



## 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.

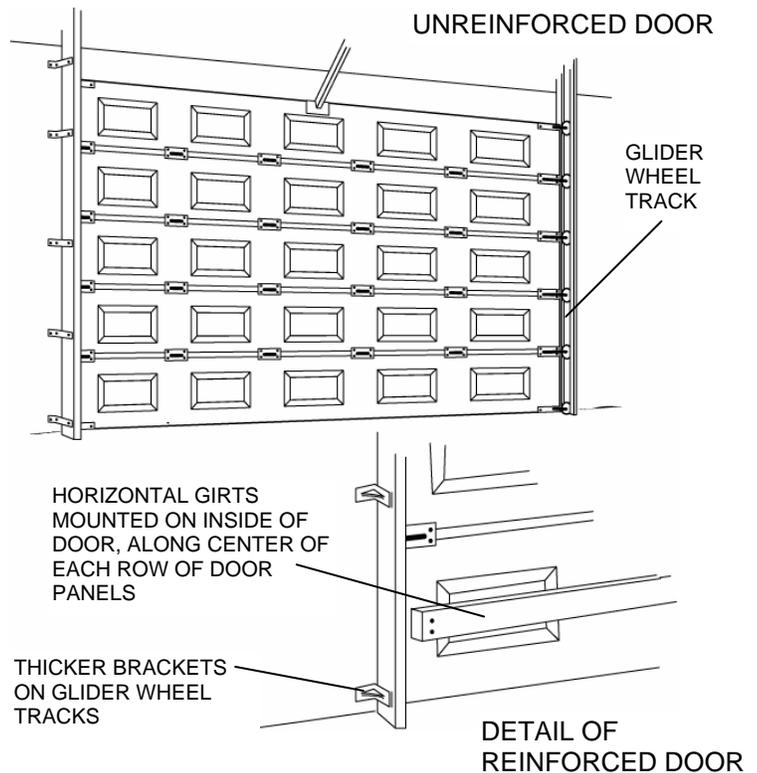
## WHAT YOU CAN DO

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. These are things that skilled homeowners can probably do on their own.

## 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.

As shown in the figure, you can reinforce a garage door by adding girts across the back of the door and by strengthening the glider wheel tracks. If your existing door is old or damaged, you might want to replace it with a stronger door and tracks. Even if you decide to buy a new door, reinforcing it is still a good idea. Hardware and home supply stores, as well as companies that specialize in overhead door sales and installation, can advise you about stronger doors and track systems.



# Protecting Your Property From Wind

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## Reinforce or Replace Garage Doors

### TIPS

Keep these points in mind when you reinforce or replace your garage doors:

- ✓ Reinforcing an existing garage door is something you may be able to do yourself if you have the necessary skills and tools, or you can hire a contractor to do the work. The necessary materials, including metal brackets and wood boards for girts, can usually be found at a lumber yard, hardware store, or home supply store.
- ✓ Single-car garage doors usually resist wind forces better than two-car garage doors.
- ✓ Don't wait until a hurricane warning is issued to reinforce your garage door; you probably won't have time.
- ✓ Installing a new garage door is more than a one-person job and is not the type of work that most homeowners who lack the necessary skills and equipment would want to undertake. If you buy a new door, you may want to either have the seller install it or hire a contractor.
- ✓ If you are buying a new door, get one without windows. Unless covered, glass is easily broken by high winds and windblown debris. Again, one reason for protecting your garage door is to prevent wind from entering the garage.

### ESTIMATED COST

If you hire a contractor to reinforce an existing two-car garage door, you can expect to pay about \$300. The cost of replacing a door, including installation, can vary greatly, 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>.