New Building Codes Reduce Risk Along Gulf Coast

Full Mitigation Best Practice Story

Multiple Counties, Alabama

Orange Beach, AL - Following Hurricane Ivan's landfall on Sept. 15, 2004, Alabama homeowners with houses built to a higher building standard were rewarded with significantly less damage. The higher building standard, contained in the International Building Code (IBC), requires far better construction materials and sturdier framing for winds up to 140 mph.

Understanding the risk of hurricanes, Al Bradley decided to build his home in Orange Beach, Alabama, to minimize potential damages from hurricane winds and tidal surges. Though Mr. Bradley had received his building permits before Orange Beach adopted the new IBC in June 2004, he decided to incorporate the new code into his construction. As a result, he had virtually no damage. Wade Nofziger, of FEMA's Hazard Mitigation Team in Alabama, said "Compared to all the damage around the home, its survival was quite a visual contrast to the devastation in the area – even the back deck steps survived."

The Town of Dauphin Island adopted the new IBC in March 2004. Most of the 91 homes constructed over the previous 18 months were built to IBC in anticipation of the new requirement. According to Jim Reaves, the Town's Building Official, these houses fared far better than older homes standing nearby. None of the newer homes were significantly damaged, even though some were built on the exposed south side of the island and were near homes that had been badly damaged. An initial estimate of Hurricane Ivan's destruction on Dauphin Island's older homes was 44 destroyed houses and 100 homes with damages that may result in demolition.

The City of Gulf Shores, recognizing the need to rebuild homes to be stronger and less vulnerable to high winds and tidal surges, adopted the IBC on Sept. 27, 2004. The adoption was unanimously approved by the Council members and the Mayor. Therefore, homes rebuilt during the recovery from Hurricane Ivan will be better able to withstand future hurricanes.

Activity/Project Location	
Geographical Area:	**Multiple Counties in a State**
FEMA Region:	**Region IV**
State:	**Alabama**
County:	**Baldwin County; Covington County; Escambia County; Geneva County; Houston County; Mobile County**

Key Activity/Project Information

Sector:	**Public**
Hazard Type:	**Hurricane/Tropical Storm**
Activity/Project Type:	**Building Codes**
Activity/Project Start Date:	**09/2004**
Activity/Project End Date:	**Ongoing**
Funding Source:	**Local Sources**
Funding Recipient:	**Local Government**

Activity/Project Economic Analysis

Cost:	**Amount Not Available**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster?	**No**
Value Tested By Disaster?	**Yes**
Tested By Federal Disaster #:	**No Federal Disaster specified**
Year First Tested:	**2004**
Repetitive Loss Property?	**Unknown**

Reference URLs

Reference URL 1:	**http://www.fema.gov/**
Reference URL 2:	**http://ema.alabama.gov/**

Main Points

- Alabama houses built to a higher building standards contained in the International Building Code (IBC), requiring far better construction materials and sturdier framing for winds up to 140 mph.
- The Town of Dauphin Island adopted the new IBC in March 2004. Most of the 91 homes constructed over the last 18 months were built to IBC in anticipation of the new requirement.
- The City of Gulf Shores, recognizing the need to rebuild homes to be stronger and less vulnerable to high winds and tidal surges, adopted the IBC on September 27, 2004. The adoption was unanimously approved by the Council members and the Mayor.

Homes damaged by Hurricane Ivan.

house built to IBC requirements