Agenda

Presented by James D’Aloisio, P.E., SECB, LEED AP

Structural Forensic Engineering
Poughkeepsie, NY - Thursday, March 12, 2020

Learning Objectives

You’ll be able to:

Discuss the importance of good design and code compliance.

Describe the legal and economic consequences of structural failures.

Explore the forensic engineering process, from failure documentation, through investigation and testing, to determination of causation.

Review the contents of forensic engineering reports.

Identify common causes of structural failures, including material deficiencies, design errors, construction errors, excessive loadings, deterioration and degradation.

Discuss the forensic engineering examination of steel, wood, concrete and masonry structures.

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Understand the role of the forensic engineer

Explore the forensic engineering process and review forensic engineering reports

Learn the causes of structural failures

Examining the legal and economic impacts of failures

Review the use of forensic engineering during litigation

Continuing Education Credits

Professional Engineers
7.0 Continuing Ed. Hours
Including 1.0 Ethics Hour

Architects
7.0 HSW Continuing Ed. Hours
7.0 AIA LU|HSW

Contractors
Non-Credit Continuing Ed.

Designing and Constructing to Prevent Failures
Importance of standards and codes
Design professional duties and the design process
Understanding the standard of care
Legal and economic impacts of failures
Purpose of forensic engineering

Understanding Causes of Structural Failures
Lessons learned from historic failures
Design errors
Defective construction
Material deficiencies
Excessive loadings
Deterioration and degradation

Understanding the Forensic Engineering Process
Documenting the failure
Conducting investigation and research
Test protocols and tests
Determining causation and responsibility
Learning from failure

Forensic Examination of Structures
Investigation of steel structures
Investigation of wood structures
Investigation of concrete structures
Investigation of masonry and building facades
Load testing and instrumentation of existing structures

Using Forensic Engineering Information
Examining the forensic engineering report
Impact of forensic engineering information on post-failure disputes
Use of forensic engineering information in mediation, arbitration and litigation
The forensic engineer as consultant, expert and witness

Ethical Issues in Structural Engineering
Design responsibilities that are exclusively duties for engineers
Practicing only in areas of competence
Adopting new materials/techniques: due diligence
Duty to disclose potential problems

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Faculty

James D’Aloisio, P.E., SECB, LEED AP Principal with Klepper, Hahn & Hyatt in Syracuse
Mr. D’Aloisio is a principal with Klepper, Hahn & Hyatt, a structural engineering, landscape architecture, and building envelope services firm in East Syracuse, New York. A graduate of Rensselaer Polytechnic Institute, Mr. D’Aloisio is a registered professional engineer in New York and Massachusetts, and he has been certified by the Structural Engineering Certification Board (SECB) since its inception in 2007. He is a member and past president (1997-1998) of the American Society of Civil Engineers (ASCE) Syracuse Section, and a member of the American Institute of Steel Construction (AISC), the American Concrete Institute (ACI), the National Society of Professional Engineers (NSPE), and the Structural Engineers Association of New York State (SEANYS). Mr. D’Aloisio received the Order of the Engineer at Syracuse University in 1997. His 30-plus years’ experience as a consulting structural engineer has primarily involved the design of new building structures, additions, and modifications, and analyses, assessments, and investigations of structures and facades. Specialties include detailing to minimize structural thermal bridging, the use of alternative structural systems and design approaches that can reduce the CO₂ emissions of structures and foundations. Mr. D’Aloisio has been involved in numerous special inspection projects, including developing statements of special inspections, performing inspections, and facilitating discrepancy resolutions. He has also performed over 150 structural forensic investigations, and he has presented over 300 times.

Seminar Information

Hyatt Place Poughkeepsie
2165 South Road
Poughkeepsie, NY 12601
(845) 632-3100

Tuition
$299 for individual registration
$279 for three or more simultaneous registrations.

Continuing Education Credit Information
This seminar is open to the public and offers up to 7.0 continuing education hours, including 1.0 ethics hour, to professional engineers and 7.0 HSW continuing education hours to architects in all states.

HalfMoon Education is deemed a New York-approved continuing education provider for engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §64.1[1](2)[j] and §64.6[j][2]).

The American Institute of Architects Continuing Education System has approved this course for 7.0 LU|HSW (Sponsor No. J885). Courses approved by the AIA qualify for New Jersey architects.

The American Institute of Architects Continuing Education System has approved this course for 7.0 ethics hours, to professional engineers and 7.0 continuing education hours to architects in all states.

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

Webinar Series
Designing for Climate Resilience: Current and Anticipated Climate Effects on Structures and Communities
Designing for Climate Resilience: Current and Anticipated Climate Effects on Structures and Communities
Thurs., Feb. 20, 2020, 11:00 AM - 12:30 PM CST
Assessing the Impact of Sea Level Rise, Changing Temperature and Changing Weather Patterns
Thurs., Feb. 20, 2020, 1:00 - 3:00 PM CST
Events on Structures and Communities
Fri., Feb. 21, 2020, 11:00 AM - 12:30 PM CST
Adapting Sites, Outdoor Spaces, New Construction and Existing Buildings to Withstand Extreme Weather Events
Fri., Feb. 21, 2020, 1:00 - 3:00 PM CST

Soil Mechanics and Slope Stability
Soil Investigation and Classification
Tues., Feb. 25, 2020, 11:00 AM - 1:00 PM CST
Determining and Increasing Bearing Capacity
Wed., Feb. 26, 2020, 11:00 AM - 1:00 PM CST
Determining and Increasing Slope Stability
Wed., Feb. 26, 2020, 1:30 - 5:00 PM CST

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Registration

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