

Agenda

Presented by Darren Macri

Understanding the Energy Efficiency of Conventional Construction

Facts and figures on residential energy use
History of energy-conserving residential construction
Building code requirements
Energy conservation incentives

Passive House Standard: Purpose, Principles and Development

History of certifying agencies in US: PHI and PHIUS
Passive House Standard: voluntary performance-based building envelope energy standard
Energy calculations: how and when to perform them
Energy calculation tools: an introduction to tools and their functionality
Assembling a team to ensure quality and performance
Examining common design features of Passive Houses

Architectural Elements of Passive Houses

Siting, sizing and orientation
Super-insulated envelope with minimized thermal bridging
Efficient ventilation
Ultra-efficient lights, fixtures and appliances
Summer shading and cooling strategies
Winter solar gain and heat retention strategies
Integrating renewable energy technologies

Mechanical Systems in Passive Houses

Optimizing heat gains

- Passive solar heat gains
- Indoor environmental heat gains

Heat exchanger
Supplemental heating
Renewable energy system integration
Energy-efficient appliances

Evaluating Passive House Case Studies

Adapting Passive House for the Midwest
Case studies: in the planning process, under construction and finished projects

Passive House: Planning and Design
Somerset, NJ - Friday, April 27, 2018

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Learning Objectives

You'll be able to:

Explain the history of energy-conserving residential construction, and explore the development of the Passive House Standard.

Understand the requirements of Passive House, a voluntary performance-based building envelope energy standard.

Discuss energy calculation tools and review design features common to Passive Houses.

Integrate renewable energy technologies into your Passive House design.

Evaluate mechanical systems, including heat exchangers.

Adapt Passive House for local climates.



Passive House: Planning and Design

Somerset, NJ - Friday, April 27, 2018



Understand the energy efficiency of conventional construction

Examine the purpose, principles and development of the Passive House Standard

Identify elements of Passive House design

Learn about mechanical systems in Passive Houses

Explore winter solar gain and summer shading strategies

Discuss case studies that illustrate the planning process, construction techniques and finished projects

Continuing Education Credits

Professional Engineers

6.5 CPC Credits

Architects

6.5 HSW CE Hours
6.5 AIA HSW Learning Units

Contractors

Non-Credit Continuing Ed.



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Faculty

Darren Macri
CEO and Founder of Bleu Nest; Certified Passive House Consultant & Tradesperson, LEED AP and Intus High Performance Windows Rep.

Over the last decade, Mr. Macri has been homebuilding and renovating projects consisting of multi-family condo conversions and single family townhouses. He is the proud builder of New Jersey’s First Certified Passive House at 0.29 AHCn50. Mr. Macri was selected to share his Passive House knowledge and hands-on experience as a presenter at the North American Passive House Conference in Vancouver. He has also taught numerous continuing education classes and Passive House 101 Seminars. Bleu Nest seeks to liberate people from the “average home building standard” by injecting high-performance Passive House know-how into their projects and out into the world so that we may all MAKE AVERAGE THE ENEMY and BUILD BETTER.

Seminar Information

Doubletree by Hilton Somerset 200 Atrium Drive Somerset, NJ 08873 (732) 469-2600	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
Solar Photovoltaic Project Design and Development

- **Solar Photovoltaic Project Design and Development, Part I**
Wed., Mar. 7, 2018, 11:00 AM - 2:15 PM CST
- **Solar Photovoltaic Project Design and Development, Part II**
Thurs., Mar. 8, 2018, 11:00 AM - 2:15 PM CST

Deep Excavations

- **Introduction to Deep Excavations**
Thurs., Mar. 15, 2018, 11:00 AM - 1:00 PM CDT
- **Soil Mechanics, Cantilever Walls and Anchored Sheet Pile Walls**
Thurs., Mar. 15, 2018, 1:30 - 3:00 PM CDT
- **Braced Excavation Design**
Fri., Mar. 16, 2018, 11:00 AM - 12:30 PM CDT
- **ASD and LRFD Design**
Fri., Mar. 16, 2018, 1:00 - 2:30 PM CDT

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

Continuing Education Credit Information

This seminar is open to the public and offers up to 6.5 CPC/PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states, except Florida architects. HalfMoon Education is an approved continuing education provider for New Jersey engineers (Approval No. 24GP00000700).

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

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

This seminar also offers a non-credit continuing education opportunity to contractors; it has not been approved in any state that has a contractor 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 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.

HEC-RAS

- **Hydraulic Principles and Applications**
Thurs., Mar. 22, 2018, 11:00 AM - 1:00 PM CDT
- **Working with the HEC-RAS User Interface**
Thurs., Mar. 22, 2018, 1:30 - 3:00 PM CDT
- **Water Surface Profiling**
Fri., Mar. 23, 2018, 11:00 AM - 1:00 PM CDT
- **Steady Flow Surface Profile Demonstrations**
Fri., Mar. 23, 2018, 1:30 - 3:30 PM CDT

Commercial Energy Conservation Code

- **Commercial Energy Conservation Code and COMcheck Introduction**
Weds., Mar. 28, 2018, 11:00 AM - 1:00 PM CDT
- **Building Envelope Energy Efficiency**
Weds., Mar. 28, 2018, 1:30 - 3:30 PM CDT
- **Heating, Ventilation and Air Conditioning Systems**
Thurs., Mar. 29, 2018, 11:00 AM - 1:00 PM CDT
- **Service Water Heating, Power and Lighting**
Thurs., Mar. 29, 2018, 1:30 - 3:00 PM CDT

Registration

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How to Register	Registrant Information
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Complete the entire form. Attach duplicates if necessary.	
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 - **\$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.

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