

## LaHouse: A Mitigation Model for Louisiana Homes

**Baton Rouge, La.** – The hurricanes, tropical storms, and floods that have struck Louisiana over the decades have destroyed thousands of homes. Better building techniques on display at Louisiana State University are meant to make that level of destruction a topic for the history books rather than the news.

Sparked by the need to educate coastal Louisiana homeowners on how to build hurricane- and flood-resistant homes, the Agricultural Center at Louisiana State University (LSU) constructed the Louisiana Home and Landscape Resource Center, also known as LaHouse. A public-private partnership built with monetary gifts and donated materials, the house's construction began in 2004.

The exhibit house showcases construction best practices and addresses durability as a key component, along with energy efficiency and healthy home benefits. Designed to hold up against 130-mph hurricane-force winds and combat flooding, the house actually passed its first test before it was even completed.

In 2005, crews were framing up the house for high performance when hurricanes Katrina and Rita stunned the Louisiana Gulf Coast with punishing 130-mph winds and catastrophic flooding.

“The house was at a perfect stage of construction to exhibit hazard mitigation methods while everything was fully exposed,” said Claudette Reichel, director of LaHouse.

The lesson worked so well that project leaders decided to put a roof on the frame and leave the house at that stage for two years. Construction resumed in 2008, with completion later that year.

Inspiration for LaHouse came from Florida House, located in Sarasota, Florida. It showcases sustainable building materials and methods. Reichel learned of Florida House and, impressed by its design and construction, made a presentation at LSU urging construction of such a house in Baton Rouge.

“Let's do it!” was the immediate response of Bill Richardson, chancellor of LSU's Agricultural Center.

The stucco and brick home, located on the campus of Louisiana State University in Baton Rouge, has a flood protection level of three feet above base flood elevation.

Every part of LaHouse exhibits better, smarter building techniques, even the attic, an exhibition room, and the garage. The latter has been converted into a 730-square foot multimedia classroom for educational meetings and seminars for homeowners, real estate brokers, contractors, students, and anyone else interested in building water- and wind-resistant homes. Its meeting room/classroom has a hurricane resistant garage door.

The master bedroom's closet, a modified safe room, is designed to withstand 150-mph winds. Throughout the home, windows and doors are placed so they do not create resistance to horizontal wind forces and are either hurricane-rated units or have external protection, such as impact-resistant shutters, panels, and screens.



Most of LaHouse has an aerodynamic roof, called a hip roof, which resists high winds better than a traditional gable roof. Hurricane hardware and structural sheathing tie the roof to the walls and to the foundation, creating a continuous load path that transfers wind forces on the house down to the ground. Roofing and other external materials are impact-resistant and installed to high-wind specifications.

Other features include wind and impact-resistant metal roofing, hidden fasteners that reduce leaks, and sewer lines with backflow valves to reduce the potential for sewer system back up into the house.

Along with guided tours, LaHouse has an educational resource center that provides information to an average of 300 visitors each month. The staff distributes booklets and pamphlets generously upon request, and appreciates the response to the house, and the knowledge visitors have gained from it.

“There was a dire need for a pattern to build by,” Reichel said. “The house has been a huge success.”

*For more information about LaHouse, click on*  
[http://www.lsuagcenter.com/en/family\\_home/home/la\\_house/](http://www.lsuagcenter.com/en/family_home/home/la_house/)