

## Preserving and Protecting a Community Treasure – the Historic Rosenberg Library in Galveston, Texas

The first floor of the historic Rosenberg Library located in Galveston, Texas, a barrier island 40 miles south of Houston, was severely damaged by Hurricane Ike storm surge. Thanks to flood mitigation funds from FEMA, flood insurance reimbursements, the state of Texas and private donations, it is now fully restored and protected from future storms.

FEMA funding covered repairs to flooring, walls, and other interior components, as well as emergency protective measures taken by the Library before, during, and after the storm to protect the building and its contents from further damage. These efforts included relocating all of the buildings systems (electrical distribution system, telephone system, HVAC, Internet D-mark, etc.) that could be moved to the upper floors of the building.

As part of the renovations, passive automatic flood barriers, aquarium glass, and other flood control measures were installed to protect the facility from a 500-year flood event and allow it to continue its service to the Galveston community. A critical component of the renovation was preserving the historic building's architectural beauty. Floodproofing measures were selected to blend with architectural features. The flood gates were made virtually invisible, hidden below vestibule carpeting and the standard aluminum wiper walls were replaced by the polished concrete walls, stained to match the historic building interior. Hurricane resistant glass was incorporated into the building walls.

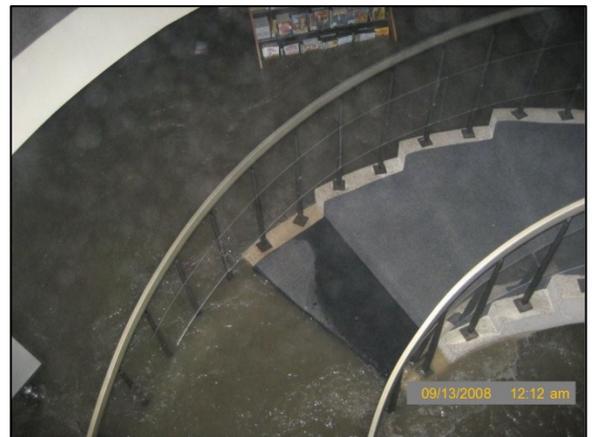
"Ike was a huge disaster for our library, but it also turned out to be an opportunity to make significant improvements to the building," says John Augelli, the Library's executive director.

On September 13, 2008, the Rosenberg Library was inundated with flood waters during Hurricane Ike, the most destructive hurricane to hit the island since the Great Storm of 1900. The strong Category 2 storm made direct landfall in Galveston, bringing with it 110 mph sustained winds, over 18 inches of rain, and a storm surge that reached 20 feet deep in some areas. The first floor of the Library was under as much as 6 feet of floodwater at the height of Ike's storm surge.

Fortunately, the building, originally dedicated on June 22, 1904, did not sustain any structural damage to the upper floors but the destruction of critical systems and equipment located on the first floor was extensive, including the loss of the major electrical panels, all communications systems, fire and smoke detection, and building security systems.



Storm surge from Hurricane Ike inundated library first floor.



View of first floor flooding from the 2nd floor.



Devastation left after floodwaters receded.

Flood mitigation included elevation of critical equipment and dry floodproofing the building with the use of two passive floodgates at lower level entrances, special waterproof aquarium glass and a waterproof membrane around the building perimeter. These floodproofing measures completed in 2013 enabled the Rosenberg Library, the oldest public library in Texas in continuous operation, to continue to serve the community of Galveston.

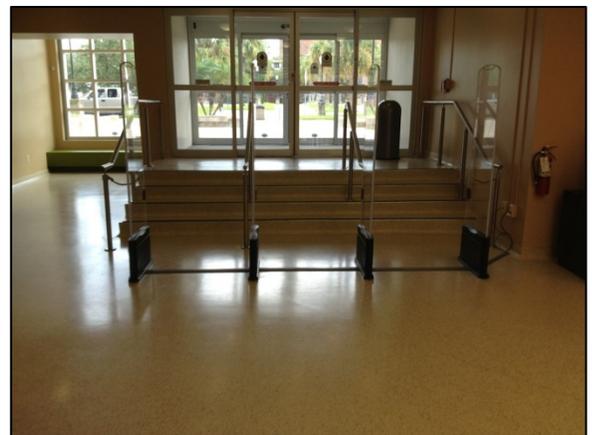
The Library is now offering the Galveston community the highest standards in children's library services in a beautiful new setting, as well as state-of-the-art technology for self-check and intelligent materials return handling.

The Rosenberg Library also houses the Rosenberg Library Museum and the Galveston and Texas History Center, preserving and organizing archival materials that document the history of Galveston and the early settlement of Texas. According to the Texas State Historical Survey, the Rosenberg Library is "one of the major repositories of original documents and artifacts related to Texas history". The holdings of the library's archives and museum, which number in excess of 4,000,000 items, include such diverse items as letters from Stephen F. Austin in addition to Sam Houston's dueling pistols. The vast collections of the archives and museum department include presidential correspondence, historical maps, historical papers of key figures in Texas history, photographs, oral histories, early Texas newspapers, maritime equipment, flags, historical silver, antique weapons, historical artifacts, native American artifacts, rare books, architectural drawings, art works of nationally acclaimed painters and sculptors, and firearms. The museum and archives attract visitors from around the state of Texas and the nation.

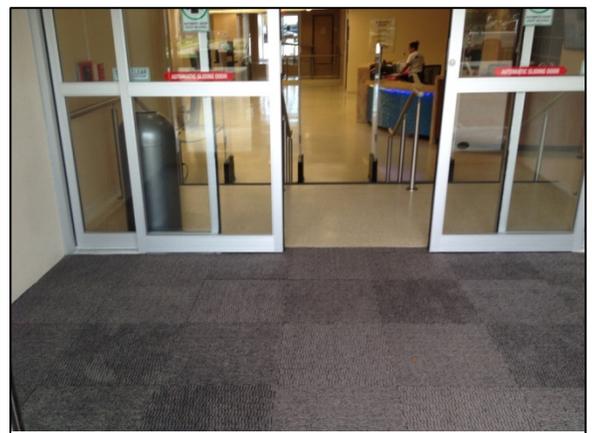
Flood photos courtesy of Rosenberg Library. All others courtesy of FloodBreak.



Rosenberg Library after FEMA funded mitigation.



The first floor is protected by hurricane glass windows and passive flood barriers underneath carpet in the entrance vestibules.



A 7 foot tall passive flood barrier beneath the vestibule carpeting protects the library to the 500 year elevation. The barrier will deploy automatically without human intervention or power to prevent water inundation.