

Agenda

Presented by Robert G. Trazo, M.Sc., PE, GE, D.GE

Soil Investigation and Classification

Properties of soil

- Importance of recognizing soil properties
- Formation of soils
- Types of soils in California

Soil investigation on California construction sites

- Site reconnaissance
- Geology and visual observations
- Drilling and boring
- Test pits
- Establishing appropriate investigational methods
- Obtaining and reviewing geotechnical reports

Reviewing Hydraulic and Mechanical Properties of Soils

Soil permeability

Compressibility of soil

Soil hydraulics

- Saturation, hydraulic gradient, and conductivity

Drained and undrained shear strength

- Vertical and lateral earth pressure

Stress and failure in soils

Determining and Increasing Bearing Capacity

Calculating bearing capacity

Bearing capacity of shallow foundations

Bearing capacity of piers and piles

Increasing bearing capacity

- Draining and compaction
- Soil improvement

Determining and Increasing Slope Stability

Natural and engineered slopes

Reviewing basic concepts of slope stability

Understanding slope failures

Impact of surface water and groundwater

Examining slope stabilization methods

- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

California Soil Mechanics, Bearing Capacity and Slope Stabilization

Live, Interactive Webinar - Tuesday, April 13, 2021

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Learning Objectives

You'll be able to:

Identify properties of soils which impact their performance, including permeability, compressibility and soil hydraulics.

Describe common soils found on California construction sites, and investigate construction site conditions to determine the suitability of soils for construction projects.

Determine vertical and lateral earth pressure, and consider the causes of stress and failure in soils.

Calculate bearing capacity of foundations and explore techniques for increasing bearing capacity.

Examine the stability of natural and engineered slopes.

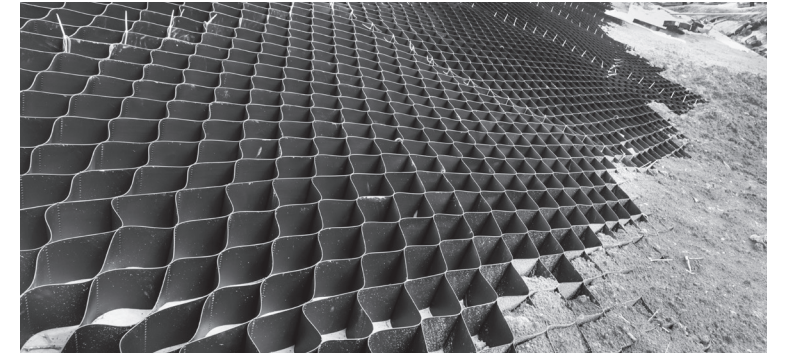
Explore slope stabilization techniques, including reinforcement and soil improvement.



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HalfMoon Education Online Learning California Soil Mechanics, Bearing Capacity and Slope Stabilization

Live, Interactive Webinar - Tuesday, April 13, 2021



Discuss properties of soil and identify soil types in California

Determine the bearing capacity of soils

Consider soil permeability and compressibility

Explore techniques for increasing bearing capacity

Examine drained and undrained shear strength of soils

Improve the stability of slopes

Continuing Education Credits

Architects

Non-Credit for CA Architects
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.65 CEUs (Sitework)

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*Continuing education not mandatory in California



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Faculty

Robert G. Trazo, M.Sc., PE, GE, D.GE *Southern California Geotechnical, Inc.*
Southern California Geotechnical, Inc. (SCG) specializes in providing great service to clients on commercial, industrial, residential, public, governmental and retail projects. The company has been structured since its founding in 1998 as a streamlined organization with hands-on involvement by the principals of the company. Because of that, SCG has been and continues to be a valued and trusted member of development design teams in Southern California. Mr. Trazo has 28 years’ experience in the geotechnical industry, forensic projects associated with the 1994 Northridge Earthquake and Malibu landslides to building large residential, municipal and bridge projects in Orange County to building large commercial, industrial and retail buildings throughout Southern California. Mr. Trazo has served as a part-time professor of Civil Engineering at California Polytechnic University, Pomona since 2003. Mr. Trazo has also taught the American Society of Civil Engineers (ASCE) Review Class for California Professional Engineer license exam students since 2001. In addition, Mr. Trazo has served the California Board of Professional Engineers since 2005 as a geotechnical exam development team member and as a geotechnical subject matter technical expert reviewing cases involving other geotechnical engineers in California. Mr. Trazo is involved with community service projects throughout Southern California.

Webinar Information

Log into Webinar 8:00 - 8:30 am PDT	Break 12:15 - 1:15 pm PDT
Morning Session 8:30 am - 12:15 pm PDT	Afternoon Session 1:15 - 4:30 pm PDT

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Additional Learning

Deep Excavations - Thurs., Mar. 4, 2021 8:30 am - 4:30 pm CST	Retaining Wall Design and Global Stability Analysis - Mon., Mar. 15, 2021 9:00 am - 5:00 pm CDT
Pruniversity: Plant Health Through Pruning - Thurs., Mar. 4, 2021 9:00 am - 5:00 pm CST	Engineered Lumber Design and Construction - Wed., Mar. 17, 2021 8:30 am - 5:00 pm CDT
Complying with Fire, Building and Mechanical Codes: Focus Fire Rated Ducts & Enclosures - Wed., Mar. 10, 2021 7:30 am - 2:50 pm CST	Introduction to Green Infrastructure - Wed., Mar. 17, 2021 11:00 am - 2:30 pm CDT - Thurs., Mar. 18, 2021 11:00 am - 2:30 pm CDT
Parking Structure Design, Construction and Maintenance - Thurs., Mar. 11, 2021 8:30 am - 4:30 pm CST	Bioretention System Design - Fri., Mar. 19, 2021 10:00 am - 12:00 pm CDT
Pumping and Piping Systems - Thurs., Mar. 11, 2021 11:00 am - 2:15 pm CST - Fri., Mar. 12, 2021 11:00 am - 2:15 pm CST	Urban Planning and Design for Electric Bikes and Scooters - Mon., Mar. 22, 2021 9:30 am - 4:30 pm CDT
How to Build a Sustainable Future - Thurs, Mar. 11, 2021 11:00 am - 2:15 pm CST	Considerations for Acquiring and Developing Brownfields Properties in the U.S. - Tues., Mar. 23, 2021 1:00 - 4:00 pm CDT
SketchUp for Building Professionals - Thurs., Mar. 11, 2021 11:00 am - 2:45 pm CST - Fri., Mar. 12, 2021 11:00 am - 2:45 pm CST	For more information and other online learning opportunities visit: www.halfmoonseminars.org

Continuing Education Credit Information
This webinar is open to the public and offers a non-credit continuing education opportunity to California architects, engineers, and landscape architects.
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 Sitework (Preferred Provider No. 1232).
The Landscape Architecture Continuing Education System has approved this course for 6.5 HSW PDHs. Only full participation is reportable to the LA CES.
Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Registration

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How to Register		Registrant Information Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ 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.
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