



## EDUCATION

### The University of Texas at Austin

- Bachelor of Science, Civil Engineering, 1999
- Master of Science, Civil Engineering, 2004
- Doctor of Philosophy, Civil Engineering, 2007

## PRACTICE AREAS

- Mass Concrete
- Pavement/Slab Evaluation
- Structural Condition Assessment
- Construction Troubleshooting
- Concrete Materials and Service Life Evaluation
- Concrete Materials Evaluation
- Forensic Investigation

## REGISTRATIONS

### Professional Engineer

- Arizona, District of Columbia, New Mexico, New Jersey, New York, Oklahoma, Texas, and Vermont

## HONORS AND AWARDS

- ACI Wason Medal for Concrete Materials, 2011
- TxDOT Top Research Innovation and Findings, 2005 - ConcreteWorks

## EXPERIENCE

Dr. Poole focuses on investigation of pavement and structural issues, concrete materials evaluation and forensics, mass concrete placements, and construction troubleshooting.

Dr. Poole has over 15 years of progressive experience, from serving as a construction materials technician, to working for a heavy civil contractor (Kiewit Texas) on a variety of bridge and paving

projects. Dr. Poole also worked for WJE and CTLGroup, where he managed large, complex forensic investigations. He has served as an expert witness and provided litigation support services.

Dr. Poole has co-authored multiple peer reviewed journal articles on concrete materials, and regularly presents at technical conferences.

## PROFESSIONAL SERVICE

### American Concrete Institute

- Committee Member – 228-B (Visual Inspection), 207 (Mass and Thermally Controlled Concrete), 301 Subcommittee 8 (Mass Concrete), and 305 (Hot Weather Concrete)
- ACI Northeast Texas Chapter: Served as Vice President, Secretary, Director

### Structural Engineers Association of Texas

- Served as President, Vice President, Secretary, – Austin Chapter, State Director

### American Society of Civil Engineers (ASCE) - Member

### Expert Reviewer

- ACI Materials Journal

## REPRESENTATIVE PROJECTS

### Mass Concrete

- Blue Plains Tunnel, Washington, DC: Thermal analysis, design of cooling pipe system, and thermal control plans for underwater tremie placements
- Ruskin Dam: Thermal control plan, 3D creep adjusted finite element analysis, cooling pipe design, and concrete mixture development dam rehabilitation project
- TexRail, Fort Worth, TX: Thermal analysis and thermal control plans for bridge footings, abutments, columns, and caps

### Pavement / Slab Evaluation

- Industrial Warehouse, Yakima, WA: Investigation of slab cracking, plastic shrinkage cracking, and other slab distress; litigation support
- Elementary School, Dallas/Fort Worth area, TX: Evaluation of floor covering failure related to excessive moisture vapor emissions, litigation support
- Storage Warehouse, Fort Worth, TX: Investigation of delaminated concrete floor slab related to air entraining and steel trowel finishing

- Brewery, Eureka, CA: Peer review of warehouse slab design

### Structural Condition Assessment

- Thomas C. Ferguson Power Plant, Llano County, TX: Structural evaluation of existing concrete intake structure, laboratory testing, non-destructive evaluation (GPR, Half Cell Potential), development of repair recommendations.
- Napanee Generating Station: Non-destructive evaluation of cold joints and consolidation issues using impulse response, GPR testing; repair design
- Wire Manufacturing Plant: Condition survey, laboratory testing and conceptual repairs of precast concrete building

### Construction Troubleshooting

- Diesel Hydrotreater, Shreveport, LA: Investigation of compressor foundation distress related to epoxy leveling compound
- Pump Station, Dallas, TX: Evaluation of fire damage to concrete volute pump
- Robert Rowling Building, Austin, TX: Evaluation and repair design of construction issues; construction engineering.

### Concrete Materials and Service Life Evaluation

- Wind Turbine Project, Western KS: Performed Evaluation of strength and materials-related-distress of wind turbine foundations
- Wind Turbine Project, West Texas: Investigation of low strength concrete; litigation support
- Javelina Wind Project, South Texas: Evaluation of service life in high sulfate environment using Stadium®
- Ready Mix Supplier Mix, Austin, TX: Investigation of set time problems due to cement, fly ash and admixture interaction using isothermal calorimetry.
- NIH Parking Garage, Washington, DC: Evaluation of corrosion damage, service life calculation, and repair design
- Wastewater Tunnel, Austin, TX: Laboratory investigation, field assessment and litigation support regarding failure of a calcium-aluminate repair mortar for rehabilitation of an existing wastewater sewer system