

## **Hurricane Property Protection**

The Daniel Island Architectural Review Board (ARB) has prepared the following information to help residents prepare their property should Daniel Island be threatened by severe weather. If residents elect to have additional protection that needs ARB approval, please be sure to submit these types of modifications to the ARB office prior to all work being completed. Modification Applications are available online ([www.dicomunity.org](http://www.dicomunity.org)) or in the Property Owners' Association office. More information may be obtained by contacting the ARB office at [\(843\) 881-6122](tel:843-881-6122).

There are six areas; windows, doors, vents, shingles, seals and surroundings, to make homes more secure. By paying attention to these areas, residents can reduce the chance of wind and water damage to homes and contents.

### **WINDOWS**

Make sure that every window can be easily protected before a hurricane strikes. When wind speeds climb above hurricane force, impact resistant panels will provide much needed protection from flying debris that can break window panes, and can also reduce water intrusion. If a home already has operable hurricane shutters, use them. Other options include professionally installed systems that meet building code approved standards, which should be ordered as soon as ARB approval is received since the wait for installation may be long.

### **DOORS**

**Entry doors** can be forced open by wind pressure or the impact of flying debris. All doors should have at least three hinges and a security lock with a dead bolt, and the door framing should be securely anchored to the wall structure. Unless a home has a newer door or a sticker indicating it is rated for wind pressure and flying debris, it is safe to assume it is not an impact rated door.

Double entry or "French doors" have been particularly susceptible to failure from wind pressure and should have the highest priority for strengthening or shuttering.

Newer sliding glass **porch doors** use tempered glass, which is significantly stronger than regular window glass. (If it is tempered glass a label indicating this will be etched in one of the corners.) However, the loss of one of these doors creates a large opening for wind and water to enter. Shuttering the doors is one of the most effective ways to protect them from flying debris, and should help reduce water intrusion.

Because of their size, **garage doors** are highly susceptible to wind damage, including buckling, twisting off the tracks and impact from debris. One of the simplest solutions is to replace the door and its tracks with a door that is code approved for both wind pressure and impact protection. Another solution is to protect the garage door with a shutter or screen product that is rated for both wind pressure and debris impact. In addition, vertical bracing systems can be effective for supporting the door against wind pressure loading.

## **VENTS**

Water entering attic space can soak the insulation and can lead to collapsed ceilings. Water can get in where roof covering is lost, through gable vents, and through soffits. Gable vents can be sealed with sheets of plywood or polycarbonate as if they were windows. Even though gable end vents may have louvers designed to keep water out, they are not designed to keep out water driven by hurricane force winds.

## **SHINGLES**

Keeping shingles on your house is extremely important. Check to make sure they are well secured to the roof, particularly along the roof edges. A common problem is that edge shingles are not well fastened or extend beyond the drip edge. Once the perimeter shingles lift off, a peeling process starts and creates a domino effect. The attachment of perimeter shingles can easily be checked by gently trying to lift the lower edge of the shingle. If it comes up without much effort (older shingles become brittle and may crack when bent too much), then you should secure them. If you find that a lot of shingles, including ones away from the edge, are poorly adhered, budget for a new roof in the near future.

## **SEAL**

In addition to entering through gable end vents and soffits, water can invade homes in a number of other ways, especially when it's being blown horizontally.

Look for holes where wires, cables, and pipes enter and exit the house. In addition to openings for cable TV and telephone lines, seal all the way around electrical boxes and circuit breaker panels. Pipe penetrations include AC refrigerant lines, AC condensate lines, water heater pressure relief lines and water pipes.

## **SURROUNDINGS**

Limiting possible sources of wind-borne debris before a storm will help protect your home and those around you. Replace gravel/rock landscaping materials with shredded bark. In a particularly strong hurricane, gravel has been found in mailboxes. Keep trees and shrubbery trimmed. Cut weak branches. Limit yard objects like garden statuary, and remove chairs or other furniture. Move anything outside that can become flying debris into your house or garage.

If a home is in or near a construction area, please be aware that the Daniel Island ARB has a Hurricane Preparedness plan for Authorized Builders to follow and works in conjunction with the Properties Owners Association and Authorized Builders on the Island to secure job sites and Island amenities.

## **Shutters:**

Protection of an opening is probably the most important thing one can do to improve the chance a home will survive a hurricane. Openings include all windows, entry doors, sliding glass or

French doors, garage doors, and gable end vents. If one of the options below is desired, ARB approval must be attained prior to any installation (except plywood). In addition, protective coverings may only be used during an actual hurricane/tropical storm threat for a period no to exceed 5 days prior to the threat and 5 days after the threat has passed through the area. Below is a list of possible options to consider for protecting openings.

*Permanent Installations:*

*Operable Shutters*

Architectural styles of operable and fully functional shutters shall be historically and architectural correct. Shutters must be custom to fit your windows and can be either wood or composite shutters. Both are made to withstand the elements but composite shutters provide a low-maintenance alternative to historically accurate wooden shutters. All shutter hardware must be proper functioning and must be architecturally consistent. The style (panel, louvers, board and batten, bahama) of shutters and color selected must be architecturally consistent with the style and design of the home they are being installed on.

*Non-Permanent Installations:*

*Storm Panels*

Kevlar and Spectra storm panels are acceptable forms of hurricane protection. Storm panels must be installed with the use of Tampins (or similar hardware). The Tampins must be painted to match the existing color they are installed onto on the home. The panels shall be fitted proportionately to each window per attachment.

*Replacement Windows and Doors with windows*

Window upgrade/replacement with impact-resistant windows and doors with windows is an acceptable solution for homes which shutters are not architecturally correct. Replacement windows and doors, and all hardware must be architecturally consistent with the original windows and doors, and have no negative effect on the appearance of the home.

*Window Safety Film*

Window Safety Film must be clear-colorless and undetected on the glass of the window. There are two methods of installation: chemical or mechanical attachment. If installed using the mechanical attachment method, any hardware used must be concealed within the surrounding window sash and/or casement by either being factory painted to match the existing trim or painted to match the trim after installation, and having no architectural aesthetic effect on the appearance of the home.

*Non-Permanent Installations:*

*Storm Panels*

Storm panels must be installed with the use of Tampins (or similar hardware). The Tampins must be painted to match the existing color they are installed onto on the home. The panels shall be fitted proportionately to each window per attachment.

### *Hurricane Shutters*

Hurricane shutters are available in two styles; roller shutters and accordion shutters. Both must be concealed within the window head and jamb of the window supporting structure so the window frame dimensions remain proportional to the original window frame and trim. All hardware must be architecturally consistent with the home and shall be concealed within the window trim.

### *Plywood*

If used correctly, Plywood can be an inexpensive method of protection. If one intends to use plywood, it should be cut to fit proportionately to each window (cuts can be made by your local home improvement store). Plywood panels should be labeled ahead of time, and installed with stainless steel anchors around the windows. *Do not let the plywood overlap the window opening and attach it to the structure using concrete nails. This technique can cause more harm than good since in even moderately high winds, most of these poorly-attached boards will be ripped off and become dangerous flying missiles.* **NOTE:** The use of plywood for the protection of all openings will leave holes in the home when installed. These holes must be repaired after the plywood is removed, returning the home to its original architectural integrity.

## **HURRICANE RECREATIONAL EQUIPMENT SAFETY**

Planning for the safety of recreational equipment and where it will survive best all depends on the location. And determining what steps you need to take should begin before severe weather threatens. The first major decision, one that affects all subsequent action, is: Where will you keep your watercraft, camper, four wheeler, trailer, etc...? It is imperative that residents keep in mind that all recreational equipment has to be stored away from residential neighborhoods on Daniel Island. This includes a driveway, alley or the street. Additional property damage can occur should a storm have high winds and the possibility of a storm surge if recreational equipment is left in a residential neighborhood.

## **INSURANCE TIP**

Don't forget to review any homeowners' insurance policy as well as a flood insurance policy periodically to make sure there is sufficient coverage to rebuild a home if it sustains storm damage.