

Agenda

Presented by Bill Simpson, P.E.

Slope Mechanics and Classification

- Properties of soil
 - Importance of recognizing soil properties
 - Formation of soils
 - Types of soils
- Soil investigation
 - Site reconnaissance
 - Geology and visual observations
 - Drilling and boring
 - Test pits
 - Establishing appropriate investigational methods
 - Obtaining and reviewing geotechnical reports

Slope Stability Analysis

- 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
- Examining causes of slope instability
- Slope stability analysis
- Use of vegetation
- Surface protection
- Evaluating types of slopes
- Natural slopes
- Engineered slopes

Reinforced Slope Stability Analysis

- Calculations and software
- Geosynthetic materials
- Alternatives
- Exercise
- Learn to visually identify geosynthetics as to type, method of manufacture, relative strength, relative permeability, and relative cost

Earth Structure Failures and Fixes/Site Layout and Prevention

- 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

Soil Mechanics, Slope Stabilization, Failures and Repairs

Charleston, WV - Thursday, April 2, 2020



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Learning Objectives

You'll be able to:

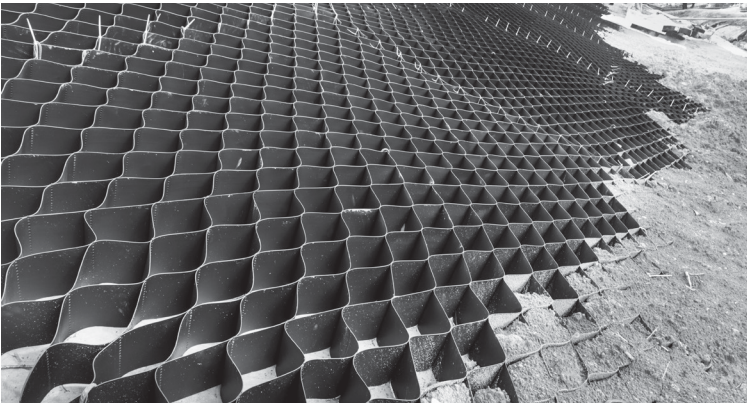
- Explain** the importance of recognizing soil properties, as well as the need to investigate soil composition before undertaking site development.
- Identify** types of slopes and use soil investigation techniques, such as drilling, boring and rest pits, to evaluate site soils.
- Prevent** slope failures, recognize potential problems in the field, and determine causes of slope instability.
- Explore** strategies to improve or restore slope stability, including vegetation and the use of geosynthetic materials.



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Review soil mechanics and discuss soil characteristics

Use soil investigation techniques such as drilling and boring to classify site soils

Examine causes of slope instability

Reinforce slope stability using geosynthetics

Explore earth structure failures and fixes

Continuing Education Credits

Professional Engineers

6.5 PDHs

Architects

6.5 Continuing Ed. Hours (HSW)
6.5 AIA LU|HSW

Landscape Architects

6.5 HSW PDHs
6.5 LA/CES HSW PDHs

Floodplain Managers

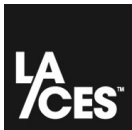
6.5 ASFPM CECS

Contractors

Non-Credit Continuing Ed.



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AIA
Continuing
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Faculty

Bill Simpson, P.E.
Geotechnical Structure Design Specialist at Engineered Earth Solutions, LLC
Mr. Simpson designs and reviews shop drawings for construction and repair of earth structures in the public and private sectors in all 50 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 ensuring 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 had to say about the program and presenter Bill Simpson:
“Excellent program. Appropriate exercises and case studies.” — *Civil Engineer*
“Great blend of personal experience, practical information and theory/physics. Would recommend to others.” — *Landscape Architect*
“Great seminar.” — *Geotechnical Professional*

Seminar Information

Four Points by Sheraton Charleston 600 Kanawha Blvd. East Charleston, WV 25301 (304) 344-4092	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 - 4:30 pm
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Tuition
\$299 for individual registration
\$279 for three or more simultaneous registrations.
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.

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 \$279. 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.

Additional Learning

Webinar Series
Foundation Damage and Repair

- **Design & Geo-Environmental Loading, Building Codes, Soil Properties**
Wed., March 4, 2020, 11:00 AM - 12:30 PM CST
- **Foundation-Slab-Wall Design and Construction**
Wed., March 4, 2020, 1:00 - 2:30 PM CST
- **Evaluation of Foundation-Slab Damage and Repair Alternatives**
Thurs., March 5, 2020, 11:00 AM - 12:30 PM CST
- **Evaluation of Foundation Wall Damage and Repair Alternatives**
Thurs., March 5, 2020, 1:00 - 2:30 PM CST

Solar Photovoltaic Project Design and Development

- **Solar Photovoltaic Project Design and Development, Part I**
Wed., March 4, 2020, 11:00 AM - 2:15 PM CST
- **Solar Photovoltaic Project Design and Development, Part II**
Thurs., March 5, 2020, 11:00 AM - 2:15 PM CST

International Residential Code

- **Development and Enforcement of International Residential Code**
Thurs., March 12, 2020, 11:00 AM - 12:00 PM CDT
- **IRC Building Planning and Shell Construction, Part I**
Thurs., March 12, 2020, 1:00 - 2:30 PM CDT
- **IRC Building Planning and Shell Construction, Part II**
Fri., March 13, 2020, 11:00 AM - 12:30 PM CDT
- **IRC Energy Efficiency and Building Systems**
Fri., March 13, 2020, 1:00 - 3:00 PM CDT

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

Continuing Education Credit Information
This seminar is open to the public and offers 6.5 PDHs to professional engineers, 6.5 HSW PDHs to landscape architects, and 6.5 HSW (Public Protection) continuing education hours to architects in most states, including West Virginia. Educators and courses are not subject to preapproval in West Virginia.

The American Institute of Architects Continuing Education System has approved this course for 6.5 LU|HSW (Sponsor No. J885). Please visit www.halfmoonseminars.org for complete AIA/CES course information under this seminar listing. Only full attendance is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 6.5 HSW PDHs. Only full attendance is reportable to 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), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects and landscape architects.

The Association of State Floodplain Managers has approved this event for 6.5 CECs.

This seminar offers a non-credit continuing education opportunity to construction contractors. It has not been reviewed by any state contractor licensing entity for continuing education purposes.

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

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How to Register	
Online: www.halfmoonseminars.org	
Phone: 715-835-5900	
Fax: 715-835-6066	Code:
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	
Complete the entire form. Attach duplicates if necessary.	
Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ 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 - **\$299.00**. Three or more registrants from the same company registering at the same time - **\$279.00** each.
() **I am not attending.** Please send me the self-study package:
☐ Downloadable MP3 Audio/PDF Manual for **\$279.00**.
☐ CD/Manual Package for **\$299.00**. ☐ USB/Manual Package **\$299.00**.
(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.
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