

Agenda

Presented by Jason Morosko, MSME, CPHC

Understanding the Energy Efficiency of Conventional Construction

- Conventional residential energy use
- History of energy-conserving residential construction
- Energy conservation incentives
- Current weatherization tactics

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
- Passive House energy calculations
- 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

Elements of Passive House Design

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

Mechanical Systems in Passive House

- Heat exchangers
- Supplemental space conditioning for micro loads
- Renewable energy system integration

Evaluating Passive House Case Studies

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

Passive House: Planning and Design
Raleigh, NC - Friday, August 9, 2019

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Learning Objectives

You'll be able to:

Review 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

Raleigh, NC - Friday, August 9, 2019



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 PDHs

Architects
6.5 HSW Continuing Ed. Hours
6.5 AIA HSW Learning Units

Construction Contractors
Non-Credit Continuing Ed.



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Faculty

Jason Morosko, MSME, CPHC
Vice President of Engineering with UltimateAir, Inc.

Mr. Morosko is a vice president with UltimateAir, a research, design, and manufacturing company of leading technology air-to-air heat exchangers. Mr. Morosko is a 12-year veteran in this field, and he holds bachelors and masters degrees in heat transfer engineering. He became a certified Passive House consultant, and has taught the curriculum to become a certified Passive House consultant. Mr. Morosko has built his own Passive House duplex, and he has consulted on various Passive House projects in the particular areas of mechanical systems, shell design, and ventilation.

Here’s what past attendees had to say about the seminar and presenter Jason Morosko:

- “Excellent presentation. Open to questions.” – *Architect*
- “Mr. Morosko is very knowledgeable and a good presenter.” – *Engineer*
- “Most everything was interesting and informative.” – *Mechanical Engineer*

Seminar Information

Hyatt Place Raleigh West 710 Corporate Center Drive Raleigh, NC 27607 (919) 233-2205	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
\$289 for individual registration
\$269 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

International Existing Building Codes

- **Working with the International Existing Building Code**
Thurs., June 20, 2019, 11:00 AM - 12:30 PM CDT
- **Chapters 3, 4 & 6**
Thurs., June 20, 2019, 1:00 - 3:00 PM CDT
- **Chapters 7-10: Alterations and Occupancy**
Fri., June 21, 2019, 11:00 AM - 1:00 PM CDT
- **Chapters 11, 12 and 14: Additions and Historic Buildings**
Fri., June 21, 2019, 1:30 - 3:00 PM CDT

Industrial Stormwater

- **Understanding the Federal Industrial Stormwater Program**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT
- **Examining Stormwater Pollutants and the Development of Total Maximum Daily Loads (TMDLs)**
Thurs., June 27, 2019, 1:00 - 2:00 PM CDT
- **Creating Stormwater Pollution Prevention Plans (SWPPPs)**
Fri., June 28, 2019, 11:00 AM - 12:00 PM CDT
- **Implementing Best Management Practices (BMPs), Sampling and Reporting**
Fri., June 28, 2019, 12:30 - 2:00 PM CDT

Retaining Structures

- **Earth Pressures and Surcharges**
Wed., June 26, 2019, 11:00 AM - 12:30 PM CDT
- **Cantilever & Apparent Earth Pressures**
Wednesday, June 26, 2019, 1:00 - 2:30 PM CDT
- **Apparent Earth Pressures**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT

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 6.5 PDHs to professional engineers and 6.5 HSW contact hours to architects in all states. HalfMoon Education is an approved continuing education provider for North Carolina engineers.

This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. J885). Activities approved by the AIA qualify for North Carolina architects. Only full attendance can be reported to the AIA/CES.

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.

This event offers a non-credit continuing education opportunity to construction contractors. 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

Passive House: *Planning and Design*

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How to Register	Registrant Information
Online: www.halfmoonseminars.org	Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____
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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 - **\$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**.

(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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