

Agenda

Presented by Alan S. Tuck

Overview of Special Inspections

Defining special inspections
History of IBC code, BOCA code and special inspections
Role of special inspector, architect, engineer, building official
Statement of special inspections; other reports & paperwork
IBC 2015 – big changes in reference codes and standards

Soil and Foundation Inspections

Geotechnical engineering 101 – does the code require Geo report?
Subsurface investigations – verifying bearing capacity in the field
Geotechnical and soils special inspections required by the code
Soil testing & inspection in the field and lab according to the code

Concrete Special Inspections – ACI 318-14

Concrete placement, testing and special inspections
Concrete reinforcement, anchor rods, post-installed concrete anchors
First concrete code reorganization since 1971 (big changes!)
Periodic and continuous inspections according to the code
Where and when you sample concrete according to the code

Masonry Special Inspections - ACI 530, ACI 530.1, TMS 402, TMS 602

Submittal process and preconstruction mock-up panels
Inspection requirements – essential and non-essential structures
Failing masonry sands and mortar strengths – WHAT TO DO
ASTM C 270 and ASTM C 780 – finally an answer to the confusion

Structural Steel Construction – Special Inspections

Reference codes – AISC 360, AWS, RCSC, SJI, SDI
Welding code and special inspections
Bolted connections and special inspections
Types of bolted connections: snug-tight, pretensioned, slip-critical
Special inspections of cold-formed steel (light gage steel)

Special Inspections for Sprayed Fire-Resistant Materials (SFRM)

Thickness tests on SFRM – density tests - frequency
Bond strength – adhesion/cohesion tests – frequency
Condition of the Substrates before and after SFRM installation
Definition of high rise building – 150 PSF or 1,000 PSF bond strength

GLANCE AHEAD - NEXT IBC Code Cycle (Other Things that you may not know)

New updated wind speed maps and seismic maps in chapter 16
New structural observations required for high rise or risk category IV
Does the code require special inspections on steel stairs and railing?
Reduced web thicknesses in masonry units according to ASTM C 90
Metal buildings – full pen welds must be ultrasonically tested in shop
Is the proof rolling of site soils mandated by the IBC Code
When does failing masonry mortar really pass?

Special Inspections under the International Building Code Chapter 17

Norfolk, VA - Tuesday, August 20, 2019



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Learning Objectives

You'll be able to:

Review the history of special inspections, and discuss the role of special inspectors.

Explore geotechnical, soil and foundation inspections.

Examine concrete and masonry special inspections.

Review structural steel construction special inspections.

Study special inspections for sprayed fire-resistant materials (SFRM).

Look ahead to the next building code update cycle.



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7.0 AIA LU|HSW

International Code Council

.7 CEUs (Building)

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Faculty

Alan S. Tuck *Executive Director, Code Compliance and Training at Froehling & Robertson, Inc.*
Mr. Tuck has more than 50 years of experience in the materials testing and construction inspection industry. He has been a code influencer. In the early 1990s, he published a 47-page Construction Specifications Institute (CSI) monograph entitled “BOCA Special Inspection Services” as a learning and teaching tool for testing agencies, architects, engineers, municipalities, and building officials, etc. This document became the foundation for the original Chesterfield County, Virginia, special inspection program which today is known to be one of the best special inspection programs in the region. This CSI monograph impacted and assisted the development of special inspection programs of many other Virginia jurisdictions during the early days of BOCA and IBC. Today, Mr. Tuck is the building code “go to” guy when architects, engineers, contractors and building officials across the Mid-Atlantic have special inspection questions about their ongoing projects.

He started his career with Froehling & Robertson in 1964 as a materials technician and fulfilled many duties including senior field technician, radiographic assistant, drill rig operator, laboratory technician, and structural steel inspector, quickly being promoted to branch manager of the Roanoke office in 1966. Over the next few decades, Mr. Tuck also managed F&R’s operations in Norfolk, Lynchburg, and Chesapeake, Virginia. During this time, he was designated as the company-wide manager of construction materials testing services, working in F&R’s Richmond headquarters. In the late 1990s, Mr. Tuck took on company business development. His success in this realm led to Mr. Tuck being elevated to the role of vice president of business development. His responsibilities in this role included hiring, training, and supervising business development managers throughout the company’s Mid-Atlantic footprint. F&R was established in 1881 and is one of the oldest consulting engineering firms and testing agencies in the United States.

Mr. Tuck developed training courses related to special inspection requirements of the International Building Code (IBC) and the various statewide building codes in jurisdictions where F&R maintains operations, including Maryland, Virginia, District of Columbia and the Carolinas. He cultivated and expanded inter-company special inspections code training courses for F&R’s technicians, special inspectors and engineers. These technical code training courses formed the basis of F&R’s “Continuing Education Program” and “Lunch & Learn Series” which are comprised of building code training courses regarding soils, geotechnical engineering, concrete, masonry, sprayed fire-resistant materials, structural steel and many other disciplines. These courses are now offered to the entire Mid-Atlantic community of architects, engineers, and construction professionals as well as to associations, municipalities, school systems and a host of other market sectors. As F&R’s very first executive director of code compliance and training, Mr. Tuck has provided special inspections training and code training to hundreds of firms and thousands of professionals over the past decade and has dedicated this phase of his professional career to the study and instruction of various building code changes throughout different code cycles. He also is well versed in the major code changes of the “enforcer” codes such as AWS (welding), AISC (steel), ACI 318 (concrete), and ACI 530 (masonry), in addition to the latest revisions of the International Building Code (IBC) and statewide codes within F&R’s geographical region.

Here’s what past attendees have to say about the program and presenter Alan Tuck:
“Another excellent seminar! Alan is tops!” – *Architect*
“Excellent presenter. Very technically competent.” – *Professional Engineer*
“Alan has a wealth of experience with many specific examples of code issues.” – *Structural Engineer*

Seminar Information

Doubletree by Hilton
1500 North Military Highway
Norfolk, VA 23502
(757) 466-8000

Tuition
\$289 for individual registration
\$269 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.

Continuing Education Credit Information
This seminar is open to the public and offers 7.0 (HSW) continuing education hours to architects and 7.0 continuing education hours to engineers in most states, including Virginia. Educators and courses are not subject to preapproval in Virginia.
This event has been approved by the American Institute of Architects for 7.0 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA.

Architects and engineers seeking continuing education credit in other states will be able to apply the hours earned at this seminar, in most cases. Refer to specific state rules to determine eligibility.

The International Code Council has approved this program for .7 CEUs in the specialty area of Building.

This seminar offers a continuing education opportunity to construction contractors but has not been approved by any state contractor licensing entity.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire program. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series
Industrial Stormwater
• **Understanding the Federal Industrial Stormwater Program**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT
• **Examining Stormwater Pollutants and the Development of Total Maximum Daily Loads (TMDLs)**
Thurs., June 27, 2019, 1:00 - 2:00 PM CDT
• **Creating Stormwater Pollution Prevention Plans (SWPPPs)**
Fri., June 28, 2019, 11:00 AM - 12:00 PM CDT
• **Implementing Best Management Practices (BMPs), Sampling and Reporting**
Fri., June 28, 2019, 12:30 - 2:00 PM CDT

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

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

Registration

Special Inspections under the International Building Code Chapter 17
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How to Register	Registrant Information
Online: www.halfmoonseminars.org	Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
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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 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
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