

Agenda

Presented by Steven Halcomb, P.E., G.E.

Science of Structures and Soils

Typical loads on shallow foundations

- Gravity loads
- Lateral loads

Typical loads on walls

- Gravity loads
- Soil loads

Typical loads on slabs

Soil mechanics and effects on structures

- Soil properties
- Bearing capacity
- Soil settlement
- Effects of water, frost and freeze/thaw cycle

Foundation Features, Materials and Functionality

Design and construction of shallow foundations

- Continuous wall footings, column footings

Design and construction of slab foundations

Design and construction of basements and retaining walls

Design and construction of specialty features

Evaluating and Repairing Foundation/Slab Damage

Inspecting, monitoring and assessing damage

- Settlement
- Frost heave
- Expansive soils
- Shrinkage
- Subsurface erosion
- Subsidence
- Cracking
- Utility failures

Repairing foundations and slabs

- Excavations
- Piers, piles
- Underpinning
- Ground improvement

Evaluating and Repairing Wall Damage

Inspecting, monitoring and assessing damage

- Settlement
- Frost loading
- Expansive soils
- Shrinkage
- Poor drainage
- Utility failures

Repairing wall damage

- Piers, piles
- Soil tiebacks
- Carbon fibers
- Soldier beams
- Crack repair
- Secant-tangent walls
- Underpinning
- Reconstruction

**Foundation Damage and Repair:
Science, Materials and Techniques**
Anchorage, AK - Friday, May 10, 2019

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Learning Objectives

You'll be able to:

Explore typical loads on shallow foundations, walls, and slabs.

Review design and construction considerations for footings, walls, slab foundations, basements, retaining walls, and specialty features.

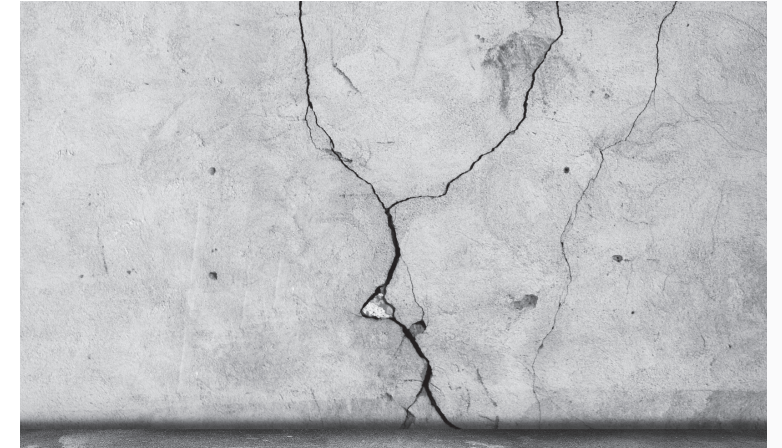
Learn how to evaluate foundation and wall damage and get tips on repairing damage.

Explore foundation and wall repair techniques such as underpinning, piers, crack repair, and reconstruction.



Foundation Damage and Repair: Science, Materials and Techniques

Anchorage, AK - Friday, May 10, 2019



Learn about soil mechanics and its effect on structures

Discuss foundation features, materials and functionality

Evaluate foundation and slab damage and understand repair techniques

Repair wall damage from frost loading, settlement, and utility failures

Continuing Education Credits

Professional Engineers

6.5 HSW PDHs

Architects

6.5 HSW PDHs

6.5 AIA HSW Learning Units



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Faculty

Steven Halcomb, P.E., G.E.
Senior Geotechnical Engineer, CRW Engineering Group, LLC.

Mr. Halcomb, has over 12 years of geotechnical, structural, marine, and cold regions engineering experience and is currently employed by CRW Engineering Group, LLC. He regularly oversees geotechnical efforts on projects ranging from several hundred thousand dollars to multi-million dollars in various environments including the arctic, subarctic, and marine. He has experience in shallow and deep foundation design, construction, and inspection, including pile driving analyzer, and he has worked in ideal and adverse conditions including liquefiable and expansive soils and frozen ground. In addition, his geotechnical knowledge includes site planning and explorations, laboratory testing, slope stability, geotechnical earthquake engineering, ground improvement, earth retaining structures, reinforced soil and geosynthetics, braced and unbraced excavations, pavement design, geotechnical instrumentation, construction testing, observation and monitoring, foundations in frozen ground, and thermal analyses. He is a member of the American Society of Civil Engineers and the Geo-Institute. He earned B.S. and masters degrees in Civil Engineering, an M.S. degree in Arctic Engineering, and an Earthquake graduate certificate from the University of Alaska Anchorage. He is currently pursuing a distance doctoral degree.

Seminar Information

Anchorage Marriott Downtown 820 West 7th Avenue Anchorage, AK 99501 (907) 279-8000	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 - 4:30 pm
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Tuition
\$289 for individual registration
\$269 for three or more simultaneous registrations from the same company at the same time.

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Complimentary continental breakfast and printed seminar manual.

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- 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.

Additional Learning

Webinar Series

- Structural Forensic Engineering**

 - **Introduction to Forensic Engineering Process**
Wed., March 27, 2019, 11:00 AM -1:00 PM CDT
 - **Causes of Failures and the Forensic Engineering Report**
Wed., March 27, 2019, 1:30 -3:30 PM CDT
 - **Forensic Examination of Structures and Use in Litigation**
Thurs., March 28, 2019, 11:00 AM -1:00 PM CDT
- Foundation Damage and Repair**

 - **Structure Loads, Soil Mechanics, Bearing Capacity and Geo-Environmental Hazards**
Thurs., March 28, 2019, 11:00 AM -12:30 PM CDT
 - **Foundation-Wall Design and Construction**
Thurs., March 28, 2019, 1:00 -2:30 PM CDT
 - **Assessment of Foundation-Slab Damage & Repair Alternative**
Fri., March 29, 2019, 11:00 AM -12:30 PM CDT
 - **Assessment of Foundation-Retaining Wall Damage & Repair Alternatives**
Fri., March 29, 2019, 1:00 -2:30 PM CDT
- Current Issues in Schoolyard Landscape Architecture**

 - **Current Issues in Schoolyard Landscape Architecture: Part 1**
Wed., April 24, 2019, 11:00 AM - 2:30 PM CDT
 - **Current Issues in Schoolyard Landscape Architecture: Part 2**
Thurs., April 25, 2019, 11:00 AM - 2:30 PM CDT

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

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 HSW PDHs engineers and architects in all states. Educators and courses are not subject to preapproval in Alaska.

This course 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.

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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.

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

Foundation Damage and Repair: Science, Materials and Techniques
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How to Register		Registrant Information
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Complete the entire form. Attach duplicates if necessary.		Email: _____
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		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:

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- ☐ CD/Manual Package for **\$289.00**.

(S&H included. Please allow five weeks from seminar date for delivery)

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