

Agenda

How Soil Behavior Affects Structural Performance *Scott DiFiore*
Cohesionless soils
Cohesive soils
Unsuitable and problematic soils

Behavior of Retaining Walls *Steve Keppel*
Wall types and behavior
Design considerations and lateral earth pressures water
Management and drainage systems
Common problems and failures

Tools of the Trade – Investigation Methods *Scott DiFiore*
Subsurface explorations
Non-destructive test methods for various materials
Instrumentation

Foundation and Retaining Wall Repairs *Giuliana Zelada*
Underpinning options
Slab repair options
Wall repair options
Means and methods
Failure examples with case studies

Shallow Foundations and Slabs-On-Grade *Steve Keppel*
Design considerations
Typical construction
Common problems and failures

How Construction Affects Adjacent Buildings and How to Minimize Damage *Giuliana Zelada*
Vibrations
Lateral movement and settlement
Preconstruction surveys/condition assessments
Monitoring

Evaluating and Rehabilitating Foundations and Retaining Walls: Science, Materials & Techniques
South Portland, ME - Thursday, September 26, 2019

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

Learners will be able to:

Describe the consequences of building on cohesionless and cohesive soils, and will be able to identify unsuitable and problematic soils.

Explore retaining wall types and behavior.

Discuss options for foundation and retaining wall repairs.

Identify the ways in which construction can affect adjacent buildings and implement strategies to minimize damage.



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Evaluating and Rehabilitating Foundations and Retaining Walls: *Science, Materials & Techniques*

South Portland, ME - Thursday, September 26, 2019



Learn how soil behavior affects structural performance

Examine behavior of retaining walls

Review foundation and retaining wall repair techniques

Identify common problems of shallow foundations and slabs-on-grade

Understand how construction affects adjacent buildings

Continuing Education Credits

Professional Engineers

6.0 PDHs

Architects

6.0 HSW Continuing Ed. Hours

6.0 AIA LU|HSW

Contractors

Non-Credit Continuing Ed.



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Faculty

Scott J. DiFiore, P.E.
Principal at Simpson Gumpertz & Heger Inc.
Mr. DiFiore joined SGH in 2005. He has over 20 yrs of experience designing, investigating, and rehabilitating a variety of structures. He holds degrees in both Geotechnical and Structural Engineering, and he combines that knowledge to solve complex problems related to below-grade construction, including retaining walls, excavation-support systems, underpinning systems, and foundations. Mr. DiFiore has taught classes in Applied Mechanics at Tufts University, and he is a member of the Geotechnical Advisory Committee for the Massachusetts Board of Building Regulations and Standards (BBRS). Mr. DiFiore is a registered professional engineer in Massachusetts and several other states. He can be reached at sjdfiore@sgh.com.

Steven F. Keppel, P.E.
Senior Consulting Engineer – Structures at Simpson Gumpertz & Heger Inc.
Mr. Keppel joined SGH in 2006. He has diverse experience in civil, geotechnical, and structural engineering, including

investigating, designing, and rehabilitating a variety of structures. Mr. Keppel has participated in several investigations to determine causes of building settlement and retaining wall failures, and he has experience with structural and geotechnical monitoring and instrumentation. Mr. Keppel is a registered professional engineer in Massachusetts. He can be reached at sfkeppel@sgh.com.

Giuliana A. Zelada-Tumialan, P.E.
Senior Project Manager at Simpson Gumpertz & Heger Inc.
Ms. Zelada-Tumialan joined SGH in 2003. Her area of expertise is in geotechnical engineering. She provides planning, design, and construction support services in the areas of shallow and deep foundation systems, earth-retention systems, and groundwater monitoring for residential, commercial, and industrial buildings, power stations, and substations. Ms. Zelada-Tumialan has also participated in multiple investigations to determine causes of building settlement, retaining wall failures, and slope failures, and she has provided litigation support for various projects. She is a registered professional engineer in Massachusetts and several other states. She can be reached at gazelada@sgh.com.

Seminar Information

Doubletree by Hilton
363 Maine Mall Road
South Portland, ME 04106
(207) 775-6161

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 - 4:00 pm

Tuition
\$289 for individual registration
\$269 for three or more registrations.
Each registration includes a complimentary continental breakfast and printed seminar manual.
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 6.0 PDHs to professional engineers and 6.0 HSW continuing education hours to architects in all states, including Maine. Educators and courses are not subject to preapproval in Maine.

The American Institute of Architects has approved this event for 6.0 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA information under this course listing.

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

This seminar offers a non-credit continuing education opportunity to contractors. It is not 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 event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Structural Design and Ethics

- **Structural Design: Ethical Issues**
Thurs., August 15, 2019, 11:00 AM - 12:00 PM CDT
- **Structural Design: Gravity Forces**
Thurs., August 15, 2019, 12:30 - 2:30 PM CDT
- **Structural Design: Lateral Forces**
Fri., August 16, 2019, 11:00 AM - 12:30 PM CDT
- **Structural Design: Wind, Seismic and Connections**
Fri., August 16, 2019, 1:00 - 2:30 PM CDT

Proposal Writing
Wed., August 7, 2019, 11:00 AM - 3:30 PM CDT

Technical Writing

- **Planning Documents**
Wed., August 14, 2019, 11:00 AM - 1:00 PM CDT
- **Writing Documents**
Wednesday, August 14, 2019, 1:30 - 3:30 PM CDT
- **Revising and Editing Documents**
Thurs., August 15, 2019, 11:00 AM - 1:00 PM CDT
- **Technical Writing Best Practices**
Thurs., August 15, 2019, 1:30 - 3:30 PM CDT

Introduction to Hydro Energy Logic Modeling Software (HELP-FL)

- **Introduction to Hydro Energy Logic Program Modeling Software (HELP-FL), Part I**
Tues., August 20, 2019, 11:00 AM - 2:00 PM CDT
- **Introduction to Hydro Energy Logic Program Modeling Software (HELP-FL), Part II**
Wed., August 21, 2019, 11:00 AM - 2:30 PM CDT

Small Wind Energy Systems

- **Small Wind Energy System Components**
Thurs., August 22, 2019, 11:00 AM - 1:00 PM CDT
- **Small Wind Energy Siting and Sizing**
Fri., August 23, 2019, 11:00 AM - 1:00 PM CDT

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: _____
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		City: _____ State: _____ Zip: _____
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		Phone: _____
		Additional Registrants:
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		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
		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**.

(Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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