

Credit Information

Designing to Withstand Tornadoic Loads on Buildings

This webinar offers 6.0 PDHs to professional engineers and 6.0 HSW continuing education hours to architects licensed in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved HalfMoon Education as a sponsor of continuing education (Sponsor No. J885). This course has been submitted for AIA CES approval and is currently pending. Only full participation is reportable to the AIA CES.

The International Code Council has approved this event for .6 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

HVAC Primer for Design Professionals

This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects licensed in all states.

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The American Institute of Architects Continuing Education System has approved this course for 6.5 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .65 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Can't Attend? Order the Webinar as a Self-Study Package!

Recordings of each webinar are available for purchase. See course listing online 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.

Live, Interactive Webinars

- Designing to Withstand Tornadoic Loads on Buildings
- HVAC Primer for Design Professionals

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PERMIT NO. 2016

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Live, Interactive Webinars

Designing to Withstand Tornadoic Loads on Buildings *with ASCE 7-22*

- Tuesday, April 26, 2022 | 9:00 am - 4:00 pm CDT

HVAC Primer for Design Professionals

- Tuesday, May 3, 2022 | 8:30 am - 4:30 pm CDT

**To register, view detailed presenter biographies,
and see other learning opportunities, please visit:**

www.halfmoonseminars.org

or call our Customer Service Department at (715) 835-5900



HalfMoon Education Live Webinars



Designing to Withstand Tornadoic Loads on Buildings *with ASCE 7-22*

Tuesday, April 26, 2022 | 9:00 am - 4:00 pm CDT

Credits: Professional Engineers: 6.0 PDHs Architects: 6.0 HSW CE Hours
AIA: Pending International Code Council: .6 CEUs (Building)



HVAC Primer for Design Professionals

Tuesday, May 3, 2022 | 8:30 am - 4:30 pm CDT

Credits: Professional Engineers: 6.5 PDHs Architects: 6.5 HSW CE Hours
AIA: 6.5 LU | HSW International Code Council: .65 CEUs (Building)

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Designing to Withstand Tornadic Loads on Buildings *with ASCE 7-22*

Tuesday, April 26, 2022 | 9:00 am - 4:00 pm CDT (incl. two 30-min breaks)

Tuition: \$319 per registrant, \$289 per registrant for two or more

Credits: Professional Engineers: 6.0 PDHs Architects: 6.0 HSW CE Hours
AIA: Pending International Code Council: .6 CEUs (Building)

Agenda

Study of Tornadoes and Development of ASCE 7-22

- Definition of tornadoes and other high-wind events
- History and location of tornadoes and windstorms
- Lessons learned from study of Joplin tornado, 2011
- Development of ASCE/SEI 7-22
- Adoption and enforcement of ASCE 7 standards

Location and Classification of Structures

- ASCE 7-22's hazard maps
- Building risk categorization
- Considering climate change and increased number/magnitude of storms
- Meeting and exceeding standards

Design Requirements for Risk Category III and IV Buildings

- ASCE 7-22 design methods
- Code provisions
- Wind load basics
- Detailing requirements

Managing Tornadic Wind Loads on Buildings

- Code provisions
- Wind loads
- Detailing requirements for high winds
- Materials and components

Managing Impact Loads on Buildings

- Basics of impact forces
- Wind borne debris
- Repair methods and guidelines
- High wind detailing

Case Studies and Examples

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Added Value:

Enhance your learning - Recording of these webinars will be available for attendees to stream online for two weeks after the program dates.
(live webinar attendance required to earn live webinar credit)

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HVAC Primer for Design Professionals

Tuesday, May 3, 2022 | 8:30 am - 4:30 pm CDT (incl. a 60-min break)

Tuition: \$319 per registrant, \$289 per registrant for two or more

Credits: Professional Engineers: 6.5 PDHs Architects: 6.5 HSW CE Hours
AIA: 6.5 LU|HSW International Code Council: .65 CEUs (Building)

Agenda

Reviewing Heating, Ventilation and Air Conditioning Principles

- Purposes of HVAC systems
- Examining sensible and latent heat
- Principles of heat transfer
- Reviewing heat transfer equations for liquids and gases

Conventional and Green Building Codes

- American Society of Heating, Refrigerating and Air Conditioning Engineers standards and guidelines
- State and local residential and commercial codes
- LEED and other "green" rating systems

HVAC System Design Considerations

- Building location and construction
- Making HVAC load calculations
- Unconditioned and conditioned spaces
- Single and multiple zone systems
- Sizing systems and using variable capacity systems

Evaluating HVAC Systems and Equipment

- Heat pumps: air source and ground source
- Chilled water
- Variable refrigerant flow systems
- Forced air systems
- Radiant heat systems
- Constant volume and variable air volume systems
- Distribution systems: piping and ductwork

HVAC System Controls

- Control system goals: maintain thermal comfort, reduce energy use, monitor performance
- Control system options

Reviewing Equipment and Techniques for High-Performance Buildings

- Additional goals of high-performance HVAC:
 - thermal comfort and improved indoor air quality
- Right-sizing equipment
- Variable load performance
- Shifting and reducing loads
- Heat recovery
- Commissioning
- Operation and maintenance
- Cogeneration

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Faculty

Designing to Withstand Tornadic Loads on Buildings

Vincent F. Fratinardo, P.E., S.E., RRC

Mr. Fratinardo is a civil/structural engineer and roof consultant. His over 20 years of experience includes civil and structural engineering analysis, design, construction administration, field investigation, and project management, and 13 years of experience specific to forensic engineering and the investigation and analysis of building damage and failures. Mr. Fratinardo has designed numerous new buildings, building additions, building renovations, and mechanical platforms and supports. He has designed and analyzed roof, wall and floor framing systems utilizing steel, concrete, masonry, and wood construction. Mr. Fratinardo has vast expertise in commercial, industrial, agricultural, municipal, educational and residential building damage investigations, including on-site investigations after 25 different tornado events, and Hurricanes Irene, Sandy, Matthew, Harvey, Irma, Maria and Florence. He has legal experience in depositions, arbitration hearings and trials. He has prepared and performed numerous continuing education presentations, including on an array of topics in forensic engineering, structural engineering and building codes for HalfMoon Education Inc., in multiple states since 2014. Mr. Fratinardo graduated from Michigan State University with a bachelor of science degree in Civil Engineering, and he also holds a master of engineering degree in Civil Engineering from Texas A&M University. He is a registered professional engineer in multiple states and a licensed structural engineer in Illinois.

HVAC Primer for Design Professionals

Blair Richardson, PE, CEM, CGD, CLEP, LEED *BL Companies*

Mr. Richardson has over 12 years of experience in building design and construction. His focus has been bringing energy efficiency, sustainability, and resiliency together in every project. Reducing energy use through strategic and targeted energy conservation measures Mr. Richardson have been able to show clients how sustainability can improve their bottom line utilizing tax credits, rebates, and incentives to reduce the cost of capital projects. He has a strong background in design-build and the integrated design process. Throughout his career he has worked with architects, engineers, contractors, commissioning agents, and owners to facilitate successful projects. Mr. Richardson earned his B.S. degree from the University of Maine in Mechanical Engineering Technology. He is a licensed professional engineer in five states, a Certified Energy Manager, and LEED accredited professional (in addition to other certifications). He serves on the board of directors for the Connecticut Chapter of ASHRAE, as well as heading several committees; is an active member of the National Society of Professional Engineers. Mr. Richardson is a past director for a regional non-profit; a corresponding executive committee member for the Housatonic Boy Scout Council; and an avid outdoorsman.

Additional Learning

Designing for Accessibility under ADA Standards and IBC

- Tues, Mar 29, 2022|8:30 am - 12:15 pm CDT
- Wed, Mar 30, 2022|8:30 am - 12:15 pm CDT

Practical Site Engineering

- Fri, April 1, 2022|8:30 am - 4:30 pm CDT

Parking Structure Design, Construction, and Maintenance

- Mon, April 4, 2022|8:00 am - 3:30 pm CDT

Adopting and Complying with the Zero Code 2.0

- Tues, April 5, 2022|8:30 am - 4:30 pm CDT

International Building Code 2021

- Tues, April 12, 2022|8:00 am - 4:00 pm CDT

IBC Building Classification, Occupancy and Mixed Occupancies

- Wed, April 13, 2022|9:00 am - 4:30 pm CDT

Designing for Fire Protection

- Tues, April 19, 2022|9:00 am - 4:00 pm CDT

Structural Forensic Engineering

- Tues, April 19, 2022|9:00 am - 3:50 pm CDT

For more information and other online learning opportunities visit:
www.halfmoonseminars.org