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Dome Home

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Mark and Valerie's Sigler's futuristic-looking Dome of a Home has attracted public and media attention since it first emerged from the white sand dunes of Pensacola Beach in 2002.

That's when a huge, two-story-high balloon was inflated to create the form over which the dome's structure – steel-reinforced concrete – was built.

Mark Sigler documented the moment in a diary and noted: "In those 20 minutes, the beach's landscape was irrevocably changed. The dome became the new landmark and the subject of much discussion."

That discussion centered on whether the dome shape of the home really would live up to the Sigler's claims that it could withstand 300-mph winds. Those claims proved sound when Hurricane Ivan in 2004 wiped out or nearly destroyed 80 percent of the homes on Pensacola Beach.

The features that helped the dome home survive nearly unscathed from Ivan's destructive blows will be highlighted in March in a pilot for a new HGTV series, "Extreme Building."

"This pilot focuses on the extreme building techniques, either by architectural or structural engineers," said Jessica Conway, a producer with New York-based KPITV, which is producing the series for HGTV.



Conway said the series also will focus on the Sigler's newest endeavor: building a dome

dubbed the Skybird Lodge dome in the Montana wilderness, an area at risk for avalanches and huge forest fires.

“We will visit the Monolithic Dome company (in Texas) and show how you put one of these domes together from prepping the site to inflating the giant balloon,” Conway said.

In the case of the Sigler’s monolithic dome home, “We will focus on why it is so strong and easy to build and why it is the perfect structure for Florida. The house is built in a pretty rugged danger zone. And we’ll look at why people build in areas with huge hurricanes.”

The secret to why it is so strong is the shape, Mark Sigler said. “A curve is so much stronger than a flat surface,” he said.

When Ivan’s winds and storm surge whisked away many of the surrounding homes, the water and wind flowed around the Sigler’s dome. The stairs tore away and the in-ground swimming pool was buried in sand. But Mark and a news film crew, who rode out the storm through the night in the nearly sound-proof structure, reported feeling safe and unaware of the destruction going on outside until the sun rose the next morning.

“Jessica asked us, ‘What’s different about this house besides the look,’ ” Mark Sigler said. “The answer is, ‘Everything’.”

“We researched everything from the point of storm mitigation,” Mark Sigler said. From the balcony of the master suite, he pointed to the panoramic view of the turquoise water of the Gulf of Mexico lapping at the snow-white shore as to why he has worked so hard to build a home to withstand Mother Nature’s wrath.

This view is why the Siglers, who were newlyweds at the time, moved from Kansas City, Kan., to Pensacola Beach into a typical beach cottage more than a decade ago. But after 1995’s hurricanes Erin and Opal severely damaged their home, the Siglers embarked on five years of research that convinced them that the monolithic structure was the way to rebuild. They also hunted down materials that would help the home deflect many of the traditional problems that plague the structural integrity of coastal homes – mold, mildew, corrosion and termites. And hewing to their environmentally conscious lifestyle, the couple searched out products to make the home highly energy efficient, too.

Cork flooring, Georgia-Pacific Dens Sheetrock, Icynene spray insulation and SEAPILE pilings are all products that protect the house from the elements. The steel-reinforced, concrete dome not only creates a bomb shelter-like protection, but it also helps regulate the temperature inside, too.

Even though the home is a fortress, Conway said she and the camera man were impressed by its beauty while taping.

“Every where you look in the home is a beautiful shot,” she said. “It’s very different from everything around, but that made it special.”

The Siglers, who split their time between Pensacola Beach and a mountain cabin in Montana, maintain that domes should be the house of choice in areas prone to hurricanes, tornados and fires and even earthquakes.

“If a tree falls on one, it bounces off,” Valerie Sigler said. “The same principle that causes wind and water to go around the dome applies to avalanches. There’s no flat roof for the snow to pile up and crush the dome.”

A dome can be built with fireproof materials just as it can be built with hurricane-resistant materials.

“Our mission is to alleviate frivolous loss and suffering that goes along with the loss of a home in a natural disaster,” Mark Sigler said. “We are not builders. But we want to raise the bar so consumers will demand higher building standards. When consumers demand this, builders will build stronger homes.”

WANT TO KNOW MORE?

To learn more about dome structures visit: www.monolithic.com

To learn more about the Dome of a Home visit: www.domeofahome.com

WHAT MAKES THE DOME OF A HOME SO STRONG?

- Steel reinforced concrete shell.
- Hurricane-proof glass.
- 16 recycled plastic pilings that resist corrosion.
- Several layers of spray insulation.
- Balcony’s steel railing was replaced after Ivan with Pittsburgh corning glass block that is more resistant to sand blast damage from hurricane winds.

INSIDE FEATURES

- 3,400-square-feet.
- Four bedrooms.
- Cork flooring is antifungal and mildew, mold and fire resistant.
- Georgia Pacific’s DENS sheetrock is mildew and mold resistant.
- Geothermal heat pumps with individual Hydro-Air units in each room are energy efficient and act as dehumidifiers.
- Two private decks: One facing the Gulf and one facing Santa Rosa Sound.
- Jetted hot tub.
- Dry sauna.
- Steam shower with vertical spa.
- Holographic fireplace (ambiance with or without heat).
- Wet bar.
- Reverse osmosis water filtration.
- Queen bed loft in spa area.