

Agenda

Deep Excavations: Introduction

Defining deep excavations
Types of deep excavations
Methods of stabilization
Common problems and challenges

Soil Mechanics and Sheet Pile Walls

Understanding soil response
Basic earth pressure theory
Cantilever wall analysis
Anchored sheet pile walls

Braced Excavation Design

Braced walls
Apparent earth pressures
Analysis methods

Cofferdams

Applications for cofferdams
Methods of constructing
Design details and methods

ASD and LRFD Design

ASD vs LRFD design framework
LRFD limitations
Design examples

Deep Excavation Case Studies

Solving braced excavations
Case history

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Deep Excavations
Fairfax, VA - Friday, March 2, 2018

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



Learning Objectives

You'll be able to:

Define types of deep excavations and identify common problems and challenges.

Discuss the design and construction of cantilever and anchored sheet pile walls.

Explore the design, construction, and appropriate applications of cofferdams.

Review ASD and LRFD design examples.

Apply what you have learned to braced excavation problems and case histories.



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Learn about different types of deep excavations and explore common problems and challenges

Understand soil's response to pressure using basic earth pressure theory

Receive an overview of sheet pile wall and braced excavation design

Continuing Education Credits

Professional Engineers
6.5 Continuing Ed. Hours

Architects
6.5 Continuing Ed. Hours
6.5 AIA HSW Learning Units

Geologists
Non-credit Continuing Ed.

Analyze ASD vs. LRFD design framework using design examples

Apply what you have learned to braced excavation problems and case histories

Contractors
Non-Credit Continuing Ed.



HalfMoon Education Inc.
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Faculty

Dimitrios C. Konstantakos, P.E., is the founder and CEO of Deep Excavation LLC, a developer of user-friendly, robust, high-quality, integrated deep excavation calculation and design software. He is also the current chair of the American Society of Civil Engineers’ Earth Retaining Structures Committee. Mr. Konstantakos holds a master of science degree in Civil/Geotechnical Engineering from the Massachusetts Institute of Technology, and a BS degree in Civil Engineering from the University of Massachusetts Lowell. He has been involved in the design of bridge foundations, tunnels, deep excavations, finite element simulations, piers and bulkheads, and pile foundations, and he has been involved in field inspections. Mr. Konstantakos’s experience includes structural engineering with a leading geotechnical firm in New York, New York. He is a professional engineer in the states of New York and West Virginia, and a European Union P.E. in Geotechnical Engineering. Mr. Konstantakos has also taught Support of Excavation Systems as an adjunct professor at New York University.

Here’s what past attendees had to say about the program and speaker Dimitrios Konstantakos:

- “Very well done.” – *Engineer*
- “Excellent delivery and communication of material.” – *Civil/Structural Engineer*
- “Very informed and well versed in subject matter. Lots of great examples.” – *Architect*

Seminar Information

Hilton Garden Inn Fairfax 3950 Fair Ridge Drive Fairfax, VA 22033 (703) 385-7774	Registration 8:00 - 8:30 am Morning Session 8:30 - 11:45 am	Lunch (On your own) 11:45 am - 12:45 pm Afternoon Session 12:45 - 4:30 pm
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Tuition

\$279 for individual registration

\$259 for three or more simultaneous 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 a job description, go online to 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 CD/manual package. You may also send another person to take your place.

Additional Learning

Webinar Series

Technical Writing

- **Technical Writing Basics**
Tues., Jan. 9, 2018, 11:00 AM - 1:00 PM CST
- **Planning Documents**
Tues., Jan. 9, 2018, 1:30 - 3:30 PM CST
- **Writing Documents**
Wed., Jan. 10, 2018, 11:00 AM - 1:00 PM CST
- **Revising and Editing Documents**
Wed., Jan. 10, 2018, 1:30 - 3:30 PM CST

Deep Foundations

- **Deep Foundation Site Evaluation**
Wed., Jan. 17, 2018, 11:00 AM - 12:00 PM CST
- **Overview of Deep Foundations**
Wed., Jan. 17, 2018, 12:30 - 2:00 PM CST
- **Deep Foundation Pile Design**
Thurs., Jan. 18, 2018, 11:00 AM - 12:30 PM CST
- **Deep Foundation Installation and Testing**
Thurs., Jan. 18, 2018, 1:00 - 2:00 PM CST

Masonry Design and Construction

- **Introduction to Masonry Materials and Requirements**
Thurs., Jan. 11, 2018, 11:00 AM - 1:00 PM CST
- **Masonry Construction Techniques**
Thurs., Jan. 11, 2018, 1:30 - 3:30 PM CST
- **Quality Control and Sampling**
Fri., Jan. 12, 2018, 11:00 AM - 1:00 PM CST
- **Masonry Inspections and the Masonry Standards Joint Committee (MSJC) Code**
Fri., Jan. 12, 2018, 1:30 - 3:30 PM CST

Designing Solar Roofs and Community Solar

- **Design Your Solar Roof**
Wed., Jan. 24, 2018, 11:00 AM - 2:15 PM CST
- **Community Solar**
Wed., Jan. 31, 2018, 11:00 AM - 2:15 PM CST

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

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 continuing education hours to engineers and 6.5 continuing education hours (HSW) to architects in all states, excluding Florida architects. Educators and courses are not subject to preapproval in Virginia.

This event has been approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is deemed an approved continuing education sponsor for New York architects. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

This event offers Virginia geologists a non-credit continuing education opportunity.

This seminar offers a non-credit continuing education opportunity to construction contractors; it has not been approved by any state contractor licensing entity for continuing education purposes.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire program. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can’t Attend? Order the CD/Manual Package:

An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. 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 Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ 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. () I need special accommodations. Please contact me.
Online: www.halfmoonseminars.org	
Phone: 715-835-5900	
Fax: 715-835-6066	
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	
Complete the entire form. Attach duplicates if necessary.	

Tuition

() **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.

() **I am not attending.** Please send me the 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: _____