

Agenda

Presented by John Squerciati, PE, CFM

Reviewing National Flood Insurance Program (NFIP) Standards for Floodplain Development

- Welcome and introductions
- Overview of the NFIP
- Using the right maps and flood data
- Determining what regulations are in effect for a property
- Classifying structures
- Determining which building codes apply
- Identifying when permits are required
- Review exercise

Reviewing National Flood Insurance Program (NFIP) Standards for Building Design

- Technical Bulletin 1: Openings in foundation walls and enclosure walls
- Technical Bulletin 2: Flood damage-resistant materials
- Technical Bulletin 3: Non-residential floodproofing
- Technical Bulletin 5: Free-of-obstruction requirements
- Technical Bulletin 7: Wet floodproofing
- Technical Bulletin 9: Breakaway walls
- Other Bulletins: Elevators, below-grade parking, corrosion protection
- Review exercise

Designing and Constructing Flood Resistant Buildings in Compliance with Codes and American Society of Civil Engineers (ASCE) 24

- Flood-resistant design overview
- The NFIP and building code requirements
- Understanding flood zones and classifying buildings
- Complying with siting requirements
- Using flood-damage resistant materials
- Installing utilities and service equipment
- ASCE 7-10: Flood-resistant building design loads

Designing and Constructing Foundations for Flood-Resistant Performance

- Overview: Basic principles of flood resistant design
- Foundation types and styles
- Complying with restrictions on soils and fill
- Designing closed foundations and slabs-on-grade
- Designing open foundations on piles
- Complying with elevation requirements to use freeboard
- Review exercise

Designing for Above-Grade Flood Resistance

- Overview: Basic principles of flood-resistant design
- Flood-resistant stairs and ramps
- Design of walls
- Location of mechanical and HVAC equipment
- Design of decks, concrete pads and patios
- Pool design
- Limitations on dry floodproofed non-residential buildings
- Review exercise
- Case study exercise

Closing – Importance of Flood-Resistant Design and Construction

- Review topics addressed
- Flood-resistant design and construction benefits to clients – reduced damages and losses, reduced service losses, reduced insurance payments, increased resiliency
- References and additional resources

Coastal Building Design and Construction
Norfolk, VA - Tuesday, April 23, 2019

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Learning Objectives

You'll be able to:

Learn about National Flood Insurance Program standards for floodplain development.

Explore NFIP standards for building design.

Learn about designing and constructing flood-resistant buildings in compliance with codes and American Society of Civil Engineers (ASCE) 24.

Design and construct foundations for flood-resistant performance.

Design for above-grade flood resistance, including stairs, walls, mechanical and HVAC equipment.



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Learn about National Flood Insurance Program standards for floodplain development

Explore NFIP standards for building design

Design and construct flood-resistant buildings in compliance with codes and American Society of Civil Engineers (ASCE) 24

Design and construct foundations for flood-resistant performance

Study design for above-grade flood resistance, including stairs, walls, mechanical and HVAC equipment

Continuing Education Credits

Professional Engineers

7.0 Cont. Ed. Hours

Architects

7.0 Cont. Ed. Hours (HSW)
7.0 AIA HSW Learning Units

International Code Council

.7 CEUs (Building)

DHCD Certified Code Enforcement

7.0 Cont. Ed. Hours

Contractors

Non-Credit CE Opportunity



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Faculty

John Squerciati, PE, CFM Senior Associate at Dewberry Consultants LLC in Fairfax, Virginia

Mr. Squerciati has nearly 20 years of post-disaster damage assessment and hazard mitigation experience under Dewberry's technical assistance contracts with the Federal Emergency Management Agency (FEMA). He has worked on numerous floods and other natural disasters as well as terrorist events. Mr. Squerciati has provided assistance in developing and updating several FEMA policy and technical documents including *Protecting Building Utilities From Flood Damage* (FEMA 348), *Mitigation Assessment Team Report: Hurricane Charley in Florida* (FEMA 488), *Mitigation Assessment Team Report: Hurricane Katrina in the Gulf Coast* (FEMA 549), *Flood Damage-Resistant Materials Requirements* (NFIP Technical Bulletin 2), *Protecting Manufactured Homes from Floods and Other Hazards* (FEMA P-85), *Homeowner's Guide to Retrofitting* (FEMA P-312), *Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings* (FEMA P-259), *Hurricane Isaac in Louisiana Mitigation Assessment Team Report* (FEMA P-938), *Floodproofing Non-Residential Buildings* (FEMA P-936) and the soon to be released *Mitigation Assessment Team Report – Hurricane Sandy in New Jersey and New York: Building Performance Observations, Recommendations, and Technical Guidance* (FEMA P-942). Most recently, Mr. Squerciati led a team of subject matter experts investigating the causes of damage and mitigation considerations for hospitals and other critical facilities following Hurricane Sandy as part of a FEMA Mitigation Assessment Team (MAT).

Mr. Squerciati has developed course materials and has served as an instructor for the following courses at FEMA's Emergency Management Institute: Multi-Hazard Mitigation Design Concepts (E312), Retrofitting Flood-Prone Residential Buildings (E279), Benefit-Cost Analysis (E276), Public Assistance Mitigation (E239), Residential Coastal Construction (E386) and Multi-Hazard Building Design Institute: Flood Protective Design (E329). In addition, he has assisted in the development of materials and has been an instructor for numerous field training workshops and seminars for substantial damage estimation, structural flood-proofing, NFIP technical bulletins, coastal construction, protecting manufactured homes from flooding, and benefit-cost analysis. Mr. Squerciati received his undergraduate and graduate degrees in Civil Engineering from the Cooper Union with a major in Structural Engineering and a minor in Geotechnical Engineering. He has taken additional course work on engineering for extreme winds at Texas Tech University. Mr. Squerciati is a licensed professional engineer in the Commonwealth of Virginia and the State of Louisiana and is a Certified Floodplain Manager.

Seminar Information

Doubletree by Hilton

1500 North Military Highway
Norfolk, VA 23502
(757) 466-8000

Registration
8:00 - 8:30 am
Morning Session
8:30 - 11:45 am
Lunch (On your own)
11:45 am - 12:45 pm
Afternoon Session
12:45 - 5:00 pm

Tuition

\$289 for individual registration

\$269 for three or more registrants from the same company at the same time.

Included with your registration: Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 (HSW) continuing education hours to architects and 7.0 continuing education hours to engineers in all states. Educators and courses are not subject to preapproval in Virginia.

This event has been approved by the American Institute of Architects for 7.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects.

The International Code Council has approved this program for .7 CEUs in the specialty area of Building.

This course offers 7.0 continuing education hours to DHCD building officials, property maintenance officials, and technical assistants employed by a jurisdiction. Educators and courses are not subject to preapproval.

This seminar offers a continuing education opportunity to construction contractors but has not been approved by any state contractor licensing entity.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire program. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Soil Mechanics and Retaining Wall Design

• **Soil Investigation and Classification**

Wed., Feb. 27, 2019, 11:00 AM -1:00 PM CST

• **Retaining Walls: What They Do and How They Do It**

Wed., Feb. 27, 2019, 1:30 -2:30 PM CST

• **Geosynthetics and Retaining Walls**

Thurs., Feb. 28, 2019, 11:00 AM -1:30 PM CST

• **Retaining Wall Failures and Fixes/Site Layout and Prevention**

Thurs., Feb. 28, 2019, 2:00 -4:00 PM CST

National Electrical Code

• **National Electrical Code, Part I**

Wed., March 6, 2019, 11:00 AM - 3:30 PM CST

• **National Electrical Code, Part II**

Thurs., March 7, 2019, 11:00 AM - 3:30 PM CST

• **National Electrical Code, Part III**

Fri., March 8, 2019, 11:00 AM - 3:30 PM CST

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900	Code:	Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____
Fax: 715-835-6066		
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.
		() I need special accommodations. Please contact me.

Tuition

() **I will be attending the live seminar.** Single Registrant - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.

() **I am not attending.** Please send me the self-study package:

Downloadable MP3 Audio/PDF Manual for **\$269.00**.

CD/Manual Package for **\$289.00**.

(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

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