



TECHNICAL PRESENTATION

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Assessing Drilled Shaft Capacity When Anomalies are Found

Presented by [Brandon Phetteplace, P.E.](#)
with [GRL Engineers, Inc.](#)

BIO: Brandon Phetteplace joined GRL Engineers in 2008 as a co-op student and became a project engineer upon his 2009 graduation from Case Western Reserve University with a B.S. in Civil Engineering. Brandon has a second B.S. in Physics, from the State University of New York at Fredonia.

He spent six years in the Midwest working for the Ohio branch office before opening the Texas branch office in 2015. He has performed deep foundation testing throughout the US and in over ten countries spanning from South America to Asia. He has achieved Expert level on the PDI-PDCA Proficiency Test and is a registered professional engineer in the states of Arkansas, Ohio, Oklahoma, Louisiana, and Texas.

ABSTRACT: GRL Engineers presented information on High Strain Dynamic Testing (ASTM D4945) of Drilled Shafts and ACIP foundations that have anomalies indicated by either Thermal Integrity Profiling (TIP) testing or Crosshole Sonic Logging (CSL) testing. GRL utilizes drop weight systems (APPLE) to impact the foundations and measure the stress wave response. From these responses, measured via strain gauges and accelerometers, the compressive capacity and integrity of the foundation element can be evaluated. Case studies in the Gulf Coast region were presented.

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