GARRISON FLOOD CONTROL

CASE STUDY

Hammerhead™
High End Homeowner | Fort Myers, FL

HAMMERHEAD ALUMINUM FLOOD PLANKS

The Client:
A high end homeowner located in Florida reached out to our team at Garrison Flood Control looking for a durable flood mitigation system that he could deploy on his property in the event of flooding. The client's home is nestled on the canal in Fort Myers where tidal surges related to hurricanes are likely and flooding events in general are a common occurrence.

Garrison's Goals:
The specific goals our team had in mind for this project were to protect all of the home's ground floor entrances and doorways, including the client's garage, front door, and back sliders. Threatening storm surges are common with severe weather and we needed to provide a system that could handle heavy winds, possible debris, and a 4-5ft storm surge.

The Challenge:
In September of 2022, Hurricane Ian directly impacted a significant portion of the Fort Myers area. Hurricane Ian made landfall in Fort Myers as a Category 4 hurricane. The storm brought with it 150 mph winds, a 15-foot storm surge, and heavy rainfall. The damage was widespread, with thousands of homes and businesses destroyed or damaged. The total cost of the damage from Hurricane Ian is estimated to be over $100 billion, making it the third costliest hurricane on record in the United States (National Hurricane Service).

The flood damage that occurred from Hurricane Ian resulted in the client's displacement from his home for over 8 months, while his contractor completed renovations and repairs. The client didn't want to have to go through the pain and dislocation that comes with loss of use of one's home and decided to put in flood protection to prevent future flood damage and future losses.

Throughout his search for flood protection, the homeowner investigated the possibility of finding flood barriers that could be easily deployed for his entryways as well as easily removable whenever they are not needed. The critical factor in finding the ideal solution was a system that offered heavy duty protection against potential future storm surges and flood events.

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Solution:

Based on the homeowners protection needs, Garrison Flood Control provided the Hammerhead™ Aluminum Flood Plank system. Hammerhead™ is a robust flood protection system that utilizes durable 6063 T-5 aluminum flood logs that fit easily into U-Channel posts. A neoprene seal between planks and within the U-channel prevents leakage. Planks are tightened down within the U-channel using a series of stainless steel bolts. Once deployed the Hammerhead™ provides a durable flood wall that protects against debris, water, and hurricane force winds. Because planks are approximately 2 lbs per linear foot, even longer sections can be handled and deployed by an individual homeowner.

Each entryway was measured by the client's contractor and Garrison provided custom sized flood logs to fit the exact dimensions of the home's various openings.

The local contractor, a high-end builder in the Ft. Meyers area, who previously worked on the home's renovations and original construction, installed the Hammerhead™ Flood Plank system across all of the openings that were susceptible to potential flooding. The back door entryway, due to its longer length, required a center post to provide additional stability and strength against the expected hydrostatic pressures from incoming storm surges and this post was made temporary, using drop in anchor bolts.

Summary:

A high-end homeowner in Fort Myers, Florida, was looking for a durable flood barrier system to protect his property from flooding during hurricane season. The homeowner's home is located on a canal, and flooding is a common occurrence in the area.

In September 2022, Hurricane Ian made landfall in Fort Myers as a Category 4 hurricane. The storm caused widespread damage, including flooding which displaced the homeowner for several months. Once he completed significant renovations on his home, he decided to outfit the home with a Hammerhead™ flood protection system to mitigate future damage. The homeowner wanted a system that was easy to deploy and remove, but also offered heavy-duty protection against potential future storm surges and flood events.

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Garrison Flood Control provided the homeowner with the Hammerhead™ Aluminum Flood Plank system. The utilization of aluminum planks that could be installed and removed with ease while simultaneously offering durable flood protection solved the various homeowner requirements.

Our team provided custom cut Hammerhead™ flood barriers to fit the exact dimensions of each entryway. The local contractor who previously worked on the home's renovations installed the Hammerhead™ flood log system across each of the ground floor entryways that were vulnerable to potential flooding.

The installation of the Hammerhead™ Flood Plank system has given the homeowner peace of mind knowing that his property is better protected from flooding. The system is a convenient solution and provides a high level of protection, making it an ideal solution for homeowners in flood-prone areas.

Takeaways:

- Hammerhead™ flood logs are made of durable 6063 T-5 Aluminum that provide many benefits over other solutions.
  - Strength: 6063-T5 aluminum has a high tensile strength, which means it can withstand a lot of force without breaking. This makes it ideal for use to defend against the force of common storm surges.
  - Lightweight: 6063-T5 aluminum is much lighter than steel, which makes it easier to transport and install. The aluminum flood planks take up minimal space while providing a quick and easy deployment process.
  - Corrosion resistance: 6063-T5 aluminum is resistant to corrosion, because floodwater can be contaminated with salt, mud, and other corrosive materials, but 6063-T5 aluminum will not corrode in these conditions.
- Removal of planks and center posts allows entryways to remain accessible when not in use.
- Hammerhead™ is capable of fitting a variety of entryways with different lengths, heights and threshold types.
- Center posts can be installed for longer barrier runs, to handle the hydrostatic pressures associated with oncoming storm surges.
- View Hammerhead FEA Testing.

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