

Credit Information

Erosion and Sediment Control

This webinar offers 7.0 PDHs to professional engineers in all states, 7.0 HSW continuing education hours to architects in all states, and 7.0 HSW continuing education hours to landscape architects licensed in all states except New Jersey and North Carolina.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The Florida DBPR Board of Landscape Architecture generally accepts courses approved by the Landscape Architecture Continuing Education System. Landscape architects licensed in Florida are encouraged to review The 2021 Florida Statutes, 481.313(4) to determine course eligibility.

The American Institute of Architects Continuing Education System has approved this course for 7.0 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 7.0 HSW PDHs. Only full participation is reportable to LA CES.

This seminar has been approved by the Association of State Floodplain Managers for 7.0 CECs for floodplain managers.

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).

Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects licensed in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 6.5 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .65 CEUs in the specialty area of Energy (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).

Live, Interactive Webinars

- Erosion and Sediment Control
- Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

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Live, Interactive Webinars

Erosion and Sediment Control

- Tuesday, January 25, 2022 | 8:30 am - 5:00 pm CST

Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

- Wednesday, January 26, 2022 | 12:00 - 3:30 pm CST

- Thursday, January 27, 2022 | 12:00 - 3:30 pm CST

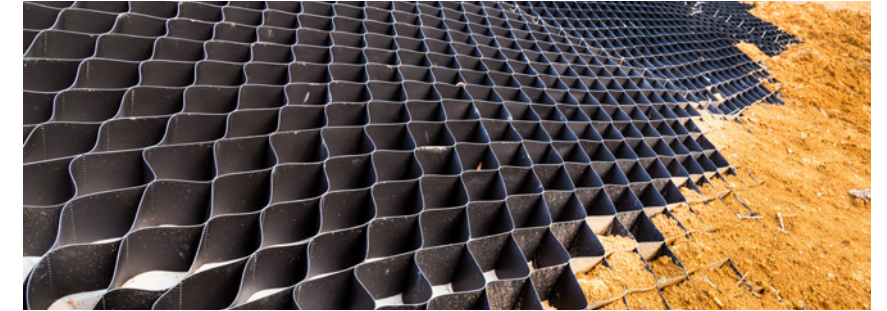
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HalfMoon Education Live Webinars



Erosion and Sediment Control

Tuesday, January 25, 2022 | 8:30 am - 5:00 pm CST

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours

AIA: 7.0 LU | HSW Landscape Architects: 7.0 HSW CE Hours

LA CES: 7.0 HSW PDHs Floodplain Managers: 7.0 ASFPD CECs



Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

Wednesday, January 26, 2022 | 12:00 - 3:30 pm CST

Thursday, January 27, 2022 | 12:00 - 3:30 pm CST

Credits: Professional Engineers: 6.5 PDHs Architects: 6.5 HSW CE Hours

AIA: 6.5 LU | HSW International Code Council: .65 CEUs (Energy)



Erosion and Sediment Control

Tuesday, January 25, 2022 | 8:30 am - 5:00 pm CST (incl. a 60-min break)

Tuition: \$289 per registrant, \$239 per registrant for three or more

Credits: Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours
AIA: 7.0 LU|HSW Landscape Architects: 7.0 HSW CE Hours
LA CES: 7.0 HSW PDHs Floodplain Managers: 7.0 ASFPM CECs

Agenda

Erosion and Sediment Control Requirements and Practices

- Environmental Protection Agency regulations
- State regulatory requirements
- Standards and specifications
- Permitting, approval and enforcement

Goals for and Selection of Erosion and Sediment Control Practices

- Causes of erosion and sedimentation
- Practices that minimize site disturbance
- Preservation of native vegetation
- Selecting appropriate practices for disturbed areas on the construction site

Non-Structural Erosion and Sediment Control Best Practices

- Temporary and permanent seeding, sodding and mulching
- Use of geotextiles
- Chemical soil stabilization
- Establishment of buffer zones

Stream and Bank Stabilization

- Stream bank erosion protection
- Bank stabilization and repair

Structural Erosion and Sediment Control Practices

- Earthen dikes
- Drainage swales
- Pipe drains
- Subsurface drains
- Silt fences
- Berms
- Check dams

Sediment Traps and Sediment Basins

- Calculating flow rates and capacity
- Designing and sizing

Permanent Stormwater Management Practices

- Basics of hydrology
- Rate vs volume control
- Ponds, infiltration, and bioretention

Operation and Maintenance Plans

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Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

Wednesday, January 26, 2022 | 12:00 - 3:30 pm CST (incl. a 15-min break)

Thursday, January 27, 2022 | 12:00 - 3:30 pm CST (incl. a 15-min break)

Tuition: \$289 per registrant, \$239 per registrant for three or more

Credits: Professional Engineers: 6.5 PDHs Architects: 6.5 HSW CE Hours
AIA: 6.5 LU|HSW International Code Council: .65 CEUs (Energy)

Agenda Day One

Overview of Systems to be Covered

- Air-source heat pumps, mini-splits, and ducted units for space heating
- Heat pump water heaters and air-source heat pumps for domestic hot water

Understanding How Heat Pumps Work

- Heat pump process cycle, terminology, and measures of performance
- COP (coefficient of performance)
- Performance in cold climates
- Air-to-air and air-to-water systems

Utilizing Air-Source Heat Pumps for Space Heating

- Cold-climate air-source heat pumps
- Products and manufacturers
- Examples and case studies
- Air-source heat pumps in commercial and residential use

Agenda Day Two

Utilizing Air-Source Heat Pumps for Space Heating

- Proposed improvements to rating metrics for air-source heat pumps
- New construction and retrofit case studies
- Lessons learned

Examining Heat Pump Water Heater Performance For Domestic Hot Water

- High-performance equipment options and recent developments
- Heat pump water heaters
- Products and manufacturers
- Examples and case studies
- Heat pump water heaters in residential use
- New construction and retrofit case studies
- Lessons learned

Examining Air-to-Water Heat Pumps for Domestic Hot Water

- Products and manufacturers
- Examples and case studies
- Air-to-water heaters in residential use
- New construction and retrofit case studies
- Lessons learned

Pairing Heat Pumps with Solar Electric Systems in Net Zero Energy Residences

Roundup and Review

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Faculty

Erosion and Sediment Control

Steven Trinkaus *Principal at Trinkaus Engineering, LLC, in Southbury, CT*

Mr. Trinkaus is an internationally-recognized expert in the field of low impact development, having presented at many ASCE/EWRI international conferences and many other regional conferences and workshops on LID and water quality issues. He has been an invited presenter and consultant in Taiwan, China and South Korea. He has also presented on Sustainable Stormwater at the University of St. Andrews in Scotland. Mr. Trinkaus has written LID design manuals for the Towns of Tolland, Plainville, Harwinton, East Granby, and Morris, Connecticut. He has designed many types of LID treatment systems for a variety of residential and commercial applications. Mr. Trinkaus is chair of the EWRI LID Guidance Document Task Committee and primary author of the Committee's national guidance document on adopting LID standards. Mr. Trinkaus is a licensed professional engineer in Connecticut and Maryland. He received a bachelor of science degree in Forest Management in 1980 from the University of New Hampshire. He has more than 38 years of experience in the land development field, more than 19 years of experience designing low impact development treatment systems, and six years of experience writing LID regulations and design manuals.

Air-Source Heat Pumps, Mini-Splits, and Heat Pump Water Heaters

Bart Bales, PE MSME is the principal and professional consulting engineer at Bales Energy Associates in Massachusetts. Bales Energy Associates provides energy analysis, design, and implementation of high-performance, energy-efficient and renewable energy systems for buildings and facilities with an emphasis on a "whole-systems," building science-based approach. Mr. Bales' studies include detailed investigations and recommendations for temperature controls and building automation system optimization and improvement.

Bales Energy Associates provides study services for whole building energy analyses, high-performance mechanical design, and solar energy and wind energy systems analysis and design services. Mr. Bales is the principal of Bales Energy Associates and has effectively delivered energy engineering and HVAC design services for 30 years.

In recognition of the critical importance of heating systems in high-performance, energy-efficient, green buildings, Mr. Bales developed the following workshops:

- High-Performance, Energy-Efficient 'Green Heating' Systems
- Cold-Climate Heat Pumps, Pellet Boilers, & Other Renewable Thermal Heating Systems
- Air-Source Heat Pumps, Mini-Splits and Heat Pump Water Heaters

Mr. Bales is a registered professional mechanical engineer in Massachusetts, Connecticut, New York, Rhode Island, and Vermont. His energy analysis experience and expertise includes comprehensive facility energy audits and feasibility studies for energy efficiency measures, combined heat and power (cogeneration) systems, and solar electric, solar thermal, and windpower systems.

Additional Learning

Soil Mechanics, Bearing Capacity and Slope Stabilization

- Fri, Dec 17, 2021 | 8:30 am - 4:30 pm CST

International Building Code 2021

- Fri, Dec 17, 2021 | 8:30 am - 5:00 pm CST

National Electrical Code 2020

- Tues, Dec 28, 2021 | 8:30 am - 5:00 pm CST

Structural Forensic Engineering

- Wed, Dec 29, 2021 | 10:00 am - 1:45 pm CST

- Thurs, Dec 30, 2021 | 10:00 am - 1:45 pm CST

Residential and Small Commercial Solar Photovoltaic Energy Systems

- Thurs, Dec 30, 2021 | 8:30 am - 4:00 pm CST

Designing for Accessibility under ADA Standards and 2021 IBC

- Tues, Jan 11, 2022 | 8:30 am - 4:30 pm CST

Technical Writing Workshop for Design Professionals

- Wed, Jan 12, 2022 | 8:30 am - 5:00 pm CST

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www.halfmoonseminars.org

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