

Agenda

Passive House Standard: Purpose, Principles and Development

E. Correa

- 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

K. Witt

- 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 and Electrical Systems in Passive Houses

J. Cohen

- Optimizing heat gains
 - Passive solar heat gains
 - Indoor environmental heat gains
- Heating and cooling loads
- Space conditioning
- Renewable energy system integration
- Energy-efficient appliances

Passivehaus for Existing Multi-use Buildings

P. Vierthaler

- How passivehaus concepts can be used in existing multi-unit buildings
- Retrofits available for reducing energy usage in multi-unit buildings
- The importance of reduced VOCs and good ventilation in living units
- Increased electric capacity through energy retrofits offers more car charging capacity

How to Maximize Health and Durability While Minimizing Lifecycle Carbon Impact

I. Nimmo

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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.

Passive House:

Planning, Design and Construction

Portland, OR - Friday, November 15, 2019



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Altoona, WI 54720-0278

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Learning Objectives

You'll be able to:

Explain Passive House concepts, and identify common design features in Passive Houses.

Incorporate common design features of Passive Houses into project designs, including super-insulated building envelopes, minimized thermal bridging and efficient ventilation.

Site, size and orient structures to incorporate summer shading and winter solar gains.

Discuss Passive House mechanical and electrical systems that optimize heat gains and use technology to manage heating and cooling loads.

Describe Passive House concepts that can be used in existing multi-use buildings, including reduced energy usage, reduced VOCs, improved ventilation and increased electrical capacity.

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Consider the Passive House purpose, principles and development

Explore the architectural elements of passive houses

Understand mechanical and electrical systems in Passive Houses

Discuss how Passive House concepts can be used in existing multi-unit buildings

Learn how to maximize health and durability while minimizing lifecycle carbon impact

Continuing Education Credits

Architects

7.0 HSW CE Hours (CEHs)
7.0 AIA LU|HSW

Professional Engineers
7.0 PDHs

PHIUS

7.0 CPHC CEUs

Contractors

7.0 Commercial CE Hours



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Elizabeth Correa *Registered architect & Certified Passive House Consultant*

Ms. Correa has over ten years of experience in design and construction. Her CPHC background has inspired her to focus on the fundamentals of building science for high performance buildings and how to integrate that into design the design process. She brings practical experience from some of the largest cities in North America including New York and Chicago. Ms. Correa has worked on a variety of projects ranging from light rail stations and multi-family apartment buildings to university campus buildings.

Kevin Witt *First Lamp Architecture*

Born into a family of draftsmen, tradesmen, and carpenters, Mr. Witt represents the fifth generation in his family that has earned a living through the design and construction of residential architecture. He began by building homes during summers in high school, and later his architectural education at Texas Tech taught him to combine the acts of drawing and building in order to deepen the creative and functional integrity of a home. Since co-founding First Lamp in 2009, he has implemented an increasing degree of high-performance details, materials, and construction practices, the most recent of which is a home that is pending PHIUS certification in Seattle, WA.

Jonathan Cohen *Imagine Energy, LLC*

Mr. Cohen founded Imagine Energy in 2003 to “change the way people think about and use energy.” An aerospace engineer by training, he brings an engineering approach to provide better comfort, indoor air quality, and energy use in people’s homes and businesses. Mr. Cohen offers knowledge in building science and energy efficiency, solar PV, solar thermal, wind energy, heat pumps (including geothermal), off-grid systems, and other energy technologies. He has served as a test engineer at Sun Microsystems in Menlo Park, California and at the National Wind Technology Center in Boulder, Colorado. He has been an instructor at Oregon institute of Technology’s renewable energy engineering program, teaching practical PV design and

installation, as well as serving as chair of OIT’s Industry Advisory Committee. He helped develop the Home Performance Contractor’s Guild and was instrumental in developing policy for Clean Energy Works Oregon program, the Oregon Solar Energy Code, and permitting of solar installations on standing-seam metal roofs without roof penetrations.

Peter Vierthaler *Northwest Partners, LLC*

Mr. Vierthaler has been involved in multifamily real estate for 25 years. He has long provided turnkey services for the acquisition and repositioning of multifamily properties, for both himself and the partnerships that he has worked for or been involved in. Mr. Vierthaler bachelor’s degree in Construction Management gives him the unique ability to undertake complicated projects with a high degree of confidence resulting in a successful outcome. He is an active investor in many clean technology companies and is a member of Element8, a clean technology and sustainability angel investor group. He has assisted many companies in this space with their “go to market” strategies.

Ian Nimmo *475 High Performance Building Supply*

Mr. Nimmo graduated from the University of Puget Sound with a degree in International Politics in 2008. Since then, Mr. Nimmo has had a focus on sustainability and energy conservation working for Greenpeace as a canvasser on busy Seattle streets, as a project manager for a commercial LED lighting rebate program, and most recently working on regional energy efficiency and indoor air quality studies in the Northwest. He is a certified building analyst through the Building Performance Institute and has over five years of commercial and residential energy auditing experience. He also just completed the training to become a certified Passive House tradesperson. At 475 Mr. Nimmo assists with technical guidance and support to help clients build to Passive House levels of performance. Mr. Nimmo loves connecting with the natural world via gardening, hiking, backpacking, mountain biking, skiing, surfing, stargazing, and swimming in chilly alpine lakes.

Seminar Information

DoubleTree by Hilton - Portland

1000 NE Multnomah Street
Portland, OR 97232
(503) 281-6111

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:15 pm
Lunch (On your own)
12:15 - 1:15 pm
Afternoon Session
1:15 - 5:00 pm

Tuition

\$289 for individual registration
\$269 for three or more registrants from the same company at the same time.

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.

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 HSW continuing education hours to architects and 7.0 PDHs to professional engineers in all states. This seminar also offers 7.0 continuing education hours to Oregon commercial contractors. Educators and courses are not subject to preapproval in Oregon.

This seminar is approved by the American Institute of Architects Continuing Education System for 7.0 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA/CES information under this course listing.

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 engineers and architects.

The Passive House Institute US has approved this event for 7.0 Certified Passive House Consultant (CPHC) CEUs.

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.

Additional Learning

Webinar Series

Slope Stability and Landslide Prevention

• Slope Movement and Mechanisms

Thurs., October 24, 2019, 11:00 AM - 1:00 PM CDT

• Slope Stabilization Methods

Thurs., October 24, 2019, 1:30 - 3:00 PM CDT

• Landslide Hazard and Risk Assessment

Fri., October 25, 2019, 11:00 AM - 12:00 PM CDT

• Slope Stabilization and Landslide Mitigation

Fri., October 25, 2019, 12:30 - 2:30 PM CDT

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

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Registration

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900		Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____
Fax: 715-835-6066	Code:	Name: _____ Occupation: _____ Email: _____ Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		Name: _____ Occupation: _____ Email: _____ Phone: _____
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**. USB/Manual Package **\$289.00**.

(S&H included. Please allow five 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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