

# Faculty and Webinar Instructions

## **Retaining Wall Design and Global Stability Analysis**

**Bill Simpson, PE**

*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 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.

## **Engineered Lumber Design and Construction**

**Scott Lyons** *Boise Cascade Engineered Wood Products*

Mr. Lyons has been with Boise Cascade for six years, with nearly 20 years' experience in the building materials industry, including, roofing, insulation, granite, dimensional lumber and engineered wood products. He is currently the Multi-Family/Light Commercial Manager responsible for promoting Boise Cascade engineered wood products in that segment, working with distributor and deals, driving specification with design professionals and providing education seminars.

**Michael Langley** *Boise Cascade Engineered Wood Products*

Mr. Langley started with Williams Brothers Lumber in Atlanta, GA more than 25 years ago. He learned the wood framing aspect in Multi-Family/Light Commercial projects. Mr. Langley has worked with other lumber suppliers and has relationships with architects and GC's throughout the Southeast. He is currently the Multi-Family/Light Commercial Manager in the Eastern part of the U.S responsible for promoting Boise Cascade engineered wood products in that segment, working with distributors and deals, driving specification with design professionals and providing education seminars.

## **Webinar Instructions**

Each webinar session earns continuing education credit and can be registered for individually. All attendees must log-on through their own email – attendees may not watch together if they wish to earn continuing education credit. HalfMoon Education Inc. must be able to prove attendance if either the attendee or HalfMoon Education Inc. is audited.

Certificates of completion will be available for download and printing upon completion of a follow-up quiz with at least 80% accuracy.

Webinars are presented via **GoToWebinar**, an easy-to-use application that can be run on most systems and tablets. Instructions and login information will be provided in an email sent close to the date of the webinar. **It is highly recommended that you download, install and test the application before the webinar begins by clicking on the link in the email.**

**For more information and system requirements, please visit the "Support" section at [www.gotowebinar.com](http://www.gotowebinar.com).**

## **Live, Interactive Webinars**

- Retaining Wall Design and Global Stability Analysis
- Engineered Lumber Design and Construction



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# Live, Interactive Webinars

## **Retaining Wall Design and Global Stability Analysis**

- Monday, March 15, 2021 | 9:00 am - 5:00 pm CDT

## **Engineered Lumber Design and Construction**

- Wednesday, March 17, 2021 | 8:30 am - 5:00 pm CDT

**To register, view detailed presenter biographies, and see other learning opportunities, please visit:**

**[www.halfmoonseminars.org](http://www.halfmoonseminars.org)**

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# HalfMoon Education Online Learning Live, Interactive Webinars



## **Retaining Wall Design and Global Stability Analysis**

Monday, March 15, 2021 | 9:00 am - 5:00 pm CDT

**Credits:** Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours  
AIA: 7.0 LU | HSW Landscape Architects: 7.0 HSW CE Hours  
LA CES: 7.0 HSW PDHs International Code Council: .7 CEUs (Sitework)  
Floodplain Managers: 7.0 ASFPM CECs

## **Engineered Lumber Design and Construction**

Wednesday, March 17, 2021 | 8:30 am - 5:00 pm CDT

**Credits:** Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours  
AIA: 7.0 LU | HSW International Code Council: .7 CEUs (Building)

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# Retaining Wall Design and Global Stability Analysis

Monday, March 15, 2021 | 9:00 am - 5:00 pm CDT (incl. a 30-min. break)

**Tuition:** \$289 per registrant, \$199 per registrant for three or more

**Credits:** Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours  
AIA: 7.0 LU|HSW Landscape Architects: 7.0 HSW CE Hours  
LA CES: 7.0 HSW PDHs International Code Council: .7 CEUs (Sitework)  
Floodplain Managers: 7.0 ASFPM CECs

**Presented by Bill Simpson, PE**

*Geotechnical Structure Design Specialist at Engineered Earth Solutions, LLC*

## 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 Embankments

Slopes Materials

Alternatives Exercise

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

## Global/Slope Stability Analysis

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 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

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# Engineered Lumber Design and Construction

Wednesday, March 17, 2021 | 8:30 am - 5:00 pm CDT (incl. a 60-min. break)

**Tuition:** \$289 per registrant, \$199 per registrant for three or more

**Credits:** Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours  
AIA: 7.0 LU|HSW International Code Council: .7 CEUs (Building)

**Presented by Michael Langley and Scott Lyons**

*Boise Cascade Engineered Wood Products*

## Topic 1 – Introduction to Engineered Wood Products

Develop an understanding of engineered wood products terminology

Apply common EWP installation details

Recall proper installation methods when using engineered wood products

## Topic 2 – Specification of Engineered Wood Products

Use manufacturer literature to properly specify engineered wood floor systems

- Size, series and spacing

Produce both code book details and manufacturer details to provide clear direction for plan review and proper construction

Identify what quantifies poor specification, but more importantly identify what constitutes proper specification

## Topic 3 - Installation & Inspection of Engineered Wood Products

Use manufacturer literature to find recommendations and proper details to be used in the installation and inspection of engineered wood floor and roof systems

Identify bad installation through inspection and how to remedy issues

Field photo review (after lunch)

## Topic 4 – Load Development with Engineered Wood Products

Size and select I-Joists using manufacturer literature

Size and select beams & columns using manufacturer literature

Load development workshop using manufacturer literature to design an EWP floor system

## Topic 5 – Fire Design with Engineered Wood Products

Summarize the differences between fire-resistive and fire-resistance-rated floor assemblies

Recall the facts about I-joist framed floors and their fire performance as it relates to IRC codes

Identify equivalent methods to comply with code in

- Section R501.3 of the 2012 IRC

- Section R302.13 of the 2015/2018 IRC

- “The Membrane Requirement”

## Topic 6 – Multifamily Construction with Engineered Wood Products

Identify the five types of construction per IBC code

Compare the three common methods of framing

Recall some of the typical detailing and details regarding this type of construction

Apply the tools and resources available to assist with multifamily structure design

## Review & Evaluation

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## Continuing Education Credit Information

### Retaining Wall Design and Global Stability Analysis

This webinar offers 7.0 PDHs to professional engineers and 7.0 HSW continuing education hour to architects in all states. It offers 7.0 HSW continuing education hours to landscape architects all states.. HalfMoon Education is not seeking landscape architect approval in Florida, New Jersey, or North Carolina.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (S-0130), and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects, and landscape architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2), §69.6(i)(2), and §79-1.5(i)(2)).

The American Institute of Architects Continuing Education System has approved this course for 7.0 LU|HSW (Sponsor No. J885). Visit [www.halfmoonseminars.org](http://www.halfmoonseminars.org) for complete AIA/CES information under this course listing. Only full participation is reportable to the AIA/CES.

Courses approved by the AIA/CES qualify for Florida architects. Other states do not preapprove continuing education providers or courses.

The Landscape Architecture Continuing Education System has approved this course for 7.0 HSW PDHs. Only full participation is reportable to the LA CES.

The International Code Council has approved this course for .7 CEUs in the specialty area of Sitework (HalfMoon Education Preferred Provider No. 1232).

The Association of State Floodplain Managers has approved this webinar for 7.0 CECs for certified floodplain managers.

### Shallow Foundation Design, Construction and Repair

This webinar offers 7.0 PDHs to professional engineers and 7.0 HSW continuing education hours to architects licensed in all states.

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The American Institute of Architects Continuing Education System has approved this course for 7.0 LU|HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .7 CEUs in the specialty area of Building (Preferred Provider No. 1232).

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

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