comprehensive approach to sensible development in coastal areas based on guidance from over 200 experts in building science, coastal hazard mitigation, and building codes and regulatory requirements.

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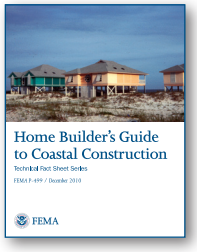


### *Home Builder's Guide to Coastal Construction Technical Fact Sheet Series* (FEMA P-499, December 2010) E, C, CO, H,

This document contains a series of 37 fact sheets that provide technical guidance and recommendations concerning the construction of coastal residential buildings.

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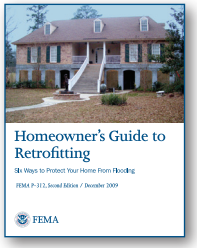


### *Homeowner's Guide to Retrofitting (FEMA P-312, Second Edition, December 2009)*

E, C, CO, H,

This guide is specifically for homeowners who want information on protecting their houses from flooding. Homeowners need clear information about the options available and straightforward guidance that will help make decisions. This guide gives both, in a form designed for readers who have little or no knowledge about flood protection methods or building construction techniques.

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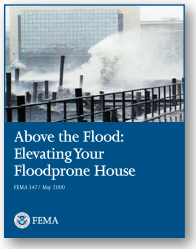


### *Above the Flood: Elevating Your Floodprone House* (FEMA 347, May 2000) E, C, H,

This publication shows how floodprone houses in south Florida were elevated above the 100-year flood level following Hurricane Andrew (1992) and also presents alternative elevation techniques.

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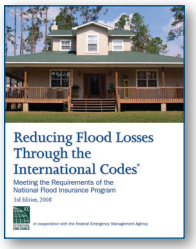


### *Reducing Flood Losses Through the International Codes (Third Edition, August 2008)* E, C, CO,

The third edition of this guide is intended to help community officials decide how to integrate the 2006 edition (and 2007 Supplement) of the International Codes (I-Codes) into their current floodplain development and regulatory processes in order to meet the requirements to participate in the NFIP.

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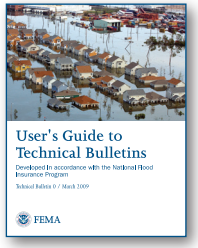


### Technical Bulletins

E, C, CO, H,

The 11 Technical Bulletins provide guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3. The bulletins are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. The bulletins do not create regulations, rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.

http://www.fema.gov/plan/prevent/floodplain/techbul.shtm

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FEMA

FEMA L-782
Catalog No. 09345-3

# Building Science for Disaster-Resistant Communities: Flood Hazard Publications

FEMA L-782 / November 2011

FEMA

Mitigation Works

# Building Science for Disaster-Resistant Communities

# Mitigation Works

## Building Science

The Building Science Branch develops and produces technical guidance and tools focused on fostering a disaster-resistant built environment. Located within the FEMA Federal Insurance and Mitigation Administration's (FIMA) Risk Reduction Division, the Building Science Branch supports FIMA's mission to reduce risk to life and property by providing state-of-the-art technical hazard mitigation solutions for buildings. Mitigation efforts provide value to the American people by creating safer communities and reducing loss of life and property.

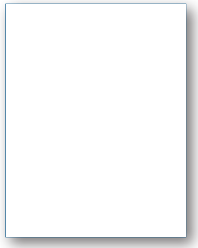
Building Science publications provide strategies for all types of hazards. This brochure provides readers with a quick summary of publications that will help them prepare for and mitigate against flood hazards.

## Flood Hazard

Floods are one of the most common hazards in the United States, affecting more than 20,000 local jurisdictions covered under the National Flood Insurance Program (NFIP) and representing more than 70 percent of Presidential disaster declarations. Flooding is a process that may occur in a variety of forms, including coastal flooding from hurricanes and tropical storms, and flooding from inland floodplain hazards.

Buildings located in flood hazard areas are at risk from forces generated by floodwaters. These forces can include hydrostatic forces from slow moving floodwaters, hydrodynamic forces from waves and quickly moving water, as well as scour around building elements, erosion, and flood-borne debris.

## Building Science Publications



### *Catalog of FEMA Wind, Flood, and Wildfire Publications, and Training Courses, and Workshops* (FEMA P-787,Third Edition, January 2012)

E, C, CO, H,

This catalog contains a listing with brief descriptions of publications and courses developed by the Building Science Branch of FEMA's Mitigation Directorate.

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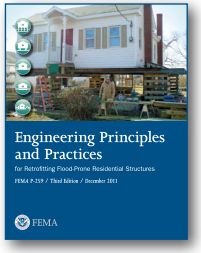
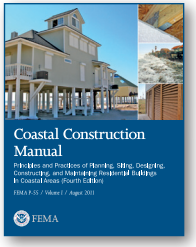



### *Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures* (FEMA P-259, Third Edition, December 2011)

E, C, CO, H,

This publication provides engineering design and economic guidance on what constitutes feasible and cost-effective retrofitting measures for floodprone residential structures.

http://www.fema.gov/library/viewRecord.do?id=1645




### *Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Buildings in Coastal Areas* (FEMA P-55, Fourth Edition, August 2011)

E, C, CO,

To provide mitigation guidance to local officials and professionals in building design and construction, FEMA prepared the third edition of the Coastal Construction Manual. The manual provides a