



Protecting Your Property from Wind

FEDERAL EMERGENCY MANAGEMENT AGENCY

ARE YOU AT RISK?

If you aren't sure whether your house is at risk from hurricanes or tornadoes, check with your local building official, city engineer, or planning and zoning administrator. They can tell you whether you are in an area where these high-wind events occur. Also, they usually can tell you how to protect yourself and your house and property from the effects of high winds.

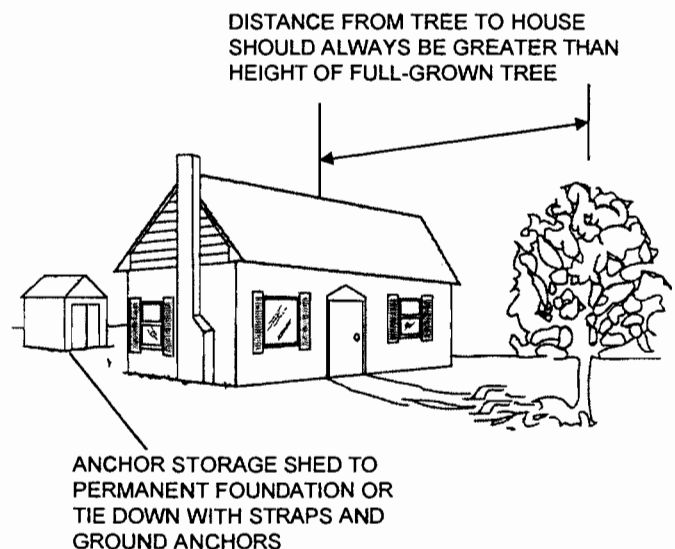
WHAT YOU CAN DO

Hurricane and tornado protection can involve a variety of changes to your house and property -- changes that can vary in complexity and cost. You may be able to make some types of changes yourself. But complicated or large-scale changes and those that affect the structure of your house or its electrical wiring and plumbing should be carried out only by a professional contractor licensed to work in your state, county, or city. One example of hurricane and tornado protection is clearing the area around your house to remove trees and materials that can be hazardous during high winds. Removing debris and small trees are things that many homeowners can probably do on their own.

REMOVE TREES AND POTENTIAL WINDBORNE MISSILES

If the area immediately surrounding your house contains trees, outbuildings, trash cans, yard debris, or other materials that can be moved by the wind, your house will be more likely to be damaged during a hurricane or tornado. The wind can topple trees onto your house and can pick up smaller objects and drive them through windows and glass doors.

You should ensure that all trees are far enough away from your house that they can't fall on it. So the distance between your house and any nearby tree should always be greater than the height the tree will reach when it is fully grown. All storage sheds and other outbuildings should be securely anchored, either to a permanent foundation or with straps and ground anchors. Smaller objects, such as trash cans, barbecue grills, and outdoor furniture should also be anchored or, if you have adequate warning, moved indoors. You should also clear away any debris, such as fallen tree branches.



Remove Trees and Potential Windborne Missiles

TIPS

Keep these points in mind when you remove trees and potential windborne missiles from around your house:

- ✓ Removing large trees near your house can be extremely dangerous, for both you and your house, and therefore is a job for a skilled contractor.
- ✓ The straps and ground anchors used for manufactured homes also can be used to anchor out-buildings, especially small garden sheds, which are usually not placed on a permanent foundation.
- ✓ You can secure outdoor furniture and barbecue grills by bolting them to decks or patios or by attaching them to ground anchors with cables or chains.
- ✓ You can secure trash cans with cables or chains attached to ground anchors or to wood posts firmly embedded in the ground. Trash can lids should be tied to cans with cables or chains.

ESTIMATED COST

If you hire a contractor to remove a large tree, you can expect to pay about \$300 to \$500. Having a contractor anchor a storage shed with straps and ground anchors will cost about \$100 to \$200.

OTHER SOURCES OF INFORMATION

Against the Wind, FEMA 237 (Brochure 2-0003; Video 0-0001), 1993

Building Performance: Hurricane Iniki in Hawaii -- Observations, Recommendations, and Technical Guidance, FIA-23, January 29, 1993

Building Performance: Hurricane Andrew in Florida -- Observations, Recommendations, and Technical Guidance, FIA-22, December 21, 1992

Best Build I, Constructing a Sound Coastal Home, FEMA and the NAHB (videotape)

To obtain copies of these and other FEMA documents, call FEMA Publications at 1-800-480-2520. Information is also available on the World Wide Web at <http://www.fema.gov>.