



5 Steps to a Safer and Stronger Home

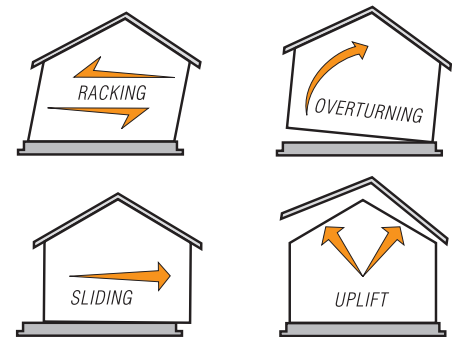
What you need to know to make your home hurricane and high-wind resistant.

As you prepare to build or remodel your home, knowing these simple steps will help to ensure your home is structurally sound and storm-resistant. We've included important questions to ask as well as a handy glossary, so you'll know what you're talking about.

1. Wise Up on Wind.

Knowing how high winds work will help you make your home safer and more secure. There are three ways winds can affect your home:

- Uplift – wind flows over the roof of your home, creating a lifting effect.
- Racking/Sliding – wind exerts horizontal pressure which can cause your home to tilt; it can also cause sliding where the house is forced off its foundation.
- Overturning – when the home is unable to rack or slide, wind can cause the walls to rotate off the foundation.



How High Winds Affect A Home

2. Create a Path.

A continuous load path, that is. A continuous load path is a method of construction that ties your house together from the roof to the foundation using a system of framing materials, metal connectors, fasteners (like nails and screws) and shearwalls. This system connects and strengthens the structural frame of the house. If your home is built with a continuous load path, it will be better equipped to resist the forces of high winds by redistributing the pressure of the wind from the exterior of your house to the frame, and then to the foundation. You'll also want to make sure your home is built with storm shutters, impact-resistant windows and wind-resistant garage doors.

3. Crack the Code.

What are the residential building codes in your county? Learn about your codes and how they are enforced. Are changes being made to the building code that will make your home safer? Check with your building department to determine if you live in a high wind speed zone – building standards are more stringent for areas susceptible to high wind. Keep in mind the residential building code requires that homes are built with a continuous load path.

4. Know Your Builder/Remodeler.

Check the reputation of your builder or remodeler. Quality builders and remodelers will know that you live in a high-wind area and will have your safety in mind. They will build or remodel your home using a continuous load path. Interview your builder/remodeler and ask them questions about how your home can be more wind-resistant.

5. Get Involved, Stay Involved.

Involve yourself in the building process from start to finish. Ask questions and visit the jobsite often, particularly when your house is being framed.

5 Questions to ask at the Jobsite

The answer to each should be “Yes.”

1. Is my home built with a continuous load path?

Yes. Your home should be tied together from the roof to the foundation.

2. Is my roof secured properly?

Yes. The roof decking should be securely nailed to the roof framing (rafters or trusses).

3. Is my roof connected to the top story/floor of my house?

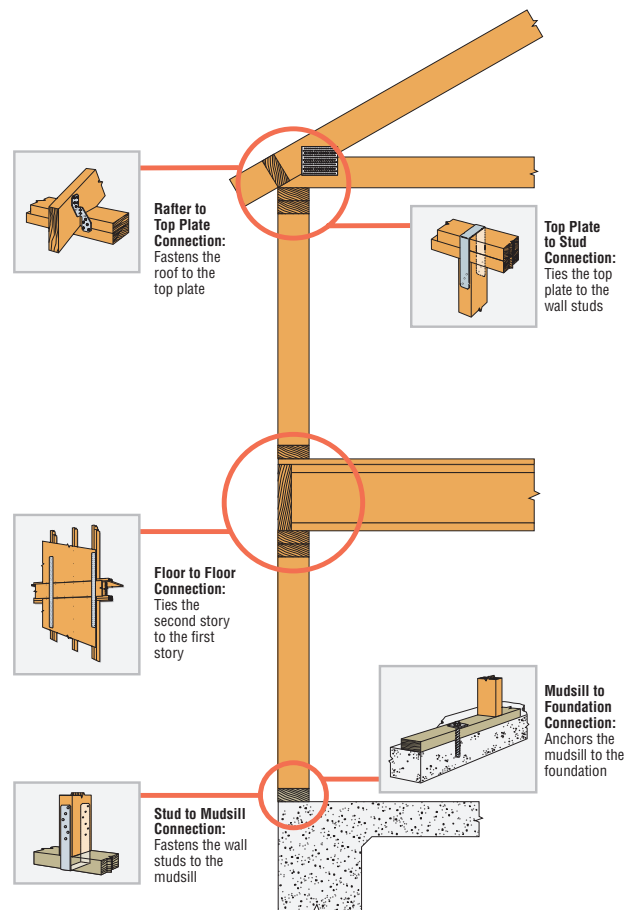
Yes. Roof framing (rafters or trusses) should be securely fastened to the top of the wall with metal connectors, such as hurricane ties, based on your local building code requirements.

4. Are the walls on each story/floor of my house properly connected to each other? Are there enough shearwalls on each story/floor?

Yes. The studs that run along each wall should be properly connected to the top plate and the bottom plate with metal connectors. If you live in a two-story house, the walls on the top story should be connected to the walls on the lower story with connectors or strap ties. Shearwalls with holdowns should also be installed at various locations within a home to resist racking and overturning forces.

5. Is the bottom story/floor of my house properly bolted to the foundation?

Yes. The mudsill should be attached to the foundation with mudsill anchors or anchor bolts.



Continuous Load Path

Ties Your Home Together from the Roof to the Foundation

Glossary

(Metal) Connectors

Steel components that connect the frame of the house together. Connectors are used where two pieces of framing material meet. They are designed to strengthen a home and increase its ability to resist high winds, hurricanes and other forces.

Continuous Load Path

A system of construction that provides a method of transferring external or internal forces from the frame of the house to the foundation by ensuring that each joint between framing members is connected together.

Fasteners

Fasteners typically refer to nails, screws, bolts or anchors. They are used to join framing materials together either by themselves for light-duty connections or in conjunction with connectors for heavier connections.

Foundation

The block wall, concrete wall or concrete slab a house sits on.

Framing Materials

In wood-frame construction, framing materials typically refer to studs, sill plates, rafters/trusses, and sheathing material.

Holdowns

Heavy-duty connectors that anchor the ends of shearwalls to prevent overturning.

Hurricane Ties

Metal connectors specially manufactured to fasten the roof to the wall framing.

Mudsill (Sill Plate)

The bottom plate of a wood framed wall which is in-between the bottom of the studs and the foundation. This plate is chemically pressure treated to resist potential decay caused by moisture in the foundation.

Mudsill Anchors

Connectors that anchor the mudsill and wall framing to the foundation (your builder/remodeler may also use anchor bolts).

Rafter/Truss

A structural wood member that supports the roof.

Shearwalls

Reinforced walls within a home that have been engineered to help resist the shear (racking) forces that are caused by high winds. Shearwalls are typically constructed by attaching wood sheathing and hold-down connectors to a section of the wood framing along a wall. Pre-manufactured shearwalls are also available.

Strap Ties

Flat metal connectors that tie the upper story to the lower story or anchor down ends of headers or beams.

Studs

Vertical wood members that compose the framework of a wall.

Top Plate/Bottom Plate

Horizontal wood members that run along the top and bottom of wall sections. (Wall sections should be properly secured to the top and bottom plate.)