Retaining Wall Design and Slope Stabilization Techniques
Live in-Person Seminar or Live Online Webinar
Camp Hill, PA - Friday, April 17, 2020

Identify types of retaining walls and understand when to use each
Review the forces acting on retaining walls including pressure from retained soil and the impacts of groundwater
Design retaining walls for interior and exterior stability
Analyze key factors that influence long term and short term slope stability
Use slope stabilization techniques such as reinforcement and ground improvement

Learning Objectives
You’ll be able to:
Identify and quantify the forces that act on retaining walls.
Define the characteristics of and applications for different types of retaining walls, including traditional cantilevered walls, timber walls and gravity walls.
Design retaining walls for external, internal and global stability.
Discuss the factors that impact slope stability and can lead to slope failure.
Evaluate crucial slope stabilization techniques, including regrading, reinforcement and ground improvement.

Agenda
Types of Retaining Walls
- Traditional cantilevered retaining walls
- Reinforced concrete walls
- Reinforced concrete masonry walls
- Soldier pile and lagging walls
- Traditional timber walls
- Traditional gravity walls
- Reinforced soil retaining walls
- Anchored retaining walls (tie-backs, soil nailing, etc.)
- Temporary retaining walls
- Over-steepened reinforced slopes
- Gabion walls
- Crib walls
- Private-sector vs. highway retaining wall systems
- Cost of retaining walls

Retaining Wall Design
- Soil design parameters
- Lateral earth pressure
- External stability
  - Sliding
  - Overturning
  - Bearing capacity
  - Settlement
  - Scour
- Internal stability
- Global stability
- Special considerations for tiered retaining walls
- Backfill
- Groundwater
- Service life
- Design software

Slope Stabilization
- Science of slope stability
- Surficial vs. deep-seated slope stability
- Long term vs. short term stability
- Slope stabilization techniques
  - Regrading
  - Excavation and replacement
  - Slope reinforcement/pinning
  - Ground improvement
  - Toe retaining walls

Retaining Wall and Slope Stabilization Case Histories
- Commercial, residential projects
- Highway and institutional projects

You can find more details on www.halfmoonevents.org.
Faculty

Daniel Messmer, PE, LAP, D.GE
Project Manager with The Gateway Engineers, Inc., in Pittsburgh

Mr. Messmer has over 30 years of engineering experience in analysis, design, plan/ specification development, and project management/personnel supervision for geotechnical, foundation and structural engineering projects in the transportation, industrial, municipal and commercial fields of civil engineering. Throughout his career he has placed an emphasis on quality control and staff training. Mr. Messmer is a member of the American Society of Civil Engineers, the American Concrete Institute, the American Society of Highway Engineers and the Society of American Military Engineers. He earned his B.S. degree in Civil Engineering from the University of Pittsburgh. Mr. Messmer was accepted into the Academy of Geo-Professionals in 2013.

Additional Learning

Webinar Series

Structural Forensic Engineering
- Overview of the Role of Forensic Engineering
- Forensic Engineering Process and Forensic Engineering Report
- Causes of Structural Failures
- Examination of Structures and Use in Litigation

Water Conservation
- Reviewing the Owner’s Commitment to Water Conservation and Applicable Codes and Standards
- Assessing the Building Site
- Conserving and Reducing Water Use
- Onsite Water Recycling and Minimizing Water Use

Special Inspections under the IBC Chapter 17
- Special Inspections under the IBC Chapter 17, Part I
- Special Inspections under the IBC Chapter 17, Part II

Continuing Education Credit Information

This seminar is open to the public. It offers 7.0 HSW continuing education hours to architects (non-mandatory in PA) and landscape architects and 7.0 PDHS to professional engineers in most states, including Pennsylvania. Educators and courses are not subject to preapproval in Pennsylvania.

This seminar is approved by the American Institute of Architects Continuing Education System for 7.0 UHS (Provider No. 1858) and the Landscape Architecture Continuing Education System for 7.0 HSW PDHS. Visit www.halfmoonevents.org for complete AIA/CES course information under this seminar listing. Full attendance is reportable to the AIA/CES and LA/CES.

HalfMoon Education is an approved continuing education sponsor for architects and engineers licensed in Florida. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey (Approval No. 24G000070700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education provider for New York architects, landscape architects, and professional engineers. The Association of State Floodplain Managers has approved this event for 7.0 CECs.

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

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 within 15 business days.

Registration

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How to Register

Online: www.halfmoonevents.org
Fax: 715-835-5966
Phone: 715-835-5900
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278

Complete the entire form. Attach duplicates if necessary.

Tuition

$299 for individual registration
$279 for three or more simultaneous registrations.

Included with your registration:
Complimentary continental breakfast and printed seminar manual.

How to Register

Visit us online at www.halfmoonevents.org
Mail-in or fax the attached form to 715-835-6066
Call customer service at 715-835-5900

Registration

1150 Camp Hill Bypass
Camp Hill, PA 17011
(717) 765-7117

Lunch (On your own)
Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:15 pm
12:15 - 1:15 pm
Afternoon Session
1:15 - 5:00 pm

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 refund, minus a $39 service charge for each registrant.

Registration

Complete the entire form. Attach duplicates if necessary.

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.

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