New Orleans - Two Creative Strategies for Rebuilding Post-Katrina
Part 1 - “Make It Right” in the Lower 9th Ward

Hurricane Katrina devastated New Orleans on August 29, 2005. $81B plus in damage. Over 1400 died, most of those in the Lower 9th Ward.

While attending the AIA Convention in NOLA, I took an AIA tour of the area.

Shocking to still see abandoned homes with “Katrina Tats” - the spray-painted code left on front walls by search teams in September to indicate if bodies were found, pets, etc. Some of those have holes chopped in roofs by searchers or, often, by residents who escaped the rising water by climbing into their attic and cutting through from the inside to perch on the rooftop awaiting rescue.

When the seawall along the Industrial Canal failed, a ‘tsunami’ 15 feet high swept through the Lower 9th washing homes from foundations and then pulverizing them. Nearly six years later work continues to rebuild the neighbourhoods.

You may recall from media reports that Brad Pitt came up with the “Make It Right” project, a carefully-conceived strategy to focus attention on the disaster and spur reconstruction.

But first, the US Army Corps of Engineers built a new wall along that section of the Industrial Canal, stronger and higher than the old one.
“Make It Right” sponsored an international design competition seeking contemporary designs that reflect the culture, character and identity of New Orleans. Architects from around the world responded.

Brian heard that many of the winning entries were at first rejected by residents. Many had flat roofs. And reminded residents far too much of the FEMA (Federal Emergency Management Agency) trailers they’d been living in since losing their homes.

The designs being built are stunning. Most are built on piers, some high enough that residents can park vans beneath them. The shape and form of the homes, and the clever use of colour and materials creates a crisp, contemporary take on some of the traditional architecture of New Orleans. Think, for example, of the shotgun houses and creole cottages you see everywhere in the Crescent City.
The US Green Building Council calls this “the largest, greenest neighbourhood of single family homes in America. We were told that all are being built to LEED Platinum, and most have PV panels on the roof.

Wayne, our local guide who volunteers at the Cabildo, and Architect Sarah Howell, the rep of Williams Architects, the local firm overseeing the construction, talked to us about some of the innovative building techniques they have developed.

There is no bedrock within practical reach in NOLA. So the homes are built on timber piles set 40 feet down. They rely on friction to hold the piles in place. They are capped
with concrete grade beams, above which concrete piers support the building. The first concrete piers were designed ‘rule of thumb’, but more precise engineering on later homes significantly reduced the size, and cost, of the piers.

They are also using innovative framing techniques with studs at 24” on centre instead of the US standard 16” and structural members exactly aligned. They follow carefully-prescribed nailing techniques and use metal ties at corners, headers and wall intersections. All of this results in the use of much less wood that normal, requires less labour, and significantly reduces on-site waste, while resulting in a home that is more energy-efficient and stronger structurally.

Sarah told us they are actually using and refining six different construction techniques on this site - the whole project is doubling as an R and D lab. Factory-made Structural Insulated Panels have rigid insulation sandwiched between either wood or steel. Various types of modular construction. SABS (Saebi Alternative Building System) uses concrete coated foam to create a strong, lightweight foundation. A really interesting system to storm-proof windows has metal fasteners permanently mounted at the perimeter of each opening. Premade covers are clipped on if a storm approaches. No nailing up plywood.
It’s very interesting to study the contrast with new homes in the Lower 9th that are not part of the Make It Right project.

Morphosis took a very unique approach when they designed the FLOAT House. Essentially, it’s built on a concrete ‘barge’. The concrete is set around piers (right photo below) which extend up through the home, the intention being that should the area flood, the house will float upward, then settle back down as the waters recede. All utility connections have been designed to break away, then be reconnected after the house is back in position.

Here are a few more of the Make It Right homes.
A final note: the budget for each home is $150,000 and we were told that they’re having problems meeting that target. They are getting support in the form of donated materials in some cases. Morphosis contributed to the construction of the FLOAT house. Canada’s Mike Holmes apparently filmed a documentary of his program building one of the homes and his company donated materials and labour. But as they refine building technology and techniques, they find new ways to economize on a project that is attracting worldwide acclaim.

You can get detailed information on Make It Right and each of the new homes on the Foundation’s website.

Part 2 of this series will focus on a fascinating rebuilding project in the Upper 9th, the Musicians’ Village.

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