The Agenda includes discussions on Soil Mechanics, Slope Stabilization, Failures and Repairs.

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.

**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**

**Salt Lake City, UT - Friday, March 13, 2020**

**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 Professional Ed. Hours/PDHs
- **Architects**
  - 6.5 HSW Continuing Ed. Hours
  - 6.5 AIA LU|HSW
- **Landscape Architects**
  - 6.5 HSW Contact Hours
- **Floodplain Managers**
  - 6.5 ASFPM CECs

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

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Additional Learning

Webinar Series

Foundations in Cold Regions
- Introduction to Foundations in Cold Regions
  Thurs., Feb. 20, 2020, 11:00 AM - 12:30 PM PST
- Shallow Foundation Design in Cold Regions
  Thurs., Feb. 20, 2020, 1:00 - 2:30 PM PST
- Deep Foundation Design in Cold Regions
  Fri., Feb. 21, 2020, 11:00 AM - 12:30 PM PST
- Foundation Construction in Cold Regions
  Fri., Feb. 21, 2020, 1:00 - 2:00 PM PST

Soil mechanics and Slope Stability
- Soil Investigation and Classification
  Tues., Feb. 25, 2020, 11:00 AM - 1:00 PM PST
- Reviewing Hydraulic and Mechanical Properties of Soils
  Tues., Feb. 25, 2020, 1:30 - 3:00 PM PST
- Determining and Increasing Bearing Capacity
  Wed., Feb. 26, 2020, 11:00 AM - 1:00 PM PST
- Determining and Increasing Slope Stability
  Wed., Feb. 26, 2020, 1:30 - 3:00 PM PST

Designing for Climate Resilience
- Current and Anticipated Climate Effects on Structures and Communities
  Thurs., Feb. 27, 2020, 11:00 AM - 12:30 PM PST
- Assessing the Impact of Sea Level Rise, Changing Temperature and Changing Weather Patterns
  Thurs., Feb. 27, 2020, 1:00 - 3:00 PM PST
- Studying the Impact of Extreme Weather Events on Structures and Communities
  Fri., Feb. 28, 2020, 11:00 AM - 12:30 PM PST
- Adapting Sites, Outdoor Spaces, New Construction and Existing Buildings to Withstand Extreme Weather Events
  Fri., Feb. 28, 2020, 1:00 - 3:00 PM PST

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

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This seminar is open to the public and offers 6.5 professional education hours, PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states. It also offers Utah landscape architects 6.5 HSW contact hours.

This seminar is approved by the American Institute of Architects Continuing Education System for 6.5 LU (HSW) (Sponsor No. 08851) and the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Visit www.halfmooneventseminars.org for complete AIA/CES information under this course listing. Only full attendance is reportable to the AIA/CES and LA/CE.

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The Association of State Floodplain Managers has approved this activity for 6.5 CEUs.

Attention will be monitored and reported. As required, 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.

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