



PROJECT PROFILE

2005 Gulf Coast Hurricanes

Structural Performance Assessment and Damage Documentation | Gulf Coast



CLIENT

Zurich North America

BACKGROUND

The 2005 hurricane season was one of the worst on record and produced three damaging hurricanes: Hurricane Katrina devastated wide areas of New Orleans, southern Louisiana, and southern Mississippi; Hurricane Rita made landfall a month later and damaged wide areas of southeastern Texas and southwestern Louisiana; Hurricane Wilma damaged areas in Cancun, Mexico, and southern Florida. These storms yielded unprecedented structural damage from wind, flooding, and storm surge.

WJE—specializing in structural performance assessment, determination of damage causation, and structural documentation—was called upon in the immediate hours and months following these storms. Significant assignments included structural and roofing assessments of evacuation centers, notably the New Orleans Superdome and Convention Center. Other projects included nearly one thousand residential property surveys as well as performance assessments and damage documentation of hospitals, shipyards, schools, churches, and commercial properties.

SOLUTION

Shortly after Hurricane Katrina hit New Orleans, WJE established a team that coordinated dozens of engineers operating in Texas, Louisiana, Mississippi, Alabama, and Florida. By the end of 2005, WJE had performed structural inspections on more than 3,500 structures for more than two hundred clients under more than 820 separate engagements.

Knowledge gained from these investigations positioned WJE to better develop repairs and replacement structures that will meet performance expectations in future hurricanes. The lessons learned provide WJE engineers with knowledge to better assess existing structures and predict performance characteristics under extreme wind, storm surge, and flooding events.

