

Texas Home Elevation Ends Cycle of Repetitive Flooding

WEBSTER, TX – Hurricane Harvey, a Category 4 hurricane, brought torrential downpours and days of flooding that devastated the small town of Webster, located southeast of Houston in Harris County.

The 2017 hurricane submerged the majority of homes in their neighborhood, but John and Mary Sullivan's home was an exception. Elevation saved their home.

After Harvey's landfall, the Sullivans were amazed by the severity of the flooding. "The water rose approximately 12-13 feet in five hours," said Mary.

When asked if the home had flooded before, "Oh my goodness did it ever!" Mary exclaimed. "We bought the house in 2004 and between that time and now the house flooded at least a dozen times. There was even an occasion when the house flooded two times in one week."



Figure 1 - Mary Sullivan took a photo of the house from the rescue boat as they were leaving the property on the day of the flood. *Photo by Mary Sullivan*

In 2008, during Hurricane Ike, the floodwaters rose 6 feet. It was after this major flooding the Sullivans decided to mitigate. They contacted city officials to inquire about their severe repetitive losses (SRL) and attended a community meeting to learn more about hazard mitigation grants. In October 2014, they received notification of grant approval. The Sullivans were part of a sub-grant program that elevated 16 repetitive-loss homes in the community.

The Federal Emergency Management Agency's (FEMA) Hazard Mitigation Assistance (HMA) program considered the structure a priority due to its history of SRL. The program, administered by the state, paid 100 percent of the elevation project, a total cost of \$329,000.

The criteria for SRL program funding, which pays 100 percent of the cost, was met because the Sullivans had flood insurance through the National Flood Insurance Program (NFIP). At least four NFIP claim payments against the policy (including building and contents) were over \$5,000 each and the cumulative amount of claims payments exceeded \$20,000.

FEMA's HMA programs present a critical opportunity to reduce the risk to individuals and property from natural hazards, while simultaneously reducing reliance on federal disaster funds.

The Sullivans finished the project in 2015, elevating the home 12.5 feet, 1.5 feet above the Base Flood Elevation (BFE). The BFE is the computed elevation to which floodwater is anticipated to rise during the high-risk flood event. It is a regulatory requirement for elevation for flood proofing of structures. During the elevation project construction, they were out of their home for approximately 60 days.

Not only did the elevation project mitigate their future losses, but it also proved to be a financial cost savings. In prior years, the Sullivans paid more than \$4,400 in flood insurance annually. After the project completion, the premium reduced dramatically to \$464 per year, a cost savings of approximately 90 percent. This is a winning situation for the couple because they can still maintain their flood insurance policy even though their home is now elevated and survived Harvey's floodwaters.



Since flood insurance was consistently paying for damages due to past claims filed by the Sullivans during their years of repetitive losses, the elevation was a win not only for them, but for NFIP, and by extension, taxpayers.

The Sullivan's' 3,500 square-foot home sits on a quiet street adjacent to Clear Creek that overflowed its banks during Harvey. When it appeared that flooding was imminent, the Sullivans moved important documents and of personal belongings to a higher floor. This proved to be a good idea since the ground floor used for parking and a patio was filled with mud and debris after the storm. "The cleanup will not be nearly as bad because of a breakaway wall and concrete used instead of plyboard underneath," said Mary.

The couple reflected on their experience during Harvey and recalled sitting on a rescue boat, looking back at their home, and feeling proud that it survived. The mitigation project worked as designed. Although the bottom floor was inundated with water, their valuables were safe on the second floor. When they finally returned home, only minor clean up and simple repairs were required.

Protecting what matters brought peace of mind to the Sullivans, not only due to the benefits of elevating their home, but also from the fact that they continue to maintain their NFIP-backed flood insurance policy on their most valuable asset.

Mary reflected, "If the structure was still on the ground we might not have made it out safely."

For more information visit: www.fema.gov/flood-mitigation-assistance-grant-program



Figure 2 - A parking space and patio were created underneath the home because of the elevation project. *Photo by Mary Sullivan*