

# BUILDING RESILIENCE DESIGN AND CONSTRUCTION STANDARDS

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.

### Why FORTIFIED?

- Reduces risk of financial loss that comes from damaged property, lost inventory, and lost revenue due to business interruption; accomplished by strengthening roof systems, elevating vulnerable mechanical systems, and having backup power.
- Helps get your business up and running more quickly following severe
  weather, which helps protect business operations and livelihoods, and
  helps retain employees and reduce employee stress; studies show that 1 in
  4 small businesses do not recover after closing due to a natural disaster.
- Lowers overall cost of recovery; a 2018 study by the National Institute of Building Science (NIBS) shows that for every \$1 spent on FORTIFIED Commercial construction, approximately \$4 is saved in disaster recovery expenses.

#### **How Do I Build to FORTIFIED?**

- 1. Visit <u>fortifiedcommercial.org</u> to learn about the standards and how the process works.
- Determine the level of resilience you want to achieve (FORTIFIED Roof, FORTIFIED Silver, or FORTIFIED Gold).
- 3. Complete an online application.
- 4. Work with a third-party evaluator provided by IBHS to verify compliance with the standards.

# FORTIFIED Commercial focuses on community-based and light to moderate commercial structures such as:

- Multi-family residential/residential (when not governed by the IRC)
- Template ("cookie-cut") stand-alone buildings
- Franchises (e.g., quick-service restaurants)
- Hotels
- Convenience stores/gas stations
- Pharmacies/retail stores
- Business services
- Schools/municipal buildings
- · Mixed use

Excluded occupancies include highhazard and appurtenances such as barns and sheds. Please see the FORTIFIED Commercial standards for more information.



## KEEP WIND AND WATER OUT AND ROOF-MOUNTED EQUIPMENT ON

- Stronger roofing system designed to provide better protection against severe wind
- Gutters and downspouts designed and tested for outstanding performance
- Sealed roof deck required for steepsloped roofs
- Superior skylights designed and tested to withstand water intrusion and large missile impact
- Roof-mounted equipment must be designed for increased wind pressures



## PROTECT THE ENVELOPE AND REDUCE BUSINESS OPERATIONS DOWNTIME

- All FORTIFIED Roof requirements must be satisfied
- · In hurricane-prone regions:
  - All windows and glazed openings must be impact-rated or protected to minimize water and wind/wind pressure intrusion
  - Wall systems must be impact-rated
  - Exterior doors must be impact-rated or protected
- Parapets and false fronts must be adequately braced and anchored
- Electrical and mechanical equipment must be protected from flood/water damage
- Electrical connections must be installed to easily connect backup power



## KEEP THE BUILDING TIED TOGETHER AND MAINTAIN BUSINESS OPERATIONS

- All FORTIFIED Silver requirements must be satisfied
- Load path must be engineered and verified
- Canopies must be adequately anchored/supported
- · Backup power must be provided

\* FORTIFIED Commercial designations are currently only available in Alabama. If you build with FORTIFIED Commercial standards outside of Alabama and you meet the minimum requirements of FORTIFIED Commercial, you will receive a letter of compliance from your FORTIFIED Commercial Evaluator.