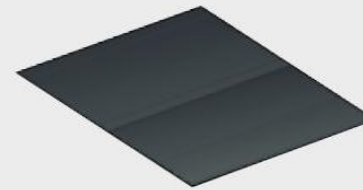
METAL/
ALUMINUM
SHAKE



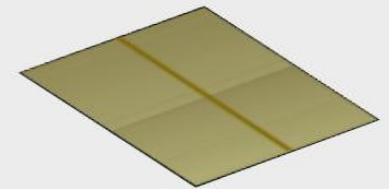
WOOD
SHAKE



CONCRETE/
CLAY TILE



VINYL
MEMBRANE



ROLLED/
FLAT ROOF

Roofing materials

Here is a list of 9 different types of roofing to consider for your next re-roofing job:-

1. Solar tiles

- Advanced solar collectors integrate seamlessly into existing shingles, generating up to 1 kilowatt of energy per 100 square feet. They're particularly good for sunny roofs in homeowners' associations that forbid typical solar panels. While they may help offset energy costs with solar power, they also cost more than traditional solar options.



Roofing materials

2. Asphalt shingles

- Asphalt shingles are the most common roofing materials in America because they're effective in all environmental conditions. Quality varies widely, so ask whether they pass the ASTM D3161, Class F (110 mph) or ASTM D7158, Class H (150 mph) wind tests and the AC438 durability test. Upfront costs are low, but you should expect to replace the shingles after about 20 years. If you live in a hail prone area, consider impact resistant shingles which have a UL 2218 Class 4 rating. Impact resistant shingles may qualify for a discount on your homeowner's premium.



Roofing materials

3. Metal roofing

- Metal roofing comes in vertical panels or shingles resembling slate, tile and shake – and lasts about 60 years. Metal excels at sloughing off heavy snow and rain, won't burn and resists high winds. It is lightweight and can be installed over existing roofs. However, metal can be noisy during rainstorms, and may dent from hail. Average costs range between \$5 and \$12 per square foot, depending on type and style of metal – which is more than asphalt but less than concrete tiles. Corrosion also varies by material.



Roofing materials

4. Stone-coated steel

- Interlocking panels mimic slate, clay or shingles and resist damage caused by heavy rains (up to 8.8 inches per hour), winds of 120 miles per hour, uplifting, hail and freeze-thaw cycles. Consequently, they're an economical, effective choice for wet, windy regions or areas prone to wildfires. Some stone-coated steel roofs are warranted for the lifetime of the house.



Roofing materials

5. Slate

- ▶ Slate roofing lasts more than 100 years. It won't burn, is waterproof and resists mold and fungus. Slate is effective in wet climates but is expensive, heavy and may be easily broken when stepped on. Keep this in mind if you live in an area that experiences hail.



Roofing materials

6. Rubber slate

Rubber slate looks natural and can be cut with a knife to fit intricate roofs like those found on Victorian homes. Rubber slate roofs can last 100 years but can be damaged by satellite dishes and walking – so may also be susceptible to damage by hail, similar to slate. Roofing professionals that are trained to install rubber slate may be hard to find.



Roofing materials

7. Clay and concrete tiles

Clay and concrete roof tiles can withstand damage from tornadoes, hurricanes or winds up to 125 miles per hour and even earthquakes, according to "A Summary of Experimental Studies on Seismic Performance of Concrete and Clay Roofing Tiles" by the University of Southern California for the Tile Roofing Institute. They are good in warm, dry climates. They may require extra support to bear their weight, and they are likely to break when walked on.



Roofing materials

8. Green roofs

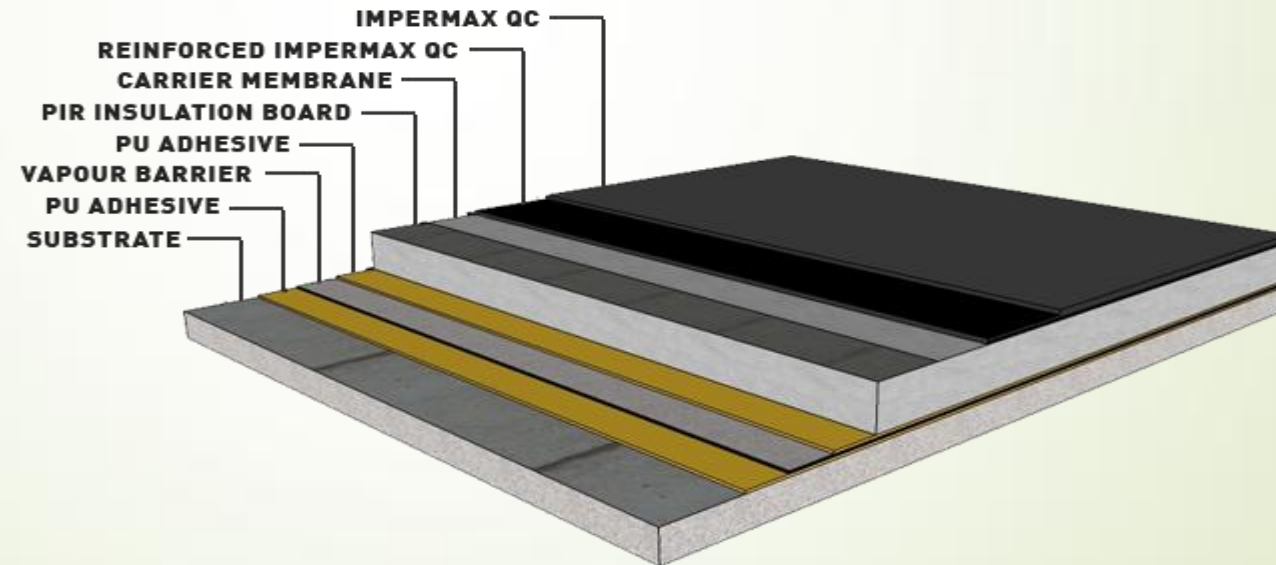
- Green roofs are covered with plants and can improve air quality, reduce water runoff and insulate homes to reduce urban heat islands. However, they need extra structural support, a vapor barrier, thermal insulation, waterproofing, drainage, water filtration, soil, compost and plants. Their estimated lifespan is 40 years.



Roofing materials

9. Built-up roofing

- This heavy roofing consists of layers of asphalt, tar or adhesive topped with an aggregate and is only for flat roofs. Tar and gravel roofs, also for flat roofs, are best for roof-top decks with heavy foot traffic. These roofs may become sticky in summer, and it is harder to shovel snow off of these roofs when compared to smooth surfaces. They can last 20 to 25 years.

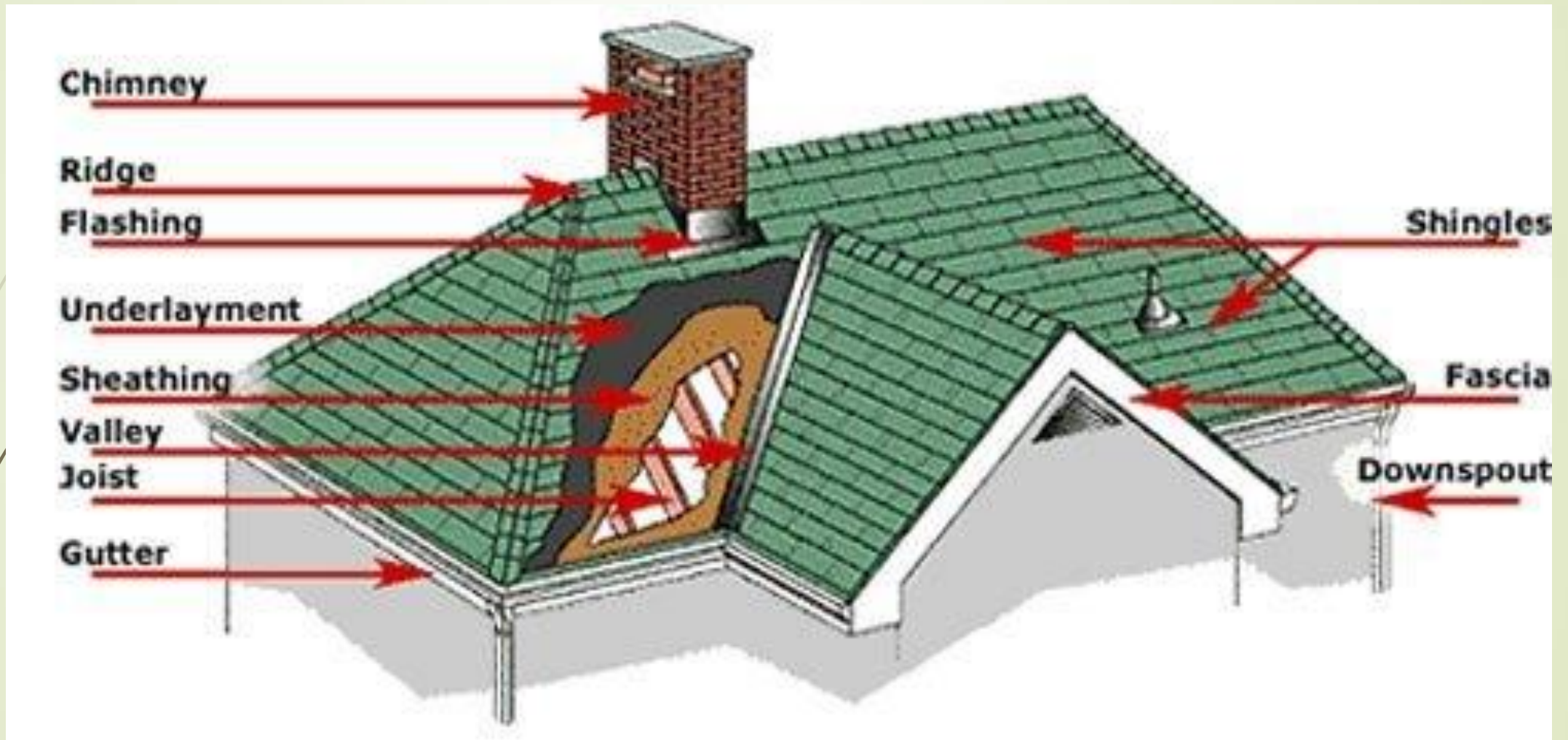




Layers of Roof

- Shingle
- Sheathing/Decking
- Ridge cap
- Edge metal
- Felt/ Underlayment
- Insulation
- Ice and Water barrier (Only in- MA,PA,VT,ME,NH,CT,RI)
- Flashing
- Roof vent
- Roof Jack.

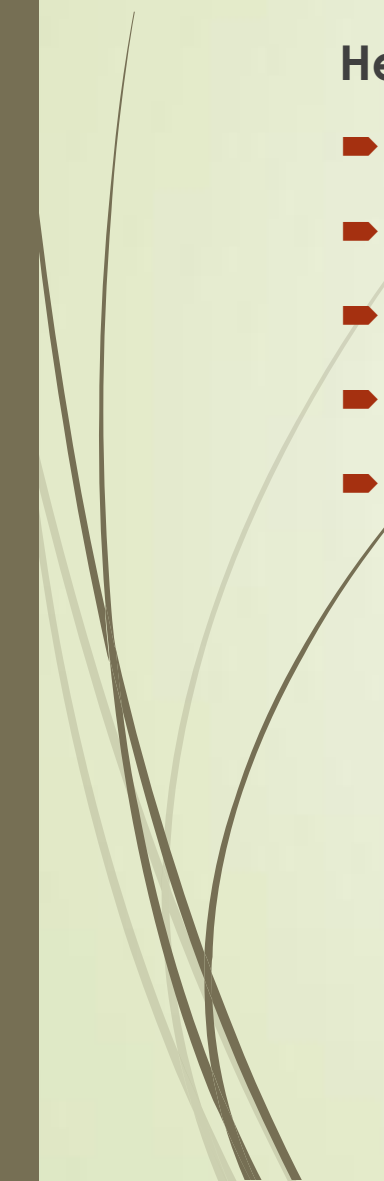
Roof parts





Causes of Roof damage

Here are the top five causes of roof damage to most homes.

- **Roof Damage** Cause #1: Tree Limbs & Debris. ...
 - **Roof Damage** Cause #2: Weather. ...
 - **Roof Damage** Cause #3: Birds and Animals. ...
 - **Roof Damage** Cause #4: Faulty Gutters. ...
 - **Roof Damage** Cause #5: Water **Damage**.
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Roof damage types

- ▣ Roof damages can be divided into 2 category.
- ❖ **Repairable-** (can repair by remove/replacement of small portion of roof, sealing, tar patching and tarping)
- ❖ **Non-repairable-** (Will need to remove and replace the damaged area of the roof/ entire roof)

***** Follow bids in the excel docs in details*****



Thank You