Agenda

Presented by Chris Zamaites, P.E., CFM, CPESC, ENV SP

Accommodating Multiple Purposes of Site Engineering

Engineering for built elements Slope stabilization
Stormwater management Landscape aesthetics

Sustainability goals: minimizing disturbance and preserving natural features

Considering the Impact of Soils and Landforms

Understanding the role of soils

Soil characteristics, classification and engineering properties

Identifying the underlying geological conditions

Understanding the watershed

Considering site topography: high points, low points and plane surfaces

Site Engineering and Stormwater Management and Erosion Control

National Pollutant Discharge Elimination System (NPDES)

and stormwater pollution prevention plans

Reviewing state and local regulations

Sediment traps and basins

Drainage systems

Buffer zones

Slope stabilization

Earthwork Safety

Weight of soil and excavation hazards

Underground installations Water accumulation

Site Plans

Site plan contents Soil investigation and considerations

Surface water and groundwater considerations

Excavation specifications and hauling

Construction grade staking

Site Grading

Grading for roads, sidewalks and paths

Grading for stairs and ramps Grading for retaining walls

Grading slopes

Site Program Management

Initiation, planning, execution and closure

Program governance

Quality control

Case Study: Applying Science and Technology to a Site Engineering Problem

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Practical Site Engineering: Science and TechniquesAnn Arbor, MI - Tuesday, January 22, 2019



Learning Objectives

You'll be able to:

Engineer for built elements and landscape aesthetics while preserving natural features and minimizing disturbance.

Consider the role of soils and the impact of landforms.

Develop erosion and sediment control processes.

Understand earthwork safety considerations, including maintaining safety during underground installations.

Grade for roads, sidewalks, stairs and ramps.

Utilize case studies to understand past failures and challenges for the future.







Practical Site Engineering: Science and Techniques

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Accommodate multiple purposes of site engineering including stormwater management and slope stabilization

Discuss soils and landforms including soil characteristics and engineering properties, as well as site topography

Understand National Pollutant Discharge Elimination System (NPDES) requirements and stormwater pollution prevention plans

Explore site plans, including excavation specifications and construction grade staking

Apply site program management from planning to execution and closure

Continuing Education Credits

Professional Engineers

7.0 Continuing Ed. Hours

Architects & Landscape Architects

7.0 HSW Continuing Ed. Hours
7.0 AIA HSW Learning Units
7.0 LA CES HSW PDHs

Contractors

Non-Credit Conintuing Ed.







Faculty

Chris Zamaites, P.E., CFM, CPESC, ENV SP, Burns & McDonnell, Chicago

Ms. Zamaites is a senior civil engineer with Burns & McDonnell in Chicago. She has 28 years of experience with planning and design covering municipal infrastructure and commercial, residential, and recreational development, along with planned community design. Ms. Zamaites' experience includes utility design/relocation for water transmission and distribution systems; sewage collection; and stormwater management systems including that for arterial, collector and local street systems. Included with the aforementioned design experience is floodplain evaluation and management, utility relocation, hydrology and hydraulics, earthen dam inspections, stream modeling with scour countermeasures, erosion and sediment control, and compliance with all regulatory criteria associated with local planning and zoning ordinances, stormwater ordinances, and other applicable regulatory criteria from local to the federal level. Ms. Zamaites' hydrologic and hydraulic modeling experience includes HEC 1, HEC 2, WSP2, WSPRO, WIN TR-20, TR 55, SWMM, HEC-RAS, HydroCAD, SewerCAD, StormCAD, Culvert Master, and Flow Master.

Seminar Information

Courtyard by Marriott Ann Arbor

3205 Boardwalk Drive Ann Arbor, MI 48108 (734) 995-5900

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 - 5:00 pm

Tuition

\$279 for individual registration

\$259 for three or more simultaneous registrations.

Included with your registration: 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.

Additional Learning

Webinar Series

Residential Energy Code

- Introduction to the Residential Energy Code and Mandatory Requirements Thurs., Dec. 6, 2018, 11:00 AM - 12:30 PM CST
- IECC Residential Building Envelope Requirements

Thurs., Dec. 6, 2018, 1:00 - 2:30 PM CST

- IECC Residential HVAC Requirements Fri., Dec. 7, 2018, 11:00 AM - 12:30 PM CST
- International Energy Conservation **Permit Pathways**

Fri., Dec. 7, 2018, 1:00 - 2:30 PM CST

Deep Foundations

- Deep Foundation Site Evaluation Weds., Dec. 12, 2018, 11:00 AM - 12:00 PM CST
- Overview of Deep Foundations Weds., Dec.12, 2018, 12:30 - 2:00 PM CST
- Deep Foundation Pile Design Thurs., Dec. 13, 2018, 11:00 AM - 12:30 PM CST
- Deep Foundation Installation and Testing Thurs., Dec. 13, 2018, 1:00 - 2:00 PM CST

Stormwater Management Systems

- Stormwater Infrastructure Practices Weds., Dec. 19, 2018, 11:00 AM - 1:00 PM CST
- Infiltration Management Techniques Thurs., Dec. 20, 2018, 11:00 AM - 1:00 PM CST

NFPA 70E Series

- NFPA 70E, Part I
- Weds., Dec. 26, 2018, 11:00 AM 3:30 PM CST NFPA 70E, Part II
- Thurs., Dec. 27, 2018, 11:00 AM 3:30 PM CST

Seismic Design and Construction

- Seismology and Building Codes Thurs., Dec. 27, 2018, 11:00 AM - 3:30 PM CST
- Seismic Design of Building Structures Fri., Dec. 28, 2018, 11:00 AM - 3:30 PM CST

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 7.0 continuing education hours to professional engineers and 7.0 HSW continuing education hours to architects and landscape architects in most states, including Michigan architects and engineers. Educators and courses are not subject to preapproval in Michigan.

This course has been approved by the American Institute of Architects for 7.0 HSW Learning Units (Provider No. J885) and the Landscape Architecture Continuing Education System for 7.0 HSW PDHs. Only full attendance can be reported to LA/CES and AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects and landscape architects.

This seminar offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any contractor licensing entity with a 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!**

An audio recording of this seminar is available for \$289. Allow four 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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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278 Complete the entire form. Attach duplicates if necessary.		Occupation: Email: Phone: 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		
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Tuition						
) I will be attending the live seminar. Single Registrant - \$279.00. Three or more						
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