

6. CONCLUSIONS

This project combines research of technical and regulatory requirements with added research of construction practices and material specification to better understand dry floodproof construction as a viable method of flood mitigation on the Gulf Coast. The research presents conclusions regarding the preferred locations of dry floodproofing and different methods of dry floodproofing. Several questions are also apparent, which if answered, would help to better inform local professionals and property owners of the implications of dry floodproof construction and design.

6.1 Where to Use Dry Floodproofing

- GIS analysis of BFEs and ground plane elevations shows that dry floodproof construction is allowable in many of the commercial corridors and districts of East Biloxi, and also in a number of other communities along the Mississippi Gulf Coast.
- With proper implementation and consideration of urban design and accessibility issues, dry floodproof construction has the potential to revitalize some of the Gulf Coast's commercial districts that were severely damaged by Hurricane Katrina, while protecting them from future flood events.
- Dry floodproofing is most likely to be used for mitigation of up to 3' of elevation below the BFE. Greater distances can be mitigated with the combination of dry floodproof construction and additional elevation techniques.

6.2 Ways to Use Dry Floodproofing

- Dry floodproof construction is viable within a variety of construction types.
- The membrane is the key component in flood resistant CMU construction. This membrane could be an industrial product not conventionally used for commercial construction, like a multi-layered polymer sealant, or a more common building material, such as a liquid-applied asphaltic membrane with a consistent application.
- Modular and panelized construction systems, such as SIPs and ICF can be used successfully as part of a dry floodproof assembly, with proper detailing.
- Oversight and inspection during construction is extremely important when building to dry floodproof standards.
- The added cost to dry floodproof the sample building is approximately 15% of the total construction budget.

6.3 Ongoing Questions

- In what ways can ATSM standards to be used to indicate the quality of materials to be used in dry floodproof assemblies?
- How can building designs be used to increase the maximum coverage currently provided by the NFIP of \$500,000, which is a factor that limits the viability of project by affecting the size and scope.

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