# **Agenda**

## Presented by Bill Simpson, P.E.

#### 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

Equations and examples

#### Geosynthetics and Retaining Walls, Embankments and Slopes

Calculations and software

Types of retaining walls

Slopes **Embankments** 

Materials Alternatives

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

### **Slope Stabilization Techniques**

Examining deep seated failures

Methods of slope stability analysis

Global stability and site layout

Stabilization techniques

Drainage

Reinforcement/mechanical stabilization

Fundamental soil characteristics and global instability

Engineering mechanics underlying global instability

Field observations to distinguish types of instability

Construction practices to improve or restore stability

Site layout practices to improve stability/prevent instability

#### **Retaining Wall/Slope Failures and Fixes**

How to prevent a potential problem or failure through site layout

How to prevent a potential problem or failure through proper design techniques

Roles and responsibilities to ensure structure success

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

## Can't Attend?

#### Order the Webinar as a Self-Study Package!

Recordings of this webinar are available for purchase. 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.

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and

Design

Wall

Retaining

Stabilization

Slope

Webinar

Interactive

Live,

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



# **Learning Objectives**

#### You'll be able to:

*Identify* and *quantify* forces that act on retaining walls.

**Explore** different types of pressure from retained soil and the foundation of the wall.

**Understand** the impacts of water and the implications has on retaining walls.

**Learn** about the retaining wall calculations and available software.

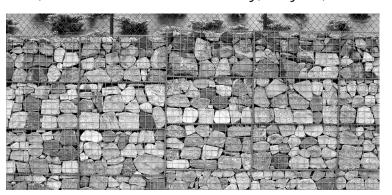
*Identify* geosynthetics as to type, method of manufacture, relative strength, permeability, and cost.



# **HalfMoon Education Online Learning**

# **Retaining Wall Design and Slope Stabilization Techniques**

Live, Interactive Webinar - Friday, May 14, 2021



**Analyze** slope stability and evaluate slope stabilization techniques.

**Review** case studies of retaining wall and slope failures and repairs.

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

Recognize potential stabilization problems or failures.

**Examine** fundamental soil characteristics and global instability.

## **Continuing Education Credits**

**Professional Engineers** 6.5 PDHs

Architects

6.5 HSW CE Hours

AIA

6.5 LU|HSW







Landscape Architects 6.5 HSW CE Hours

LA CES

6.5 HSW PDHs

Floodplain Managers 6.5 ASFPM CECs

**International Code Council** .65 CEUs (Sitework)



# **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.

# **Webinar Information**

Log into Webinar Break 8:00 - 8:30 am EDT 12:00 - 1:00 pm EDT

Afternoon Session Morning Session 8:30 am - 12:00 pm EDT 1:00 - 4:30 pm EDT

### **Tuition**

**\$289** for individual registration

**\$199** for three or more registrants from the same company at the same time.

**Included with vour registration:** PDF 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

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAO section of our website, or visit www.gotowebinar.com.

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

# **Additional Learning**

#### **Foundations on Expansive Soils**

- Wed, April 14, 2021 | 8:30 am - 5:30 pm CDT

#### **Healthy HVAC Design Primer** for Building Professionals

- Fri, April 16, 2021 | 8:30 am - 5:00 pm CDT

#### **Seismic Design and Construction**

- Fri, April 16, 2021 | 8:30 am - 5:00 pm CDT

#### Commercial Site Pavement Design, **Installation and Maintenance**

- Fri, April 16, 2021 | 8:30 am - 4:30 pm CDT

# The Tree Course:

Science, Design, and Sustainability - Fri, April 16, 2021 | 9:00 am - 4:30 pm CDT

Deep Dive into Geosynthetics and

Mechanically-Stabilized Earth (MSE) **Wall Design** 

- Fri, April 16, 2021 | 10:00 am - 1:00 pm CDT

#### The 2021 International Fire Code

- Thurs, April 22, 2021 | 8:30 am - 5:00 pm CDT

#### **Low Impact Development**

- Thurs, April 22, 2021 | 10:00 am - 2:00 pm CDT - Fri, April 23, 2021 | 10:00 am - 12:45 pm CDT

### **2021 International Residential Code:** Residential Non-Structural Design

- Fri, April 23, 2020 | 11:00 am - 3:30 pm CDT

#### **Passive House: Planning and Design**

- Mon, April 26, 2021 | 8:30 am - 4:00 pm CDT

#### **Stormwater Basins** and Underground Systems

- Mon, April 26, 2021 | 8:30 am - 4:30 pm CDT

#### **Deep Dive into Landscaping for** Climate Change

- Mon, April 26, 2021 | 9:00 am - 12:15 pm CDT

#### Structural Forensic Engineering

- Tues, April 27, 2021 | 7:30 am - 4:00 pm CDT

#### **Construction Cost Estimating**

- Wed, April 28, 2021 | 8:30 am - 4:30 pm CDT

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

### **Continuing Education Credit Information**

This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects licensed in Georgia. It offers 6.5 HSW continuing education hours to landscape architects in all states, except Florida, New Jersey, and North Carolina.

Engineers, architects, and landscape architects seeking continuing education credit in other states will be able to claim the hours earned through this course, in most cases. Refer to specific state rules to determine eligibility.

This course has been approved by the American Institute of Architects Continuing Education System for 6.5 LU | HSW (Sponsor No. 1885) and the Landscape Architect Continuing Education System for 6.5 HSW PDHs. Only full participation is reportable to the AIA/CES and LA CES.

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

The International Code Council has approved this webinar for .65 CEUs in the specialty area of Sitework (HalfMoon Education Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

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# Registration

Email:

Signature:

# **Retaining Wall Design and Slope Stabilization Techniques**

| Live, interactiv   | e webinar - Frid                            | ay, May 14, 2021   |                                |
|--|---|--|--------------------------------|
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| <b>Fax:</b> 715-835-6066   | Code:                                       | Phone:   |                                |
| Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278  Complete the entire form. Attach duplicates if necessary. |   | Occupation: Email: Phone: Name: Occupation: Email: Phone:  |                                |
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