



HOME, TOUGH HOME: The LSU AgCenter's LaHouse, which opened in 2008, is energy efficient and resistant to everything from hurricanes to fires to termites.

BUILDING BLOCKS

The LSU AgCenter's LaHouse includes four different building systems:

Standard framing. Wood framed with 2x4 studs like most Louisiana homes. Studs are laminated strand lumber, and overhead joists are engineered wood I-beams.

Structural Insulated Panel Systems. SIPS combine structural framing and insulation into a single product, in which rigid foam insulation is sandwiched between two "skins" made of oriented strand board, steel, plywood or cement-like material. With pre-cut panels, installation time can be less than half the time of stick framing with little construction waste.

Advanced framing/Optimum value engineered. Uses 2x6 studs. Floor, wall and roof framing spaced and aligned at 24 inches on center, creating 2-foot modules. Examples of increased resource efficiency include the use of two-stud corner framing, single top plates and insulated headers sized for the load-bearing need.

Insulating concrete forms. Walls made by stacking hollow blocks of rigid foams held by plastic strips, placing steel rebar in the cavity and pouring in concrete. Provides continuous insulation and an acoustic and moisture barrier, and backing for drywall, stucco or siding.

SOURCE: LSU AgCenter



DAVID JACOBS

HOUSE OF STEELE: Developer Steele Pollard wants to build a model—or 'idea'—home in his Village at Magnolia Square TND that matches a classical look with advanced building concepts that would be replicable throughout his development.

ARA
ALLISON RAMSEY
ARCHITECTS

THE
LEGARE

2105 Heated Square Feet

3 Bedrooms

3 1/2 Baths

Identification #C0221

First Floor Plan
820 square feet

Second Floor Plan
720 square feet

Loft Floor Plan
565 square feet

16

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COURTESY ALLISON RAMSEY ARCHITECTS

Built to last

Developers are starting to apply weather-resistant, sustainable technologies to the residential market.

BY DAVID JACOBS

The LSU AgCenter's LaHouse opened in 2008 as a model for the latest in strong, weather-resistant, sustainable building technologies. A few developers now are attempting to take the LaHouse principles from the ivory tower to the marketplace.

"We want to prove to the public, and of course prove to the homebuilders, that you can do a sustainable design, a green design, at a reasonable cost that people can live with," says Steele Pollard of Nunnally Pollard Development, which is developing The Village at Magnolia Square TND in Central.

Green building in the Capital Region, while starting to catch on, usually means a one-off project. Pollard wants to build a model—or "idea"—home with a classical look with advanced building concepts that would be replicable throughout his development. He approached builders with a similar idea once before on a proposed subdivision in Slidell.

"The response was, 'What we've always done works. What we've always done sells.' My response was, 'That's all there is.' Basically, we met a roadblock," Pollard says. "We've learned on the homebuilding side to set the example ourselves."

LaHouse provides that example. Located on Gourrier Avenue across from the new Alex Box Stadium, it's a completed house that's energy efficient and resistant to everything from hurricanes to fires to termites, where the kinks in the building process have already been worked out.

"Our homebuilders would not want to be guinea pigs," he says.

Of the four main building systems incorporated into LaHouse, the most likely candidate for Pollard's project is known as "advanced framing" or "optimum value engineered," says Claudette Reichel, the LaHouse project chair. Pollard admits it'll push building expenses above the \$110 to \$115 per square foot his house would cost using standard practices, and refuses to speculate for the record what the final numbers will look like. But he insists the energy savings will allow the homeowner to come out ahead. Having a working idea home will enable potential buyers to see a real electricity bill and do the calculations themselves.

Pollard envisions some snazzy bells and whistles in his homes, like photovoltaic solar panels, but plans to squeeze a lot of savings from low-tech ideas like deeper eaves, lighter-colored roof materials and better natural circulation. Other options include Bermuda shutters for better shading, concrete fiberboard instead of siding, LED lighting, blown-in foam insulation and room-to-room heating and cooling so a seldom-used guest room doesn't get as much air conditioning as the living room. Pollard hopes to achieve gold or even platinum LEED certification on his idea house and perhaps score a feature in *Southern Living* magazine.

"It won't be a duplicate of LaHouse, but it's going to duplicate some of the same concepts," and in some cases take those concepts even further, Reichel says.

She says the AgCenter will begin training design and building teams early this year, with the goal

of creating some standard upgrade options homebuyers could choose from. When it comes to incorporating LaHouse features into standard practice, cost is always the No. 1 concern.

"When you're doing something different from the status quo, you want to make sure you can afford to do it," Reichel says. Contractors also take a risk when they—and their workers—come out of their comfort zones, with the potential for delays, callbacks, and liability for mistakes.

"As we work through it, there are always choices to make. We can help with that, because we understand the relative costs once you get past the learning curve," she says. A builder can achieve 30% energy savings without added expense, she says; for example, the cost of better windows or insulation can be offset with smaller heating and air-conditioning equipment.

Affordable housing developer The Resource Foundation is also working with Reichel, and plans to incorporate some LaHouse concepts into upcoming modular developments in Albany and Baton Rouge. LEED certification is a bit out of their budget, but they plan to meet the "Fortified ... for safer living" standard as measured by the Institute for Business & Home Safety, which requires 20 mph higher wind resistance than the recommended code in a given area.

"It only costs us roughly 5% more than building to code," says Bob Robe, the single-family housing manager for The Resource Foundation in Baton Rouge. "The problem is there's no other market out there for building to this type of method. So we're developing the market." Other builders don't want to put in the extra 5% because they don't see the difference in the appraised value, he says. One insurer, American National Property and Casualty, gives a 25% discount on a homeowner's policy for having a fortified home, but the rest of the insurance industry has yet to catch on.

"[The homeowner] can sit in the living room, look out the front window, watch Katrina walk right through the front yard and more than likely have no issues," Robe says. Fortified homes in Hurricane Gustav's path suffered only shingle damage, he says.

Robe says Reichel is helping Resource conserve energy without using expensive materials; for example, he's finding that in Louisiana there's no reason to build with a vapor barrier as one might in Florida. His planned 107-home Acadian Trace development in Albany can be a blank slate—a "test study"—for different building methods as long as the homes are fortified, he says.

"I really think that once we do this we will show the market that you can do it," he says. "To code is not good enough any longer within 100 miles of the coast."

"We won't have achieved anything if we don't get the public to say 'This is what I want,'" Pollard says. "They have to demand sustainability in their houses."

DAVID JACOBS covers quality-of-life issues. E-mail him at djacobs@businessreport.com.



COURTESY STEELE POLLARD

IDEA HOME: Developer Steele Pollard envisions some snazzy bells and whistles in his idea home, which is called The Legare.