

Storm-Resistant Measures Saved One Family from a \$100,000 Day

Monmouth County, New Jersey – Ken Murphy, a resident of the Borough of Little Silver, New Jersey, did not expect his neighborhood to flood, but it did. Hurricane Sandy, downgraded to a tropical cyclone, left an enormous footprint of turmoil in its tracks along much of New Jersey’s coast in late October 2012.

Instead of being sprinkled with seasonal and holiday décor, lawns in Little Silver were filled with uprooted trees and piles of debris that contained ruined family heirlooms—but not for Murphy. By adding two courses of block to his home during construction, he and his wife escaped Sandy’s wrath with minor damage.

“That made a difference,” Murphy said as he thought about how his home was built 30 years ago. “I didn’t get any water in my first floor.” For many nearby property owners, the surge saturated everything up to their first floor ceilings.

Looking back, the land where Murphy’s home sits was once a very low-lying area. He had the ground elevated by adding fill dirt. Murphy’s brick mason had planned to build the home to the required elevation but Murphy saw the opportunity to add additional blocks to the foundation, which increased the home’s elevation about one and a half feet.

As Little Silver residents prepared for Sandy’s arrival, many of them moved their cars to higher ground, boarded windows, and moved keepsakes to higher areas. Residents expected to get some street flooding since Parker’s Creek, which feeds into the Shrewsbury River, runs through the area; however, they never expected the amount of surge they received.

Murphy periodically monitored the water level outside as Sandy made landfall. The rain poured relentlessly for a day and a half and the water rose quickly. When Murphy’s wife warned him of flooding in the garage, he expected the worse.

Sandy brought a high velocity surge that pushed through Murphy’s neighborhood and nearly 5,000 gallons of water created a pool in his crawlspace. The water passed in and out, allowing the hydrostatic pressure to equalize, which reduced the push and pull of the water on Murphy’s home.

“I looked to my wife and said, ‘Do you know what today is?—it’s going to be a \$100,000 day’,” Murphy said, thinking of the huge amount of damage he anticipated Sandy to cause him.

During the construction of his home, Murphy placed his furnace and water heater in the garage. Later, when he had to replace the furnace while converting from oil to gas, he decided to elevate them. His furnace and water heater sat high above the flood water that settled in the garage. He was saved from an expensive replacement bill.

Having lost his outside air conditioning unit, Murphy stated, “I was very lucky.” A few of his close neighbors sustained major damage to the first floor and lost their air conditioning units as well.

When asked about elevating his AC unit, Murphy said, “I’m definitely going to raise it up!”



Administered by the Federal Emergency Management Agency (FEMA), the National Flood Insurance Program (NFIP) requires specific building criteria for communities to adopt and regulate in Special Flood Hazard Areas (SFHA). Participating communities that adopt these regulations stand to provide safer, stronger and more disaster-resistant living conditions for their residents.

The NFIP requires any structures with a crawlspace in a SFHA to have proper openings that allow water to pass through freely. Property owners should check with their local building code officials to obtain proper permits prior to building or renovating any structures.

FEMA has developed many techniques to guide homeowners and contractors on proper building measures and these methods allow for the home to better withstand future storms. Property owners should have their structures evaluated before any repair or improvement work is done in order to ensure the projects will be most effective during a storm.

To learn more on building codes or proper permits, contact your local officials and visit <http://www.fema.gov/building-science/building-code-resources>.

To find out more information on NFIP, SFHA, or crawlspaces, visit <http://www.floodsmart.gov>.

For information about coastal construction design, visit <http://www.fema.gov/residential-coastal-construction> and <http://www.region2coastal.com/Sandy>.

Activity/Project Location

Geographical Area:	Single County in a State
FEMA Region:	Region II
State:	New Jersey
County:	Monmouth County
City/Community:	Little Silver

Key Activity/Project Information

Sector:	Private
Hazard Type:	Severe Storm; Flooding; Hurricane/Tropical Storm; Coastal Storm
Activity/Project Type:	Elevation, Structural; Utility Protective Measures; Elevation, Utilities
Structure Type:	Masonry, Un-reinforced/Plain
Activity/Project Start Date:	01/1977
Activity/Project End Date:	01/1978
Funding Source:	Homeowner



Activity/Project Economic Analysis

Cost: Amount Not Available

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster?	No
Value Tested By Disaster?	Yes
Tested By Federal Disaster #:	4086 , 10/30/2012
Repetitive Loss Property?	No

Reference URLs

Reference URL 1:	http://www.fema.gov/building-science/building-code-resources
Reference URL 2:	http://www.region2coastal.com/sandy

Activity/Project Contact Information

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