

## Multiple Unit Habitational Roof Safety

If you manage a commercial habitational building, such as an apartment building, condominium, hotel, motel or dormitory, make sure that roofs are up to code, properly maintained, and capable of protecting the building and people who live there.

### Roof Types

Rooftops come in different shapes and sizes and can be made out of a variety of materials. There are advantages and disadvantages to the many options, and the most suitable type of roof will depend on factors, including the location and most common risks.

The roof material is also very important. For example, buildings may have clay tiles, asphalt shingles, slate or metal roofing, among other options. When selecting a roofing material, it's important to consider how resistant it is to the risks in the area, such as straight-line winds, thunderstorms and winter storms. Locations in areas prone to hailstorms should use impact-resistant replacement roofing materials that are listed or approved by a recognized testing organization. It is also important to consider the durability of the material. The type of roof you have will impact how long you can go before repairing and replacing it.

### Wind Protection

If you live in an area that is prone to hurricanes, it is critical to recognize the importance of having roofs built to withstand strong winds. But did you know that wind speeds as low as 50 miles per hour can also cause wind damage? Tornadoes, derechos, and powerful thunderstorms are a threat to your roof, and buildings in the U.S. are traditionally built with this in mind.

However, special consideration must be given for high-risk regions. FEMA recommends the following practices in high-wind, coastal regions:

- Asphalt roof shingles should be installed using special methods, and local building codes should be consulted for additional installation requirements
- Wind-resistance ratings should be used to select shingles, even though these ratings should not be relied on for performance
- When selecting shingles, choose shingles with class rating equal to – or even better, greater than – the basic wind speed specified in the building code
- Underlayment should always be used

- Special attention should be given to roof-to-wall flashing and enhanced flashing techniques
- When building within 3,000 feet of saltwater, stainless steel nails should be used as fasteners



### Winter Protection

In coastal areas, hurricane season may be the most dangerous time of the year, but winter poses its own threats in northern areas. Freezing weather can do a number on roofs.

### Snow Load

It's important to know your building's snow load capabilities to determine when the snow load on the roof may pose a danger.

The type of snow impacts its weight. Fresh, light, dry snow may weigh about three pounds per cubic foot, while wet, heavy snow can weigh 21 pounds per cubic foot. Ice is much heavier, coming in at 57 pounds per cubic foot.

Additionally, snow load on the roof may not be equal to the snow load on the ground. Various factors, including sliding and drifting snow and accumulation around roof valleys and equipment, can lead to bigger weight loads. Water can form into ice under rooftop snow, greatly increasing the weight load per square foot. Also, snow saturated by falling rain can increase weight load.

Watch out for signs of snow load damage, including sagging roofs or cracked ceiling and walls. Also, look for water stains and windows or doors that stop opening and closing properly. Roof snow removal can be dangerous, and it must be done correctly to prevent additional snow damage, so it is best to contact a professional snow removal team for assistance.

## **Ice Dams**

If snow melts and refreezes on the roof, it can create ice dams that can do considerable damage to the roof.

To prevent ice dams, keep gutters clear so melted snow will be able to drain properly. Proper attic ventilation and insulation can also help prevent ice dams.

As with excessive snow load, it's smart to enlist professional help to remove ice dams.



## **Hailstorms**

When hail lands on roofs, it can do considerable damage. Shingles, vents and gutters are all vulnerable to hail damage.

After a storm, check the roof for dents, and check the shingles for damage and granule loss.

States where hail is especially common – Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Mississippi, North Dakota, Nebraska, New Mexico, Oklahoma, South Dakota, Texas and Wyoming – should use impact resistant replacement roofing materials. Impact Resistant Roofs are typically designated as “Critical” in these states, unless located outside of designated hail prone counties. Outside of hail prone counties, impact resistant roofing can be designated as “Advisory.” Contact [AskLC@amtrustgroup.com](mailto:AskLC@amtrustgroup.com), if considering non-impact rated roofing in the listed states.

## **Fire Protection**

Wildfires are a growing problem, especially in western states like California.

Building fires are also a serious concern for commercial habitational buildings. A kitchen fire that starts in one unit of a large apartment building, for example, may spread to many other units if proper measures are not in place.

A building’s roof can also provide essential protection against fires. A roof is also especially vulnerable to fire, so extra care and protection must be given when selecting roofing material.

- Select the right roofing material. Fire ratings for roof coverings include Class A, B and C or unrated.
- Clear debris in gutters and in gaps in the roof. During a fire, this debris can become kindling. It's also important to clear debris and plant matter immediately around the building.
- Fire walls can help stop a fire from spreading. Where roofs or walls are combustible, fire walls should pierce the exterior construction.
- Wood shake roofing is not recommended.

## **Maintenance**

Proper roof maintenance is essential for commercial habitational buildings. Keep your roof updated by doing the following:

- Have the roof inspected at least twice a year, before and after storm season
- Between inspections, keep an eye out for signs of damage to the roof, including missing or broken shingles, cracks in the walls or ceilings, or water stains
- Keep the roof, gutters and downspouts clear of debris
- Have any damage fixed immediately – before it gets worse
- Know the type and expected lifespan of your roof
- Budget for repairs and replacements

## **Safeguard from Claims Caused by Others – Contractual Risk Transfer**

Before hiring outside contractors, visit [amtrustfinancial.com/loss-control/industry-resources/liability](https://www.amtrustfinancial.com/loss-control/industry-resources/liability) for Risk Transfer resources to protect your organization by using Contractual Risk Transfer

## **Sources**

- <https://www.nssl.noaa.gov/education/srvwx101/wind/>
- <https://www.fema.gov/media-library-data/20130726-1706-25045-9347/chapter8.pdf>
- [https://www.fema.gov/media-library-data/20130726-1536-20490-8282/fema499\\_7\\_3.pdf](https://www.fema.gov/media-library-data/20130726-1536-20490-8282/fema499_7_3.pdf)
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