

Agenda

Presented by David Harmanos

Soil Mechanics, Bearing Capacity, and Earth Retention

- Understanding soil characteristics
- Basic earth pressure theory
- Bracing systems
- Soil nail walls
- Secant pile and diaphragm walls
- Top-down excavations
- Using cofferdams
- Tieback anchors
- Sheet pile and soldier pile walls

Reviewing Deep Foundation Types

- Types of deep foundations
 - Driven piles
 - Auger cast piles
- Hybrid foundations
 - Grouping piles
 - Selecting foundation type:
 - Life expectancy, cost, soil conditions
- Drilled shafts
- Others

Excavation Safety

- OSHA requirements
- Excavation
- Egress
- Trenching
- Water management

Pile Design

- Effective stress
- Skin friction
 - Granular soils and cohesive soils
- End bearing
 - Soil and rock
- Uplift capacity
- Down drag
- Moment resistance
- Estimating axial capacity
- Computing settlement
- Lateral capacity design
- Battered piles

Installation and Testing

- Construction preparation
- Quality assurance/quality control
- Field records
- Performance/integrity
 - Load test, PDA, CAP/WAP, PIT/PET
- Restriking
- Construction techniques
- Pile testing

Deep Foundations and Excavations

Secaucus, NJ - Thursday, July 18, 2019

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



Learning Objectives

You'll be able to:

- Understand** soil characteristics and basic earth pressure theory.
- Review** different types of deep foundations, including driven piles, drilled shafts and auger cast piles.
- Discuss** excavation safety and OSHA regulations.
- Explore** pile design considerations, such as skin friction, uplift capacity and down drag.
- Get** tips on pile installation, quality assurance and testing.



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- Learn** about soil mechanics, bearing capacity, and earth retention techniques
- Evaluate** different types of deep foundations
- Understand** excavation safety and OSHA requirements
- Explore** pile design considerations, including effective stress and axial capacity
- Discuss** component installation and testing

Continuing Education Credits

- Professional Engineers**
 - 7.0 CPC Credits/PDHs
- Contractors**
 - Non-Credit Continuing Ed.
- Architects**
 - 7.0 HSW Continuing Ed. Hours
 - 7.0 AIA HSW Learning Units



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Faculty

David Harmanos – Branch Manager at Hillis-Carnes Engineering Associates, Inc.

Mr. Harmanos is a professional engineer with extensive experience in subsurface exploration, soil testing, infiltration testing, geosynthetics, and seismic and advanced analysis. His expertise includes commercial, industrial and institutional foundation design; retaining wall and steep slope design; sinkhole remediation; landfill design; site work; forensic engineering; LEED consulting; and construction quality control/assurance (CQA/QC). Mr. Harmanos is a graduate of Drexel University where he received both his BS and MS degrees in Civil Engineering (Geosynthetics and Geotechnical).

Hillis-Carnes performs geotechnical engineering consulting and laboratory testing services. Its construction services include evaluation of bearing materials, inspection of pile driving, slope inclinometer installation and monitoring, and retaining wall construction observation.

Seminar Information

Holiday Inn Secaucus Meadowlands	Registration	Lunch (On your own)
300 Plaza Drive	8:00 - 8:30 am	12:15 - 1:15 pm
Secaucus, NJ 07094	Morning Session	Afternoon Session
(201) 348-2000	8:30 am - 12:15 pm	1:15 - 5:00 pm

Tuition

\$289 for individual registration

\$269 for three or more simultaneous registrations.

Included with your registration: Complementary 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.

Additional Learning

Webinar Series

International Existing Building Codes

- **Working with the International Existing Building Code**
Thurs., June 20, 2019, 11:00 AM - 12:30 PM CDT
- **Chapters 3, 4 & 6**
Thurs., June 20, 2019, 1:00 - 3:00 PM CDT
- **Chapters 7-10: Alterations and Occupancy**
Fri., June 21, 2019, 11:00 AM - 1:00 PM CDT
- **Chapters 11, 12 and 14: Additions and Historic Buildings**
Fri., June 21, 2019, 1:30 - 3:00 PM CDT

Retaining Structures

- **Earth Pressures and Surcharges**
Wed., June 26, 2019, 11:00 AM - 12:30 PM CDT
- **Cantilever & Apparent Earth Pressures**
Wednesday, June 26, 2019, 1:00 - 2:30 PM CDT
- **Apparent Earth Pressures**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT

Industrial Stormwater

- **Understanding the Federal Industrial Stormwater Program**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT
- **Examining Stormwater Pollutants and the Development of Total Maximum Daily Loads (TMDLs)**
Thurs., June 27, 2019, 1:00 - 2:00 PM CDT
- **Creating Stormwater Pollution Prevention Plans (SWPPPs)**
Fri., June 28, 2019, 11:00 AM - 12:00 PM CDT
- **Implementing Best Management Practices (BMPs), Sampling and Reporting**
Fri., June 28, 2019, 12:30 - 2:00 PM CDT

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

Continuing Education Credit Information

This seminar is open to the public and offers up to 7.0 CPC credits/PDHs to professional engineers and 7.0 HSW continuing education hours to architects in all states. HalfMoon Education is an approved continuing education provider for New Jersey engineers (Approval No. 24GP00000700).

This event has been approved by the American Institute of Architects for 7.0 Learning Units (Sponsor No. J885). Courses approved by the AIA qualify for New Jersey architects. Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, North Carolina, and North Dakota.

This seminar offers a non-credit continuing education opportunity to contractors; it has not been approved in any state that has a contractor 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 to participants within fifteen business days.

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

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900		Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____
Fax: 715-835-6066	Code:	Name: _____ Occupation: _____ Email: _____ Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		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.
Complete the entire form. Attach duplicates if necessary.		() I need special accommodations. Please contact me.

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:

- ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
- ☐ CD/Manual Package for **\$289.00**.
(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

Cardholder Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Email: _____