



FEMA

Hurricane Mitigation Protects Plaquemines Parish Home

Myrtle Grove, LA - Watching the television coverage of Hurricane Katrina from their son's home in Texas, Gayle and Warren Lawrence expected their home in Louisiana to be destroyed when they returned. The Lawrence home is in Plaquemines Parish. This southernmost Louisiana parish is bounded by the Gulf of Mexico on three sides, and the Mississippi River runs through the middle. Waterways, marine life, and fishing and hunting grounds are plentiful.

There are perils associated with the outdoor lifestyle in Plaquemines Parish. High winds and high water are commonplace, and the area is very prone to hurricane activity. The Lawrences knew that to live safely and securely in this high risk area, they would need a well-built home with wind and flood protection. Hurricanes Katrina and Rita tested their home to its limits.

Myrtle Grove Marina Estates, the subdivision where the Lawrences reside, provides homeowners with bylaws recommending coastal construction principles. By following these recommendations and incorporating a few extra hurricane resistance techniques, Mr. and Mrs. Lawrence afforded themselves added protection. To guard against floodwater and moisture, and in accordance with local requirements, several feet of fill were brought in, thereby raising the ground level. The house was then elevated on concrete walls another 12 feet, putting the home 4 feet above local building requirements. Composite concrete board, a type of wall covering that will not warp or soften when exposed to moisture, was installed in place of the more commonly used drywall.

To provide superior wind and impact resistance, a 7-inch thick concrete wall reinforced with 5/8-inch steel rebar was poured at the ground level. Walls in the living area were upgraded using 6-inch studs, instead of the standard 4-inch, to provide extra strength. Storm shutters were installed to protect the doors and windows throughout most of the home. The points connecting the walls with the roof and foundation are prone to failure during high winds. Mr. Lawrence added metal clip anchors to foundation and roof joints. In this two-story home, the upper story wall framing was firmly connected to the lower framing.

Shortly after Hurricane Katrina, the Lawrences surveyed the damage. Gayle Lawrence's first thought as they approached their home was "at least it's still standing." The couple was pleased to discover as they got closer that there was actually very little damage at all. Building to coastal construction recommendations and exceeding the minimum local building code requirements cost the Lawrences more money than standard construction methods, but they strongly feel that the investment was worth it.



**Plaquemines Parish,
Louisiana**



Quick Facts

Sector:
Private

Cost:
Amount Not Available

Primary Activity/Project:
Elevation, Structural

Primary Funding:
Homeowner