

**The** California Geotechnical Engineering Association



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# **DEEP FOUNDATIONS** *A MODULE IN THE UPDATED RGE EXAM STUDY SERIES* TUESDAY, MAY 7 | 10 AM – 1 PM | VIRTUAL

### **ABOUT THE UPDATED RGE EXAM STUDY SERIES**

CalGeo released its 10-module "Geotechnical Engineer License Review Course" in the late 1980s and early 1990s. Starting in Fall 2023, CalGeo has been releasing an update to this much used course through iterative live virtual webinars, each of which will be scheduled for two hours of lecture and one hour of Q&A.

#### **ABOUT THE DEEP FOUNDATIONS MODULE**

- Section 1: Intro-Deep Foundation Types and Design CriteriaSection 5: Pile GroupsSection 2: Axial Capacity DesignSection 6: Installation /<br/>Section 3: DowndragSection 3: DowndragSection 7: Load Testing
- Section 4: Lateral Capacity Design

#### ABOUT THE PRESENTER

Throughout his career, Jerko has managed risk by employing practical field experience, lessons of case histories, and ever-evolving analytical tools. Jerko has participated in numerous geotechnical design and consulting projects in the United States; North, Central, and South America; Europe; Africa; the Middle East; and Asia. In addition to ensuring code compliance, he continuously identifies opportunities for design optimization and develops costeffective, schedule-sensitive, sustainable geotechnical solutions. He is experienced in the design-build, engineer-procure-construct, and public-private partnership project delivery methods, including pre-bid design and progressive final design.

Recently, Jerko led the geotechnical design team for a freeway-widening project in California with 20+ new bridges and bridge widenings and 100+ new retaining walls, including shallow footing and pile-supported walls and mechanically stabilized earth and soil nailed walls, with a total construction cost of over \$1 billion. Conducted within a design-build framework, the project's accelerated schedule included collecting over 500 cone penetration tests and over 200 borings, while adhering to Caltrans and AASHTO standards and conducting value engineering of the pre-bid design. He also led a multi-firm team that completed a geotechnical and geologic study for an almost 7-mile-long, 20-foot-diameter effluent tunnel in California with a construction cost of over \$600 million. The comprehensive study for the tunnel, which extended through soil and rock and crossed a major fault zone, included over 15,000 feet of soil drilling and rock coring, as well as advanced in situ tests. A detailed fault study resulted in multimillion-dollar savings achieved by optimizing special tunnel liner within the fault zone.

Jerko is a member of an ASCE 61 code committee for Seismic Design of Piers and Wharfs and has co-authored and served as a co-instructor for the American Society of Civil Engineers (ASCE) continuing education course, Geotechnical Design of Port Facilities, over the last 4 years. Jerko also participated in a working group that developed and updated the PIANC Maritime Navigation Commission (MarCom) Working Group 153 Recommendations for the Design and Assessment of Marine Oil and Petrochemical Terminals.

\*If you have purchased the old RGE Exam Study Materials, you may receive a \$25 discount on updated modules. Contact info@calgeo.org if you need this code.

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ign Criteria Section 5: Pile Groups Section 6: Installation / Construction Considerations Section 7: Load Testing Section 8: Example Problems