LIGHTS, CAMERA, **REBUILD**

Following the worst devastation the Shore has seen in decades, the PBS series *This Old House* documents the repair or replacement of three Sandy-ravaged homes.

This Old House host Kevin O'Connor

BY **LAUREN PAYNE**

"We were headed to Seattle for a project when Sandy stuck her nose in the whole mix," says *This Old House* series host Kevin O'Connor. On the air since 1979, *This Old House* typically shoots two extended renovation projects per TV season, one in its home state of Massachusetts and one in another state. Putting Seattle on hold, the producers decided to focus on Sandy instead.

"Sandy created arguably the largest housing crisis in the U.S.," O'Connor says. "How do we *not* focus on that?"

O'Connor, 45, grew up in Maplewood and knows the Shore well. During his boyhood, his family rented a house on Long Beach Island each summer. For him, Sandy is personal. The issue, he says, is not whether to rebuild, but "how do we rebuild stronger, safer and smarter?" The series suggests numerous answers.

O'Connor and his crew have visited every few weeks to film progress on three homes, each in a different situation. In a departure from normal procedure, *This Old House* took an advisory role while local construction crews did the actual work. The show did not pay for repairs but arranged for the homeowners to receive significant discounts on labor and materials in return for the show giving the suppliers on-air credit.

Returning the Shore to any sense of normalcy will take years, O'Connor acknowledges. "This is a long, difficult and painful process," he says. Among the challenges are navigating local regulations, waiting for final federal flood maps and dealing with extraordinary costs.

"Billions of dollars will be spent," he says. "But what else are we going to do? Should we evacuate Venice? People can live near the water; the Jersey Shore will make their homes stronger."

***HOUSE* PROUD: In front of the Bay Head house featured in *This Old House*'s special post-Sandy series on the Shore. From left, architect Jack Purvis; Norm Abram of *This Old House*; Kevin d'Anunciaçao, contractor at Bay Head.**

Manasquan REPLACE

In September 2012—15 years after she bought her 1940s Cape-style home in Manasquan—Rita Gurry made the last mortgage payment. Jubilantly debt-free, Gurry, a nurse, turned her thoughts to retirement. Two months later, Sandy dashed those hopes, flooding the home with two-and-a-half feet of water.

"Every bit of furniture was ruined," she says. "I really couldn't comprehend fixing this thing. I made the decision then and there to put up a modular."

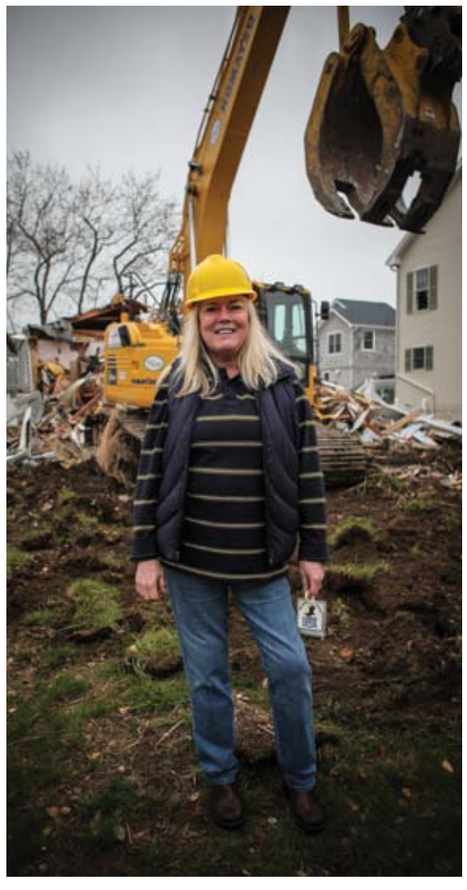
Through friends who had just signed a contract to build a modular home, Gurry knew that the process is simpler, faster and usually less costly than starting from scratch. Her friends put her in touch with their contractor, Anthony Zarrilli of Brick-based Zarrilli Homes, a company experienced in modular as well as from-scratch (or "stick built") construction.

Zarrilli was facing his own challenges. His office—located on the mainland just west of the Mantoloking Bridge—had been wiped out by Sandy. "We lost every file, every computer, every drawing—everything," he says. "The first couple of days it was like mourning. But then we realized we had to try to keep people moving forward."

Zarrilli took Gurry on. "Modulars," he says, "are built much better" than people unfamiliar with them might think. Put together and weather-sealed inside a factory, their frames and interiors are never subjected to precipitation, and they must pass a rigorous federal inspection before they are delivered to the home site.

Aware of the Shore's vulnerability to storms, Zarrelli for years has set all his homes on pilings a minimum of two feet higher than required by current code. "After Sandy, we went out and did a site visit to all of our homes," he says. "We've built dozens everywhere from Cape May to Union County, and we did not lose a house."

Gurry and Zarrelli agreed on a layout giving her the same four bedrooms, two baths and about 2,000 square feet as her ruined house. "I wanted a front porch and a back deck and a master bedroom and bath on the first floor. That was my only wish list," she says.



CONSTRUCTION PHOTOS: COURTESY OF KEVIN O'CONNOR

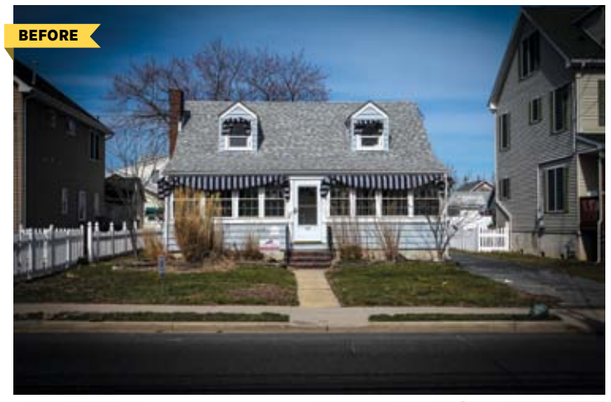


PHOTO: (TOP RIGHT)— COURTESY OF JACK PURVIS

FRESH FROM THE FACTORY: Rita Gurry, a nurse, left, had just paid off the mortgage on her house, top, and was beginning to dream of retirement when Sandy rained on her parade. She decided to start over. Instead of building from scratch, she ordered a modular house, above, which was delivered in sections and assembled on site.

Work began on April 15 with the demolition. "That first boom hit the house, it was like someone knocked the wind out of my sails," she says. "Then reality set in. There was no turning back." In about an hour, the house was torn apart and loaded into a dumpster.

The next step, undertaken in early May, was driving the pilings into the ground that would support the modular home. "Pile driving used to take forever," says Richard Trethewey, plumbing and heating expert for *This Old House*. The old way resembled hammering a heavy nail into hard wood, except on a gargantuan scale.

But Zarrelli was using a relatively new technology—a high-powered apparatus mounted on a backhoe that intensely vibrates the sharp-edged pilings, driving them deep into the ground literally in seconds. For avid *This Old House* viewers, Trethewey says, "It's going to be fabulous television."

June 4, Gurry gaped in wonder as her new house arrived in two sections on flatbed trucks. She watched the whole process. Lifting the sections off the flatbeds with a crane, placing them on the pilings and securing them together took a total of four hours. Finishing touches—connecting plumbing, electricity—took up the next two months. At press time, Gurry was expecting to move in early in September.

RESOURCES:
Architect:
Anthony Zarrilli
Zarrilli Homes
Brick
zarrillihomes.com
732-262-4849

The whole project cost her about $310,000—somewhat more than she expected. According to Zarrilli, "Typically, modulars come out 13 to 18 percent less expensive [than stick built]. And the entire structure is low maintenance."

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Point Pleasant
RAISE

In the almost nine years Carlos and Maria Santos have owned their 59-year-old house on a lagoon off Barnegat Bay in Point Pleasant, it has come through storms unscathed. "Before we purchased the property," Carlos says, "we asked around, and no one in this area experienced any kind of flooding."

All that changed last October. While Maria and their three children sought shelter at the high school, Carlos rode out Sandy in the house, where the family lives year round. Soon the ground floor was under water. Next morning, Carlos paddled to safety in his kayak.

"The house was sitting too low,' he says. "Before we even heard about [new] flood level requirements, we decided to see if we could lift it."

"They made the decision to lift before FEMA and the town knew how high they should go," says *This Old House* host O'Connor. "It was like ping-pong. They were told they had to go up nine feet, then four feet, then 13."

Beyond that lay a technical problem. Because of the way the house was situated, conventional telephone pole pilings wouldn't work. "There was no room to move the house out of the way," says O'Connor. "They had to insert the pilings under the house while it was in the way."

A fairly new technology called helical pilings provided the solution. Helicals look like huge steel screws and are literally screwed into the ground. They come in lengths as short as four feet, making them easier to install in tight quarters.

The Santos house sits on sand, which sits on fill. "Soil testing proved that the piles had to go deep, a minimum of 20 to 25 feet," says O'Connor. Engineers determined that to provide adequate support, 51 helicals were needed. To get the installation equipment in place, the house had to be lifted by hydraulic jacks, a process that was done a foot at a time over three days. Carlos is amazed how gentle it was. "We left all the glasses and china in the cabinets," he says. "Nothing was broken." After the helical pilings were installed, the house was lowered onto them at its new elevation, nine feet higher than before.

What has been the biggest challenge? The insurance company, Carlos answers at once. "We received about half of what we needed. It's just not right. It doesn't help the recovery process at all."

Luckily, Carlos's contractor is his father. "He is the only contractor I know," he says, "who would wait for payment." ■

ONLY HIGH WILL STAY DRY: Maria and Carlos Santos, left, are adjusting to the Shore's new normal—houses must be elevated. Right, their home as it was. Left, the home lifted by hydraulic jacks so helical pilings could be installed underneath. Lower right, the new elevation.

RESOURCES

General contractor and mason:
Carlos Santos Sr., Santos Construction Co., Newark
973-699-4760.

Engineers, architects and surveyors:
KBA Engineering Services, Manasquan, 732-722-8555
R.C. Associates Consulting, Inc. Manasquan, 732-528-0141
Daniel Lynch, R.A., N.C.A.R.B. BLDG Architecture, LLC, Brielle
732-223-1135
Ron W. Post Surveying, Toms River, 732-255-9050

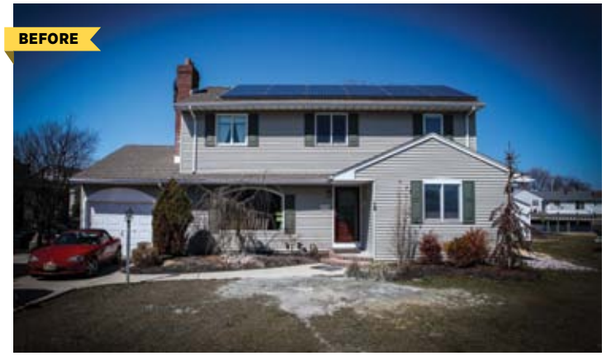
Designer:
Tracy Pearce Design
Point Pleasant, 732-202-5588

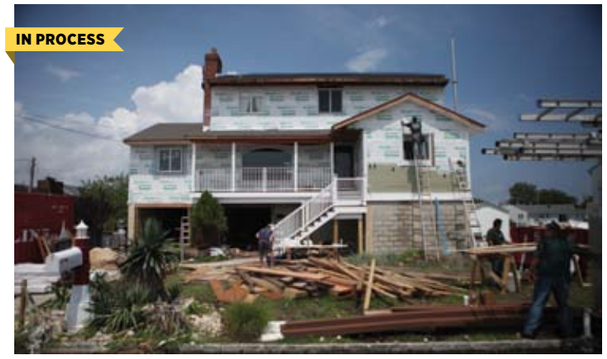
House lifting and piles:
Ducky Johnson Home Elevations Florida, 888-HOME-LIFT
South Jersey Helical Piers
Pleasantville, 609-369-3634

Plumbing, electric & HVAC:
Ron Eith Plumbing & Heating, Howell, 732-840-2222
RDS Electric, Union
908-591-0399
Precise Air Systems Inc., Roselle
973-964-7070

Interior building and products:
Fast-2-Fast Sheetrock and Painting, Brick, 848-448-0860
Clean Cut Tile and Design
Howell, 732-616-5365
Nature's Beauty Marble & Granite, Scotch Plains, 908-233-5300
Precision Woodworks Kitchen Cabinets, Union, 908-964-6314
Cabinet Restoration, Paint Tek Quality Painting, Dunellen
732-968-4200
Wonderful Flooring Corp.
Newark, 973-578-8100

Exterior building and products:
OM Designs Decking and Railings
Neptune, 732-245-7844
Legacy Construction Siding
Monmouth Junction 732-329-0600





Bay Head
RESTORE

Christine and Jed Laird were home in Mendham with their daughters, Emily, 12, and Ally, 11, when Sandy tore into their circa 1880 summer cottage in Bay Head, a block and a half from the beach. Two days later, after the five feet of water had receded from the living room, they checked out the damage and decided to restore the residence, one of the oldest in the mile-square town.

Apart from adding a powder room and breakfast nook after they bought the cottage in 1979, the couple had always treasured the idea that "as best we know, it was the same as it was in 1880," says Jed. They also had sentimental reasons to restore. "We have 30 years of memories here. We don't want to start over."

Finding a like-minded architect was not easy. "Most everyone suggested we start over," says Chris. "We interviewed a bunch of architects. If they told us we should rip the house down, we weren't going to hire them."

Finally they found Allenwood architect Jack Purvis, president of the New Jersey Chapter of the American Institute of Architects. An expert on restoration, Purvis is also adept at navigating FEMA's complicated process of revising and reissuing flood maps and the new rules that accompany them.

"One of the real challenges of rebuilding," says *This Old House* host O'Connor, "was the changing FEMA regulations."

After the Lairds' contractors, Phil Martin and Kevin d'Anunciaçao, gutted the ruined first-floor interior, things began looking up. Literally.

"This is a unique situation," explains Purvis. "The first floor had fallen apart. The structure was exposed to water multiple times. It had to be raised to restore it, but we weren't sure how high."

While waiting for the revised flood maps and regulations, the team decided to do an initial lift of four feet, enough to repair and restore the first floor. "We put an I-beam right through the house, driven from the front window to the back yard," Purvis says. "*This Old House* had never seen a house lifted like this before."

When new flood maps were issued for the Lairds' area last June, they were relieved to see that their location had been reduced, in FEMA's complicated rating system, from a V zone (where strong wave velocity is considered likely) to a lower risk A-8 zone, with less stringent building requirements and a required minimum elevation of eight feet above sea level.

The Lairds decided to go slightly beyond the minimum. In early spring, they had the cottage raised an additional six feet, for a total elevation of 10 feet. Their neighbors gathered around to watch. Afterwards, impassioned discussions ensued about the interminable process all Sandy-affected homeowners are trudging through. There are mountains of paperwork to file, dozens of websites to research, various grants to apply for and scores of calls to make to town personnel, insurance agents and experts of all kinds.

"Our biggest challenge is the feeling that this is all out of our control," says Chris. "It's been tough navigating FEMA

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RESOURCES:

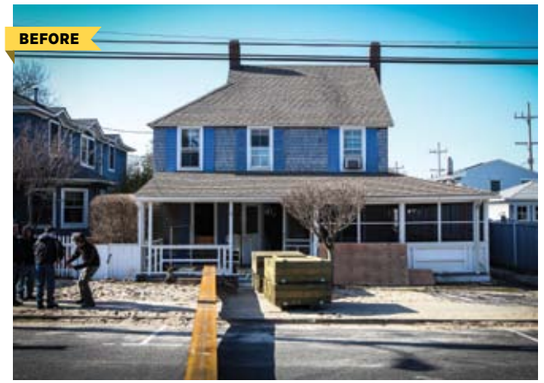
Architect:
Jack Purvis, AIA. Jack Purvis Architects, Allenwood, purvis-architect.com, 732-292-9300

Builder:
Phil Martin and Kevin d'Anunciaçao, Philip Martin Home Improvements & Renovations, Brick, 732-262-8696

HVAC systems:
Gary Puco, Atlantic Heating & Cooling, Lakewood, 732-367-8534, atlantichvacstore.com

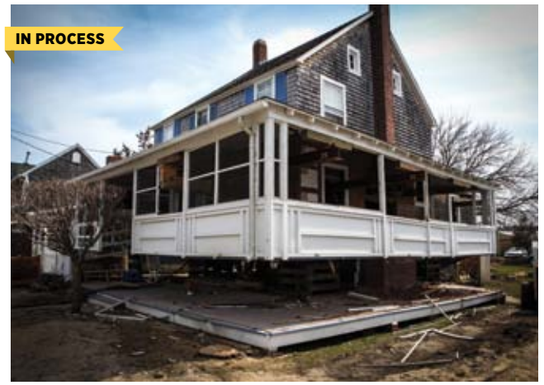
Interior designer:
Jules Duffy Designs, Madison and Bay Head, Julesduffy.com
973-845-2810

SAVING A PIECE OF HISTORY: Jed and Christine Laird and their daughters Ally, left, and Emily, didn't want to abandon their circa 1880 cottage after Sandy flooded their street, far right. So they had its first floor repaired and restored and set it down higher than it was before.



PHOTOS: POINT PLEASANT —COURTESY OF KEVIN O'CONNOR

PHOTOS: BAY HEAD—COURTESY OF JACK PURVIS; FLOOD—COURTESY OF RAY IWANESKY



MANASQUAN

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Well before Sandy changed everything, FEMA was at work on new flood plain maps for the Shore. These were released on schedule last December, and as expected they came with new rules changing the minimum heights that houses would have to be raised above sea level. But being based on pre-Sandy data, the new rulings were outdated the day they were issued. FEMA went back to work and released updated maps and guidelines in June of this year.

For homeowners and contractors wanting to move forward, the result was months of uncertainty. Zarrilli and Gurry decided not to wait. He installed the pilings so that her new house would likely exceed whatever height requirements FEMA came back with. Her front door now stands 13 feet above sea level. Between the bottom of the house and the ground, says *This Old House*'s Trethewey, "It's a crawl space with open ventilation, breakaway walls and storage."

Visitors have quite a few stairs to climb, but when they cross the threshold, Gurry says, "Everyone who comes in my door now can't believe this is a modular home."

"Modular is such a good solution," says Trethewey. "Quick is one thing, but I now have a completely different perception. It's solid, solid construction. This house will stay level for years and years."

"People say it's a hundred-year storm, but I think it's going to happen again," says Gurry. "You get a nosebleed going up into my house now, but I don't ever want to go through this again." ■

This Old House will release the eight episodes of *Jersey Shore Rebuilds* beginning Thursday, October 3. Check listings for local air dates. Behind-the-scenes video, a project overview and a photo gallery can be found at thisoldhouse.com. Follow host Kevin O'Connor's blog at oldhousemyhouse.thisoldhouse.com.

BAY HEAD

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and insurance. As much as I hate the fact that it's still not done, we've learned it's important to take your time."

"This is the future," says Purvis. "This is what the Shore is going to look like. All new construction from this point forward will be required to be at these raised elevations."

"We admire the Lairds' commitment to restoring," says *This Old House* senior series producer Deborah Hood. "They may have chosen a path that is more time-consuming and more costly, but as old-house people ourselves, we certainly understand that decision, and Bay Head will be all the better for it." ■