

Agenda

Presented by David Harmanos, P.E.

Soils in Construction Day One

Tuesday, October 20, 2020 | 12:00 - 4:00 pm EDT (including a 30-min. break)

Soil Investigation and Classification

Soil classification

- 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

Soils in Construction Day Two

Wednesday, October 21, 2020 | 12:00 - 4:00 pm EDT (including a 30-min. break)

Complying with Building Code Provisions on Soils

International Building Code (IBC)

International Residential Code (IRC)

Infrastructure standards and guidelines

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
- Grouting

Determining and Improving 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

- Covering
- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

Soils in Construction

Online - Tuesday, October 20, 2020
and Wednesday, October 21, 2020

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Learning Objectives

You'll be able to:

Describe the purpose and process of classifying soils on a project site and for conducting soil investigations before breaking ground on a construction project.

Discuss the relevance of soil permeability and compressibility of project site soils and explain the science of stress and failure in soils.

Reference and comply with soil provisions found in the International Building Code and the International Residential Code.

Calculate bearing capacities of soils for shallow foundations and explain the process of increasing bearing capacities.

Differentiate natural and engineered slopes, be able to identify causes of slope failures, and be able to determine appropriate slope stabilization methods.



HalfMoon Education Online Learning Soils in Construction

Live, Interactive Webinar Series

Tuesday, October 20 and Wednesday, October 21, 2020



Understand soil investigation and classification procedures

Review hydraulic and mechanical properties of soils

Comply with building code provisions on soils

Determine and increase bearing capacity

Understand slope stability and learn stabilization methods

Continuing Education Credits

Professional Engineers

7.0 PDHs

Architects

7.0 HSW CE Hours

AIA

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LA CES

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International Code Council

.7 CEUs (Building)



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Faculty

David Harmanos, P.E. *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.

Webinar Information

Day One: Tuesday, October 20, 2020
12:00 - 4:00 pm EDT (including a 30-min. break)

Day Two: Wednesday, October 21, 2020
12:00 - 4:00 pm EDT (including a 30-min. break)

(please log into the webinar 15 - 30 minutes before start time)

Tuition
\$299 for individual registration
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Included with your registration: *PDF seminar manual.*

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Commercial Energy Conservation Code Essentials for Architects
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Carbon Credits: Creation, Trading, and Role in Climate Action
- Mon., Oct. 19, 2020 | 1:30 - 3:30 pm CDT

How to Design Detention Basins
- Mon., Oct. 19, 2020 | 11:00 am - 1:00 pm CDT

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- Fri., Oct. 23, 2020 | 10:30 am -12:30 pm CDT

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How to Test for Indoor Air Quality: Reflections from a Residential Department of Energy Research Study
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How to Design for Wind Loads
- Wed., Oct. 28, 2020 | 6:00 - 8:00 pm CDT

How to Increase Energy Conservation and Provide Electric Car Charging Capabilities
- Fri., Oct. 30, 2020 | 11:00 am - 12:00 pm CDT

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This course is approved by the International Code Council for .7 CEUs in the specialty are of Building (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

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Registration

Soils in Construction

Live, Interactive Webinar - Tuesday, October 20 and Wednesday, October 21, 2020

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Tuition
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