



Safe Building Practice Protects Investment

Full Mitigation Best Practice Story

Baxter County, Arkansas

Baxter County, AR – Entrepreneurs respond differently to the question, “What is success?” The term is not so easily define. Steve and Pam McCumber, an entrepreneurial couple in Norfolk, Arkansas defines the term from personal experience. Success for them is the mitigation efforts that continue to keep them afloat amid the perils of bad weather which seem to hover over the State of Arkansas.



“I bought some books and read first because I had never built anything before,” said Steve McCumber, a retired jet engine parts manufacturer. “A FEMA associate, here in Arkansas, sent me some books and I went on FEMA’s website and got some more books and read about flood zones, flood plains and anchoring systems.”

In 1997, the McCumbers purchased an eight acre tract of land on the Norfolk River. A project spawned out of boredom, they decided to build a resort, Norfolk River Resort. They knew this would mean taking steps to secure their investment.

“Down here we are concerned about high winds and flooding,” said McCumber. Norfolk is a small town. Nobody wanted to tackle the project with all of the measures I wanted to employ. So I became the general contractor. I designed everything and supervised the project.”

Research data reported the Base Flood Elevation (BFE) to be 397 feet. The ground level of each cabin is at 401 feet, four feet above the BFE. Each 1,800 square feet cabin rests on 18 concrete pilings. The pilings are 14 inches in diameter. They are embedded seven feet below the surface and eight feet above the ground. Each rests on a two feet by two feet concrete footer. The area beneath the cabins is used for parking.

McCumber fortified the cabins for high wind events. All floor joists have hurricane clips. All trusses have hurricane straps. There is connectivity from the roof to the floor. The hurricane straps are nailed to the 2x4’s which are anchored to the 2x12’s and the 2x12’s are anchored to the concrete pilings. He also secured the outdoor furniture and equipment. Benches and gas grills are anchored with hurricane straps nailed to 2x4’s chains and smaller barbecue pits are anchored in concrete.

In March 2008, flood waters from the Norfolk River which feeds into the White River caused extensive damage in Norfolk and surrounding towns. The Norfolk River Resort remained unscathed.

“Two resorts in a neighboring area got wiped out. Their boat docks washed away,” said McCumber. “Another resort, 12 miles up, got water in their cabins.”

Continued McCumber, “Because they haven’t been affected by a flood, people get complacent and they think they are going to be okay. So they don’t build above the flood plain and they don’t see the need in purchasing flood insurance. They call this area a floodplain for a reason—it floods! They don’t call something upon a hilltop, a flood zone. Another flood or hurricane might not come in my lifetime or it just might come tomorrow. So you have to prepare for it and you have to buy insurance.”

The McCumbers’ business venture began ten years ago with only two cabins. As of 2008 Norfolk River Resort comprises 14 cabins and a 20 room lodge, none of which have been adversely affected by high wind or flooding.

“It costs more money to take mitigation measures up front,” said McCumber. “But it saves in the long run and you are spared the headaches of repairing or rebuilding.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region VI**

State: **Arkansas**

County: **Baxter County**

City/Community: **Norfolk**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Flooding**

Activity/Project Type: **Elevation, Structural**

Structure Type: **Wood Frame**

Activity/Project Start Date: **07/1997**

Activity/Project End Date: **Ongoing**

Funding Source: **Business Owner**

Funding Recipient: **Business/Industry**

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 #: **1751 , 03/26/2008**

Repetitive Loss Property? **No**

Reference URLs

Reference URL 1: **<http://www.fema.gov>**

Main Points

No Main Points were entered.



This is a picture of the elevated cabins at Norfolk River Resort



Picture of hurricane straps which are attached to the 2x4's beneath each cabin



Picture of anchoring method used to secure outdoor equipment