# Agenda

Presented by Robin M. Closs, S.E., P.E.

**Understanding Structural Loads** Types of structural loads General structural integrity Classifying buildings and structures Modifying and expanding existing structures

**Dead Loads and Soil Loads** Weight of materials and structure Soil loads

### Live Loads

Uniformly-distributed loads Concentrated loads Required live loads Impact loads

### Snow and Ice Loads

Calculating snow and ice loads Unbalanced, drifting and sliding loads

### Wind Loads

Wind speed, importance factor, exposure, enclosure Allowed procedures Basic definitions and requirements Main wind force resisting system

### **Earthquake Loads**

Scope and applicability Seismic ground motion values/geotechnical investigation Seismic design category Design criteria for bearing walls/building frame systems Design requirements for non-structural components

### Examples

Application of loads Design shortcuts



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### You'll be able to:

*Identify* various types of structural loads.

**Discuss** live loads, dead loads, soil loads and hydrostatic pressure.

**Calculate** rain, ice and snow loads on roofs.

Determine wind loads, factoring in wind speed, exposure, and enclosure classifications.

**Define** seismic design categories and review design criteria for bearing walls.

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## **Structural Design Loads** under the ASCE 7 Standard



**Receive** an overview of the various types of structural loads *Learn* how to design for live loads, dead loads, soil loads and hydrostatic pressure *Calculate* rain, ice and snow loads on roofs

### **Continuing Education Credits**

**Professional Engineers** 7.0 Continuing Ed. Hours .7 CEUs (Building) Architects **Contractors** 7.0 HSW Continuing Ed. Hours Non-Credit Continuing Ed. 7.0 AIA HSW Learning Units EDUCAT,



Columbia, MD - Friday, March 29, 2019

**Explore** wind load factors including wind speed, exposure and enclosure classifications **Receive** design guidance related to earthquake loads

International Code Council





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## Faculty

Robin M. Closs, S.E., P.E., has 15 years of experience as a structural engineer designing and analyzing everything from pipes to multistory buildings in fields such as commercial, power, government, institutional, nuclear, industrial, and residential. She traveled to Long Island in the aftermath of Hurricane Sandy as part of a Code Enforcement Disaster Assistance Response Team. Her engineering knowledge in timber, concrete, steel, masonry, aluminum, and light-gauge metal has helped her design new buildings, complete renovations and additions, demolish existing structures, produce mechanical platforms, and design appropriate repairs to roofs, walls, floors, and spillways. Ms. Closs is a past president of The Engineering Society of Buffalo and currently creates, writes, and edits their monthly newsletter. She also regularly spends time tutoring and greatly enjoys assisting young minds to see the benefits of engineering. She has also acted as the principal coordinator for 80-person volunteer teams, judged inventions, and mentored winners of engineering city competitions. Ms. Closs graduated from the Milwaukee School of Engineering with a BS degree in Architectural Engineering with a Structural Specialty. She is a licensed professional engineer in multiple states and as a structural engineer in Illinois, and she is certified as a NCEES Model Law Structural Engineer. Her goal is to meet client needs in a positive and timely fashion.

## **Seminar Information**

Sheraton Columbia Town Center Hotel 10207 Wincopin Circle Columbia, MD 21044 (410) 730-3900

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 - 5:00 pm

### Tuition

\$279 for individual registration \$259 for three or more simultaneous registrations.

### Included with your registration:

Complimentary continental breakfast and printed seminar manual. Registration does not include a copy of the code itself.

**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.

### Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

An audio recording of this seminar is available for \$289. Allow four weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

## **Additional Learning**

### Webinar Series

**Commercial Solar Peaker Batteries**  Commercial Solar Peaker Batteries, Part I Wed., Jan. 9, 2019, 11:00 AM - 3:15 PM CST Commercial Solar Peaker Batteries, Part II

Thurs., Jan. 10, 2019, 11:00 AM - 2:15 PM CST

### Proposal Writing

Fri., Jan. 11, 2019, 11:00 AM - 3:30 PM CDT

### **Technical Writing**

- Technical Writing Basics Mon., Jan. 14, 2019, 11:00 AM - 1:00 PM CST
- Planning Documents Mon., Jan. 14, 2019, 1:30 - 3:30 PM CST
- Writing Documents
- Tues., Jan. 15, 2019, 11:00 AM 1:00 PM CST • Revising and Editing Documents
- Tues., Jan. 15, 2019, 1:30 3:30 PM CST

### For more information

and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

### Fiber-Reinforced Composites

- Portland Cement and Masonry Thurs., Jan. 17, 2019, 11:00 AM - 1:00 PM CST
- Fiber-Reinforced Composites Thurs., Jan. 17, 2019, 1:30 - 3:30 PM CST
- Fiber-Reinforced Polymer (FRP) Composites Reinforcement

Fri., Jan. 18, 2019, 11:00 AM - 1:00 PM CST

- · Overview of Sandwich Materials and Structures
- Fri., Jan. 18, 2019, 1:30 3:30 PM CST

### Pumping and Piping Systems • Introduction to Pumps: Operation.

**Principles and Calculations** Thurs., Jan. 24, 2019, 12:00 - 2:00 PM CST

- Design Standards and Codes
- Thurs., Jan. 24, 2019, 2:30 3:30 PM CST • Piping System Components, Materials and Calculations
- Fri., Jan. 25, 2019, 12:00 2:00 PM CST • Handling Pump and Piping System Problems Fri., Jan. 25, 2019, 2:30 - 3:30 PM CST

### **Continuing Education Credit Information**

This seminar is open to the public and offers up to 7.0 continuing education hours to professional engineers and 7.0 HSW continuing education hours to architects in all states, except Florida architects.

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 7.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES. Courses approved by the AIA gualify 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 .7 CEUs in the specialty area of Building.

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.

## Registration

Columbia, MD - Friday, March 29, 2019

How to Register		Registrant Information
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		Additional Registrants:
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		Occupation:
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<b>Complete the entire form.</b> Attach duplicates if necessary.		Occupation:
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### Structural Design Loads under the ASCE 7 Standard

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