



BUILD FORTIFIED

# FORTIFIED STANDS UP TO HURRICANE SALLY

In an effort to reduce damage to commercial structures and help businesses re-open more quickly following severe weather, the Insurance Institute for Business & Home Safety (IBHS) developed FORTIFIED Commercial™, a voluntary, superior construction standard and designation/compliance program.

FORTIFIED Commercial employs an incremental approach with three levels of designations available—FORTIFIED Roof™, FORTIFIED Silver™, and FORTIFIED Gold™—so design professionals can work with building owners to choose a desired level of protection that best suits their budgets and resilience goals. Each project goes through a rigorous design and review process to ensure protection against Mother Nature.

The program launched in 2016 and IBHS began designating commercial properties along the Gulf Coast of Alabama. These initial FORTIFIED Commercial properties were tested against the hurricane forces of Sally when the storm made landfall in Alabama in September.

## OVERALL BUILDING PERFORMANCE

Each of the FORTIFIED Commercial properties in the path of Hurricane Sally performed at or above expectations. There was one case of minor damage, which occurred to a single-ply thermoplastic polyolefin (TPO) membrane above a cast-in-place concrete deck. In this location, the roof cover failed due to an improper adhesion rate. No water infiltration occurred. Minor mechanical unit damage was noted. The overall damage equated to less than .05% of the total building cost.



## HURRICANE SALLY HIGHLIGHTS

**DATES:** September 11–18, 2020  
(made landfall on September 16)

**INTENSITY:** Category 2 Hurricane

**LANDFALL:** Western Florida  
Panhandle and southern Alabama

**UNIQUE PARAMETERS:** Hurricane Sally underwent a rapid intensification phase prior to making landfall. Additionally, the storm moved at a very slow pace at a maximum of 5 miles per hour, making this a high-wind, long-duration event with peak wind gusts of 104 miles per hour.

“There was primarily cosmetic damage on the side of the building but other than that, the hotel never closed, our restaurants never closed, and we actually served as a beacon of hope for many in this community.”

-Bill Bennett,  
General Manager of The Lodge at Gulf State Park

## CONTINUITY OF BUSINESS OPERATIONS

The success of the FORTIFIED properties went beyond the minimal property damage to include business operations continuity. The Lodge at Gulf State Park was able to offer shelter to numerous guests before, during, and after the event, including State employees and The Weather Channel. Neither hotel nor restaurant operations were impacted, allowing the staff to provide essential services such as breakfast to its guests the morning following landfall. After the storm, approximately 10% of The Lodge employees were staying on property with their families due to damage to their own homes.

Business continuity was not only visible at The Lodge, but across our 19 designations. For example, Colonial Inn condominiums (a FORTIFIED Gold-designated building) sustained no building damage and had continuous power. Each unit on site has a backup generator pad with connections for a portable or permanent generator.

## ADDED VALUE THROUGH THE COMPLIANCE PROCESS

Through proper plan review and vigorous site inspections, FORTIFIED Commercial provided added value prior to the storm by identifying problems that may have been left unattended such as:

- Design flaws
- Improperly attached / loose flashing
- Inadequate roof cover and insulation board fasteners
- Inadequate roof-mounted equipment fastening
- Inadequately designed photovoltaic systems
- Improperly installed shingles
- Improperly fastened gutters
- Improperly fastened lightning protection systems



## DESIGNATED COMMERCIAL BUILDINGS IN ALABAMA

At the time of landfall, there were 19 designated properties.

Year of designation:

- 6 in 2018
- 11 in 2019
- 2 in 2020

Designation levels:

- FORTIFIED Roof - 14
- FORTIFIED Silver - 4
- FORTIFIED Gold - 1

Building locations:

- Daphne
- Fairhope
- Foley
- Gulf Shores

Occupancies:

- Auditorium
- Boarding houses
- Condominium complex
- Conference center
- Educational (classroom spaces)
- Medical facility
- Mid-rise hotels
- Offices
- Restaurants
- Sports rehabilitation facility

Roof cover types:

- Architectural metal panel
- Asphalt shingles
- Single-ply membranes (TPO and PVC)
- Structural metal panels

Roof deck types:

- Plywood
- Tongue and groove wood panels
- Metal
- Concrete