CASE WESTERN RESERVE UNIVERSITY

CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT SEMINAR

DR. BRENT ROBINSON, PHD, PE (CWRU, BSCE '99)
Vice President and Executive Director of
Technical Affairs
GRL Engineers

Date: Thursday, March 5th, 2026
Time: 4:00pm – 5pm EST
Location: In person, Bingham Building, Vose #138
Zoom Link: Here

Two for One: Integrity Testing of Diaphragm Walls by Thermal Methods and Conference Networking Techniques

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Abstract: This seminar will mix the technical, and non-technical.
Part I: Distributed measurements of temperature in drilled or bored pile foundations to assess the integrity of the curing concrete has become increasingly common in the past decade. These methods have the advantage of detecting significant anomalies inside and outside of the reinforcing cage as the initial hydrating of the cement in the concrete generates heat. Conditional acceptance or further review of the foundation can be obtained within one to two days of casting. More recently, these techniques have been applied to diaphragm wall panels used in tunnels and other building construction. The expected trends in the temperature versus depth data are reviewed, indicating the consistency of measurements on the wall faces and cooler zones at the corner. An example showing detection of local concrete cover changes and potential inclusions or non-uniformities at the bottom of the panels are also presented. Presented in parts at DFI India 2023 and ICTG Sydney 2024.

Part II: Catch' em all! Attendance at professional and trade organizations annual meetings and educational events can be daunting, especially if you are a first-time presenter. This informal discussion shares different techniques to expand your research and career network.

Bio: Dr. Brent Robinson, PhD, PE (BSCE '99) joined GRL Engineers in 1999 as a research engineer, and Pile Dynamics in 2010 where he is a Vice President and Executive Director of Technical Affairs. In addition to his R&D activities in high and low strain foundation testing, Brent has tested and analyzed the foundations of multiple bridges, stadiums, offshore oil platforms and other structures, and frequently trains new users of equipment manufactured by Pile Dynamics, Inc. He completed his MS and PhD at North Carolina State University and is a frequent presenter at conferences and seminars in the United States and internationally.