

Agenda

Presented by Bill Simpson, PE

Retaining Walls: What They Do and How They Do It

Identifying and quantifying forces acting on retaining walls

- Weight of the wall
- Pressure from retained soil
- Pressure on foundation of wall
- Characteristics of soil
- Loads on retained soil
- Impacts of water—liquid and frozen
- Vibration
- Expansion/contraction

Equations and examples

Geosynthetics and Retaining Walls, Embankments and Slopes

Calculations and software

Types of retaining walls

Embankments

Slopes

Materials

Alternatives

Exercise

- Learn to visually identify geosynthetics as to type, method of manufacture, relative strength, relative permeability, and relative cost

Slope Stabilization Techniques

Examining slope failures

Slope stability analysis

Stabilization techniques

- Unloading
- Drainage
- Reinforcement
- Mechanical stabilization

Slope Stabilization Case Histories

Fundamental soil characteristics and slope instability

Engineering mechanics underlying slope instability

Geologic conditions and construction practices

Field observations to distinguish types of instability

Construction practices to improve or restore stability

Retaining Wall/Slope Failures and Fixes

How to prevent a potential problem or failure

How to recognize a potential problem or failure in the field

Typical causes of problems or failures with geotechnical structures

Case studies/examples of failures and repairs

Retaining Wall Design and Slope Stabilization Techniques

Baltimore, MD - Thursday, March 14, 2019

Halfmoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



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Learning Objectives

You'll be able to:

Identify and quantify the forces that act on slopes and retaining walls, including pressure from soil, and consider the impacts of ice and water.

Discuss types of retaining walls.

Review calculations and explore software options.

Evaluate geosynthetics and other reinforcements as to type, method of manufacture, relative strength, and relative cost.

Examine typical causes of retaining wall/slope failures.

Learn about crucial slope stabilization techniques including unloading, drainage, reinforcement and mechanical stabilization.



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Review the forces acting on retaining walls, including pressure from retained soil, and consider the impacts of groundwater

Understand typical causes of failure for slopes and retaining walls and learn to prevent them

Identify geosynthetics as to type, method of manufacture, relative strength, permeability and cost

Utilize slope stabilization techniques such as unloading and mechanical stabilization

Discuss case studies of slope and retaining wall failures

Continuing Education Credits

Professional Engineers

7.0 PDHs

Architects

7.0 HSW Learning Units/CE Hours

7.0 AIA HSW Learning Units

Landscape Architects

7.0 HSW PDHs

7.0 LA/CES HSW PDHs

Floodplain Managers

7.0 ASFPM CECs



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Faculty

Bill Simpson, PE *Engineered Earth Solutions, LLC*
Mr. Simpson is a geotechnical structure design specialist at Engineered Earth Solutions, LLC. He has designed and reviewed shop drawings for construction and repair of earth structures in the public and private sectors in over 30 states, and he consistently works on more than 1,200 projects and 10 million square feet each year. He performs site visits for new project reconnaissance, construction verification, and construction assistance. Mr. Simpson manages, supervises, instructs, and mentors a team of staff engineers to ensure strict deadlines are met for construction schedules while maintaining design and analysis accuracy. He works with owners, site designers, and contractors to provide designs which are not only structurally sufficient but also financially responsible. Mr. Simpson earned his B.S.C.E. and M.S.C.E. degrees from Georgia Institute of Technology.

Here’s what past attendees have to say about the program and speaker Bill Simpson:
“Love seeing the case studies (photos). Helps bring theory to life.” – *Architect*
“He kept us thinking. Relates very well to participants. Very personable.” – *Architect*
“The best seminar - great on theory and application.” – *Civil Engineer*
“Great seminar to understand retaining wall/slope stabilization.” – *Landscape Architect*

Seminar Information

Radisson Hotel at Cross Keys 100 Village Square, 5100 Falls Road Baltimore, MD 21210 (410) 532-6900	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:00 pm	Lunch (On your own) 12:00 - 1:00 pm Afternoon Session 1:00 - 5:00 pm
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Tuition
\$289 for individual registration
\$269 for three or more registrations.
Each registration includes a 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
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• 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.

Can’t Attend? Order the Manual and the Audio from the Live Seminar as a Self-Study Package!
An audio recording of this seminar is available for \$289. Allow four weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Additional Learning

Webinar Series
Off-Grid Master Class
• **Off-Grid Master Class, Part I**
Wed., Feb. 6, 2019, 11:00 AM -2:15 PM CST
• **Off-Grid Master Class, Part II**
Thurs., Feb. 7, 2019, 11:00 AM -2:15 PM CST

Complying with ADA Standards for Accessible Design
• **Complying with Federal and State Accessibility Requirements**
Thurs., Feb. 7, 2019, 11:00 AM -1:30 PM CST
• **Meeting Requirements in IBC and ADA Standards**
Fri., Feb. 8, 2019, 11:00 AM -1:30 PM CST

For more information and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Special Inspections
• **Introduction to Chapter 17: Special Inspections**
Wed., Feb. 13, 2019, 11:00 AM -12:30 PM CST
• **Soils and Foundations**
Wed., Feb. 13, 2019, 1:00 -2:30 PM CST
• **Reinforced Concrete and Structural Steel**
Thurs., Feb. 14, 2019, 11:00 AM -12:30 PM CST
• **ACT Ceiling Grid, Epoxy Anchors, and Fire Penetrations**
Thurs., Feb. 14, 2019, 1:00 -2:30 PM CST

Foundations in Cold Regions
• **Introduction to Cold Regions Foundations**
Thurs., Feb. 21, 2019, 11:00 AM -12:30 PM CST
• **Shallow Foundation Design in Cold Regions**
Thurs., Feb. 21, 2019, 1:00 -2:30 PM CST
• **Deep Foundation Design in Cold Regions**
Fri., Feb. 22, 2019, 11:00 AM -12:30 PM CST
• **Foundation Construction in Cold Regions**
Fri., Feb. 22, 2019, 1:00 -2:00 PM CST

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 PDHs to professional engineers, 7.0 HSW learning units/continuing education hours to architects, and 7.0 HSW PDHs to landscape architects in most states, including Maryland.

The Maryland Board for Professional Engineers has approved HalfMoon Education as a CPC provider.

This seminar is approved by the American Institute of Architects for 7.0 HSW Learning Units (Sponsor No. J885). Courses approved by the American Institute of Architects are considered approved for Maryland architects.

This activity offers 7.0 HSW PDHs to Maryland landscape architects. This course is deemed acceptable, as it has been approved by the Landscape Architecture Continuing Education System for 7.0 HSW PDHs. Only full attendance can be reported to the AIA/CES and the LA/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 an approved Florida architect continuing education provider and is deemed an approved continuing education sponsor for New York architects and landscape architects.

The Association of State Floodplain Managers has approved this event for 7.0 CECs.

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.

Registration

Retaining Wall Design and Slope Stabilization Techniques

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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	Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	Name: _____ Occupation: _____ Email: _____ Phone: _____
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 for **\$289.00**.
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Checks: Make payable to HalfMoon Education Inc.

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