

Agenda

Energy-Efficient Building Envelope as Part of a Whole Building Approach *C. Modisher*

Integrating the building envelope with other building systems
Design considerations

- Siting and orientation
- Mechanical and plumbing
- Electrical and renewable energy systems

Performance goals Occupancy and use
Energy modeling process to quantify energy savings

Energy Standards, Codes, Incentives and Efficiency Designations *S. Wiley*

ASHRAE 90.1
International Energy Conservation Code

- Requirements
- Compliance

Tax and utility incentives
Energy-efficiency certifications

- LEED, Energy Star and others

Creating and Maintaining the Four Critical Barriers and Wall Systems *N. Shaw*

Qualities of high performance
Water control
Air barriers and air tightness strategies
Vapor retarders and moisture control
Insulation and thermal bridging
Foam-free Passive House strategies

Mass Walls: A Case Study of Autoclaved Aerated Concrete *D. Levy*

What is autoclaved aerated concrete (AAC)
How is AAC produced
Properties of AAC
Benefits of AAC
The Woodstock (NY) Passive House
Construction process
Reactions to the home

Designing and Installing Efficient Fenestration Systems *E. May*

Fenestration characteristics and parameters affecting energy efficiency, thermal comfort and durability
Evaluation of window products for energy efficiency and comfort
Designing window and door installation details to maximize performance
Special topics: Curtain walls, skylights, sloped glazing, retrofits

Making Critical Connections: *J. Loercher*

Detailing and Constructing Transition Areas

Revisiting the four barriers and maintaining continuity
Design process: developing details and engaging energy modeling
Construction process: coordinating and sequencing

Energy-Efficient Building Envelope Design and Construction
Albany, NY - Wednesday, April 10, 2019



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Learning Objectives

You'll be able to:

Learn how to integrate an energy-efficient building envelope with other building systems.

Identify International Energy Conservation Code requirements and discuss strategies for compliance.

Examine air barriers and air tightness strategies.

Discuss mass walls and the autoclaved aerated concrete construction process.

Consider detailing and constructing transition areas.



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Learn about energy-efficient building envelopes as part of a whole building approach

Examine energy standards, codes, incentives and efficiency designations

Learn how to create and maintain the four critical barriers and wall systems

Explore mass walls and autoclaved aerated concrete (AAC) benefits

Discuss design and installation of efficient fenestration systems

Continuing Education Credits

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

Professional Engineers
6.5 Continuing Ed. Hours

International Code Council
.65 CEUs (Energy)

Contractors
Non-Credit Continuing Ed.



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Faculty

Craig Modisher *Owner, Ironwood Builders, Ithaca, NY*
Mr. Modisher has been the owner and operator of Ironwood Builders in Ithaca, New York, for the last 10 years. Ironwood builders is known for its high-efficiency custom homes. As a certified Passive House consultant, he heads the company’s design consulting team and manages their custom homes construction down to the smallest details. Many of their houses also include green building materials, net zero energy design, and unique and creative aesthetics.

Seth Wiley *Owner, Pretty Things, LLC, Brooklyn, NY*
Mr. Wiley is trained as a sculptor and architect. He has worked in commercial and residential design and construction for nearly 20 years, holds various professional certifications, and has successfully started and run multiple businesses. Mr. Wiley earned his master’s degree in Architecture from Rensselaier Polytechnic Institute in 2006.

Nick Shaw *New York Product Specialist, 475 High Performance Building Supply, Brooklyn, NY*
475 High Performance Building Supply helps professionals make durable, resilient, ecological, and energy-efficient buildings that optimize occupant comfort and health by providing knowledge and materials that are essential to high performance buildings. Mr. Shaw is a PHIUS-certified consultant and builder, familiar with a variety of high performance techniques as a self-described sustainable design nerd. He has been working in the green building field for 10 years primarily on integrated design-build projects. He has a B.A. degree in Environmental Studies with a concentration in Environmental Education from Warren Wilson College, and is very excited by the number of high-performance buildings going up in New York. Mr. Shaw spends his free time enjoying the outdoors by hiking, rock climbing, fly fishing, and snowboarding.

Daniel Levy, Ph.D.
Certified Passive House Consultant PHIUS, Greenspring Building Systems Inc., Woodstock, NY
Mr. Levy designs and builds Passive Houses, specializing in construction with autoclaved aerated concrete. He aims to create healthy and comfortable spaces for all, including those with

chemical sensitivities. Previously he taught woodworking technology, and is versatile with both historic and modern woodworking tools. He previously helped renovate 150 Baltimore City row-houses with Habitat for Humanity, where he created a lead abatement program and taught construction. His college education started with a degree in Environmental Studies and continued through a Ph.D. degree in Industrial Education.

Edwin May *Partner, Building-Type LLC, Brooklyn, NY*
Mr. May is a licensed architect, Passive House consultant and a LEED Green Associate. He received a bachelor of Fine Arts degree from the University of Massachusetts at Amherst in 2001 and a masters of Architecture degree from Parsons the New School in NYC in 2009. He has been an adjunct professor at Parsons the New School University as well an industry professor at Stevens Institute of Technology in Hoboken, New Jersey where he directed the 2015 ‘Solar Decathlon’ program. In addition, Mr. May teaches with the Passive House Academy, the North American Passive House Network, and Passive House Canada, and he is certified by the Passive House Institute (PHI) in Germany and the Passive House Institute of the US (PHIUS) as a certified Passive House consultant.

John Loercher *Northeast Projects, LLC*
Mr. Loercher is an instructor for the Passive House Institute U.S., secretary of the Passive House Alliance - Hudson Valley chapter and owner of Northeast projects LLC. He is a certified Passive House consultant, holds a Master’s degree in Architecture from Parsons the New School and received advanced energy modeling training through Fraunhofer Society in Germany and Passive House Institute U.S. His firm, Northeast Projects, LLC specializes in Passive House design, high performance building envelope design and advanced energy modeling. It engages a wide range of work from single family residences to commercial projects, mixed-use projects, new construction and retrofits.

Seminar Information

Marriott Albany 189 Wolf Road Albany, NY 12205 (518) 458-8444	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:00 pm Lunch (On your own) 12:00 - 1:00 pm Afternoon Session 1:00 - 4:30 pm
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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.

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. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers up to 6.5 continuing education hours to professional engineers and 6.5 HSW continuing education hours to architects in all states.
HalfMoon Education is an approved continuing education provider for New York engineers (NYSED Sponsor No. 35).
HalfMoon Education is deemed a New York-approved continuing education provider for architects via its affiliation with the American Institute of Architects.

This event 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. Courses approved by the AIA qualify for New Jersey architects.

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.

The International Code Council has approved this event for .65 CEUs in the specialty area of Energy.

This event offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state with a continuing education requirement for 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.

Additional Learning

Webinar Series

National Electrical Code

- **National Electrical Code, Part I**
Wed., March 6, 2019, 11:00 AM - 3:30 PM CST
- **National Electrical Code, Part II**
Thurs., March 7, 2019, 11:00 AM - 3:30 PM CST
- **National Electrical Code, Part III**
Fri., March 8, 2019, 11:00 AM - 3:30 PM CST

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

Registration

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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.
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