Agenda

Presented by E. Allen Dunn, III, P.E.

Soil Investigation 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

Reviewing Hydraulic and Mechanical Properties of Soils
- Soil permeability
- Compressibility of soil
- Soil hydraulics
  - Saturation, hydraulic gradient, and conductivity
- Drained and undrained shear strength
  - Vertical and lateral earth pressure
- Stress and failure in soils

Determining and Increasing Bearing Capacity
- Calculating bearing capacity
- Bearing capacity of shallow foundations
- Bearing capacity of piers and piles
- Increasing bearing capacity
  - Draining and compaction
  - Soil improvement

Determining and Increasing Slope Stability
- Natural and engineered slopes
- Reviewing basic concepts of slope stability
- Understanding slope failures
- Impact of surface water and groundwater
- Examining slope stabilization methods
  - Unloading
  - Draining and compaction
  - Reinforcement
  - Soil improvement

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Soil Mechanics, Bearing Capacity and Slope Stabilization
Austin, TX - Friday, November 15, 2019

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

Learning Objectives

You'll be able to:

Understand the properties of soils, and discuss the need to conduct soil investigations to determine the appropriate type of foundation for the building site.

Understand the hydraulic and mechanical properties of site soils, paying particular attention to soil compressibility and permeability and their impact on foundation design.

Calculate soil bearing capacity for shallow foundations, piers and piles.

Increase bearing capacity through draining, compaction and soil improvement.

Learn why slopes fail, and describe slope stabilization methods to prevent slope failure and landslides.

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Discuss soil characteristics

Learn soil investigation techniques

Understand the importance of soil permeability and compressibility

Talk about stress and failure in soils

Increase bearing capacity of soils

Examine slope stabilization techniques

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects & Landscape Architects
6.5 HSW CEPHs/CE Hours
6.5 AIA LU|HSW
6.5 LA CES HSW PDHs

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Faculty

E. Allen Dunn, III, P.E. *Lead Foundation Engineer, M&S Engineering LLC*

Mr. Dunn is a licensed professional engineer with over 20 years of civil engineering and related experience specializing in geotechnical engineering, pavement engineering, forensic and structural engineering, construction materials engineering and testing, and electrical transmission engineering. He is licensed in multiple states and his experience includes projects throughout the contiguous United States. Mr. Dunn has worked for commercial, governmental, military, and private clients. He earned a B.S. degree in Civil Engineering from Texas A&M University, an M.S. degree in Civil Engineering and an M.B.A. degree from the University of Texas at San Antonio. Mr. Dunn earned his Ph.D. in Leadership Studies from Our Lady of the Lake University.

Seminar Information

Hilton Garden Inn Downtown
500 North Interstate 35
Austin, TX 78701
(512) 480-8181

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:15 pm
Lunch (on your own)
12:15 - 1:15 pm
Afternoon Session
1:15 - 4:30 pm

Tuition

$289 for individual registration
$269 for three or more registrations.

Each registration includes a 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.

Continuing Education Credit Information

This seminar is open to the public. It offers 6.5 PDHs to professional engineers in all states. Educators and courses are not subject to preapproval in Texas.

This course offers 6.5 HSW CEPHs to Texas architects and landscape architects. The American Institute of Architects has approved this course for 6.5 LU|HSW (Sponsor No. J885), and the Landscape Architecture Continuing Education System has approved it for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES. Educators and courses are not subject to preapproval in Texas. Visit *www.halfmoonseminars.org* for complete AIA information under this course listing.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects and landscape architects.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state contractor licensing entity.

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.

Additional Learning

Webinar Series

Wetlands Law and Compliance

- **Understanding Wetlands Laws and Enforcement**
  Wed., September 25, 2019, 11:00 AM - 1:00 PM CDT
- **Identifying Wetlands and Streams**
  Wed., September 25, 2019, 1:30 - 2:30 PM CDT
- **Obtaining Wetland Permits and the Certification Process**
  Thurs., September 26, 2019, 11:00 AM - 12:30 PM CDT
- **Trends and Opportunities in Wetland Preservation, Restoration, Creation and Enhancement**
  Thurs., September 26, 2019, 1:00 - 3:00 PM CDT

Solar Photovoltaic Project Design and Development

- **Solar Photovoltaic Project Design and Development, Part I**
  Wed., October 2, 2019, 11:00 AM - 2:15 PM CDT
- **Solar Photovoltaic Project Design and Development, Part II**
  Thurs., October 3, 2019, 11:00 AM - 2:15 PM CDT

Special Inspections

- **Introduction to Chapter 17: Special Inspections**
  Thurs., October 10, 2019, 11:00 AM - 12:30 PM CDT
- **Soils and Foundations**
  Thurs., October 10, 2019, 1:00 - 2:30 PM CDT
- **Reinforced Concrete and Structural Steel**
  Fri., October 11, 2019, 11:00 AM - 12:30 PM CDT
- **ACT Ceiling Grid, Epoxy Anchors, and Fire Penetrations**
  Fri., October 11, 2019, 1:00 - 2:30 PM CDT

Component Tolerance Analysis

- **Introduction to Component Tolerance Analysis**
  Thurs., October 17, 2019, 11:00 AM - 12:00 PM CDT
- **Dimensional Tolerance Analysis**
  Thurs., October 17, 2019, 12:30 - 3:00 PM CDT
- **Application of Dimensional Tolerance Analysis**
  Fri., October 18, 2019, 11:00 AM - 2:15 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

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 $269. 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.

Registration

Soil Mechanics, Bearing Capacity and Slope Stabilization

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How to Register

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Complete the entire form. Attach duplicates if necessary.

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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.

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Tuition

( ) **I will be attending the live seminar.** Single Registrant - **$289.00**. Three or more registrants from the same company registering at the same time - **$269.00** each.

( ) **I am not attending.** Please send me the self-study package:

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☐ CD/Manual Package for **$289.00**. ☐ USB/Manual Package **$289.00.**

(Please allow four weeks from seminar date for delivery)

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