



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.

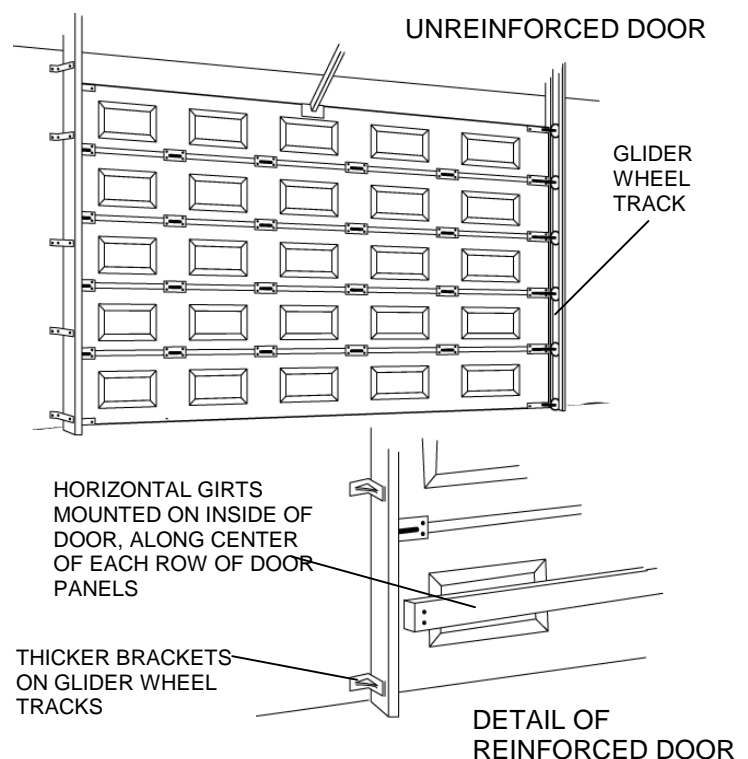
WHAT YOU CAN DO

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; however, 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 reinforcing garage doors to protect them from damage by high winds, or replacing them with doors that are more wind-resistant. These are things that should be done only by a trained door systems technician.

REINFORCE OR REPLACE GARAGE DOORS

High winds from hurricanes and tornadoes can damage garage doors or even blow them in. If wind enters a garage, it can cause dangerous and expensive structural damage. Reinforcing your garage door helps you protect not only your garage, but its contents as well.

The garage door industry strongly recommends that any determination concerning the need to reinforce or replace a garage door be based on an inspection by a trained door systems technician or a qualified professional engineer. Adding weight to a garage door in the form of reinforcement may require an adjustment to or replacement of the door's counterbalance system. Only a trained door systems technician should perform the adjustments or replacement. An inspection may find that other improvements should be made to an existing door, and if the door is old or damaged, replacement with a stronger door system may be recommended.



Reinforce or Replace Garage Doors

TIPS

Keep these points in mind when an inspection by a trained door systems technician or qualified professional engineer has determined that your garage door needs to be reinforced or replaced:

- ✓ Because of the extreme amount of stored energy in the door counterbalance system combined with the potential impact on the counterbalance system's effectiveness when weight is added to an existing door, reinforcing a garage door is a job that should be done **only** by a trained door systems technician.
- ✓ A local garage door professional should be able to assess the wind load requirement of your garage door, which is based on size, local design wind speed, and location on the structure, among other factors. The Door & Access Systems Manufacturers Association International (DASMA) can also be of help in this area.
- ✓ Don't wait until a hurricane warning is issued to have your garage door evaluated; there will probably not be enough time for this service to be provided.
- ✓ Glazing (windows) in a garage door can be broken by windborne debris and should be avoided. If glazing is installed, it should be protected. Your local garage door professional or DASMA may be able to advise you on garage door glazing and the governing requirements.

ESTIMATED COST

If you hire a contractor to reinforce or replace an existing two-car garage door, you can expect to pay about \$600. However, this cost can vary depending on the size and type of door.

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>.

Information is also available from DASMA, by phone at 1-216-241-7333, or on the World Wide Web at <http://www.dasma.com>