



Santa Rosa Island Public Works Building

Full Mitigation Best Practice Story

Escambia County, Florida



Santa Rosa Island, FL - Santa Rosa Island has experienced serious repetitive flooding and wind damage as a result of numerous storms over the past several years, including Tropical Storm Alberto in 1994 and Hurricanes Erin and Opal in 1995. Hurricane Erin completely demolished the original Santa Rosa Island Authority (SRIA) Public Works building located on the sound. The building was a concrete, slab-on-grade structure built in the early 1950s.

The SRIA has one of the more progressive hurricane-resistant building programs in the United States. SRIA has adopted prescriptive requirements for coastal construction that include the requirement that all new and substantially improved residential buildings across the entire island be elevated on pile foundations.

This project involved rebuilding the original structure using mitigation funds under Section 406 of the Disaster Protection Bill. The new building was raised 4 feet above the BFE, (referenced to the National Geodetic Vertical Datum, 1929 FEMA-FIRM). The building was placed on a foundation with concrete block piers. The lower area of the building was converted to storage.

Although Hurricane Georges (1998) did not cause significant flooding at Santa Rosa Island, there is the potential for inundation with high velocity water and wave action. The flood depth for this area from Hurricane Georges was approximately 9 feet.

The original public works building was built at a grade elevation of 4 feet and had an approximate total structure and contents value of \$185,000. Based on this information, if the building had not been elevated, the damage from Hurricane Georges would have been 29 percent or \$53,650.

This project has resulted in a building that now has a significantly lower risk of future damage from flooding. All files, computers and critical contents of the public works building have been located above the Base Flood Elevation (BFE) in the new building. Since the public works building is a critical facility, this is an example of an important success.

Activity/Project Location

Geographical Area: **Single County (County-wide)**

FEMA Region: **Region IV**

State: **Florida**

County: **Escambia County**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Hurricane/Tropical Storm**
Activity/Project Type: **Building Codes; Elevation, Structural**
Activity/Project Start Date: **03/1996**
Activity/Project End Date: **10/1996**
Funding Source: **Community Rating System (CRS); Other FEMA funds/ US Department of Homeland Security**
Funding Recipient: **Local Government**
Funding Recipient Name: **SRIA Public Works Building**

Activity/Project Economic Analysis

Cost: **\$250,000.00 (Estimated)**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster? **Yes**

Federal Disaster #: **1074 , 10/27/1995**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **1998**

Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.nhc.noaa.gov/>

Reference URL 2: <http://floridadisaster.org/>

Main Points

- Adopted prescriptive requirements for coastal construction that include the requirement that all new and substantially improved residential buildings across the entire island be elevated on pile foundations.
- The building was placed on a foundation with concrete block piers. The lower area of the building was converted to storage.
- Although Hurricane Georges (1998) did not cause significant flooding at Santa Rosa Island, there is the potential for inundation with high velocity water and wave action.

