

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

Middleburg Heights, OH - Thursday, March 22, 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

Middleburg Heights, OH - Thursday, March 22, 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 CPD Hours/PDHs

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

Construction Contractors
Non-Credit Continuing Ed.



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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

Crowne Plaza Cleveland Airport 7230 Engle Road Middleburg Heights, OH 44130 (440) 243-4040	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.
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.



Webinar Series

Building Operations and Efficiency

- **Identifying Energy Efficiency Opportunities in Major Renovations**
Thurs., Feb. 1, 2018, 11:00 AM - 12:30 PM CST
- **Integration of “Energy Modeling” in the Design of High Performance Buildings**
Thurs., Feb. 1, 2018, 1:00 - 2:30 PM CST
- **High Efficiency Building Design Standards**
Fri., Feb. 2, 2018, 11:00 AM - 12:30 PM CST
- **Commissioning and Operation of High Performance Buildings**
Fri., Feb. 2, 2018, 1:00 - 3:00 PM CST

International Mechanical Code

- **International Mechanical Code Background and Application**
Thurs., Feb. 15, 2018, 11:00 AM - 12:30 PM CST
- **Chapters 2-5: Definitions, Regulations and Ventilation**
Thurs., Feb. 15, 2018, 1:00 - 3:00 PM CST
- **Chapters 6-10: Ventilation, Appliances and Equipment**
Fri., Feb. 16, 2018, 11:00 AM - 1:00 PM CST
- **Chapters 11-15: Refrigeration, Piping and Appendices**
Fri., Feb. 16, 2018, 1:30 - 3:00 PM CST

NFPA 70E

- **NFPA 70E, Part I**
Thurs., Feb. 8, 2018, 11:00 AM - 3:30 PM CST
- **NFPA 70E, Part II**
Fri., Feb. 9, 2018, 11:00 AM - 3:30 PM CST

National Electrical Code: A Solar Photovoltaic System Perspective

- **National Electrical Code for Building Professionals, Part I**
Wed., Feb. 21, 2018, 11:00 AM - 2:15 PM CST
- **National Electrical Code for Building Professionals, Part II**
Thurs., Feb. 22, 2018, 11:00 AM - 2:15 PM CST

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

Continuing Education Credit Information

This live lecture presentation is open to the public and offers 6.5 CPD hours/PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states, except Florida architects. Educators and courses are not subject to preapproval in Ohio.

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.

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

This seminar offers a non-credit continuing education opportunity to contractors. It has not been approved by any state contractor licensing entity for mandatory continuing education credit.

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:
A full recording of this seminar is available for \$289, which includes shipping and handling. This learning method does not qualify for the continuing education credit for Ohio architects or engineers. Please allow five weeks from the seminar date for delivery.

Registration

Passive House: *Planning and Design*
Middleburg Heights, OH - Thursday, March 22, 2018

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 - **\$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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