

Agenda

Presented by Robert P. Schaffer, P.E.

Concrete Building Design

- Concrete mix design considerations
- Benefits of concrete admixtures and applications
- Slab-on-grade design
- Elevated floor systems in concrete
 - Concrete beam supported slabs
 - Concrete slabs and joists
 - Waffle slabs and two way slabs
- Concrete columns – rectangular, square, round
- Concrete lateral systems – frame vs shear wall

Steel Building Design

- Steel building design considerations
- Composite floor system design and benefits
- Structural floor system alternatives
 - Joist floor systems
 - Comslab
 - GirderSlab
 - DeltaBeam
 - EcoSpan
- Structural diaphragm systems and attachments
- Steel columns – wide flange, HSS, pipe
- Structural lateral systems
 - Moment frames – partial restrained and fully restrained
 - FEMA requirements
 - Braced frame systems
 - Masonry or concrete shear walls

Concrete and Steel Building Design: A General Overview

Camp Hill, PA - Thursday, May 30, 2019



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

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Learning Objectives

You'll be able to:

- Learn** about elevated floor systems in concrete, including concrete beam supported slabs.
- Discuss** concrete mix design considerations.
- Examine** structural floor system alternatives for steel buildings.
- Explore** steel columns, including wide flange.
- Learn** about structural lateral systems, including moment frames.



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- Examine** concrete building design
- Discuss** the benefits of concrete admixtures and applications
- Learn** about elevated floor systems in concrete
- Explore** concrete and steel columns
- Learn** about steel building design considerations
- Analyze** the alternatives to structural floor systems

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects
6.5 Continuing Ed. Hours
6.5 AIA Learning Units

Contractors
Non-Credit Continuing Ed.



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Faculty



Robert P. Schaffer, P.E.
Bala Consulting Engineers Inc., King of Prussia, PA

Mr. Schaffer has 17 years of experience in structural analysis and design throughout the Mid-Atlantic region and is a licensed professional engineer in Pennsylvania and New Jersey. He is a graduate of Penn State University Architectural Engineering program with an emphasis in Structural Engineering. Mr. Schaffer has project experience in commercial, higher education, pharmaceutical, hospital/life care and multi-family residential markets. In 2012, he was selected by *Consulting Specifying Engineer Magazine* as a Top 40 Under 40 for his achievements in structural engineering.

Additional Learning

Webinar Series

- Solar Photovoltaic Project Design and Development**
- **Solar Photovoltaic Project Design and Development, Part I**
Wed., May 1, 2019, 11:00 AM - 2:30 PM CDT
 - **Solar Photovoltaic Project Design and Development, Part II**
Thurs., May 2, 2019, 11:00 AM - 2:30 PM CDT

- Passive House: Planning and Design**
- **Energy Efficiency of Conventional Construction**
Thurs., May 9, 2019, 11:00 AM - 12:00 PM CDT
 - **Passive House Standard: Purpose, Principles and Development**
Thurs., May 9, 2019, 12:30 - 2:00 PM CDT
 - **Architectural Elements of Passive Houses**
Fri., May 10, 2019, 11:00 AM - 12:30 PM CDT
 - **Mechanical Systems in Passive Houses**
Fri., May 10, 2019, 1:00 - 2:30 PM CDT

- Erosion and Sediment Control**
- **Soils and Causes of Erosion**
Thurs., May 16, 2019, 11:00 AM - 12:00 PM CDT
 - **Goals for Selection of Erosion and Sediment Control Practices**
Thurs., May 16, 2019, 12:30 - 1:30 PM CDT
 - **Calculations for Determining Soil Loss and Channel Stabilization**
Fri., May 17, 2019, 11:00 AM - 12:00 PM CDT
 - **Non-Structural Erosion and Sediment Control Best Practices**
Fri., May 17, 2019, 12:30 - 1:30 PM CDT

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

Seminar Information

Radisson Hotel Harrisburg 1150 Camp Hill Bypass Camp Hill, PA 17011 (717) 763-7117	Registration 8:00 - 8:30 am	Lunch (On your own) 12:00 - 1:00 pm
	Morning Session 8:30 am - 12:00 pm	Afternoon Session 1:00 - 4:30 pm

Tuition
\$289 for individual registration
\$269 for three or more 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 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.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 continuing education hours to architects in all states. Educators and courses for Pennsylvania engineers are not subject to pre-approval.

This seminar is 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.

The New York State Education Department recognizes continuing education providers approved by the American Institute of Architects Continuing Education System. Courses in approved subject areas are considered approved New York State mandatory continuing education for engineers.

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

This program offers a non-credit continuing education opportunity to construction contractors. It has not been submitted to any state contractor licensing entity for continuing education approval.

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: _____
Phone: 715-835-5900	Company/Firm: _____
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	City: _____ State: _____ Zip: _____
Complete the entire form. Attach duplicates if necessary.	Occupation: _____
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	Additional Registrants:
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	Occupation: _____
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	Name: _____
	Occupation: _____
	Email: _____
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	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.

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**.
- (Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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

Credit Card Number: _____

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