



W. ROBERT THOMPSON, III, P.E.  
Senior Principal Engineer



### Professional Experience

Joined DBA 2005

Total years of experience: 26

Adjunct Instructor, Auburn University (2012)

Geotechnical Consultant, TTL, Inc., Montgomery, Alabama (1999-2005)

Geotechnical Consultant, Law Engineering and Environmental Services, Inc., Birmingham, Alabama (1994-1999)

Graduate Research Assistant, Department of Civil Engineering, Auburn University, Alabama (1992-1994)

### Education

M.S., Civil Engineering, Auburn University, 1994

B.S., Civil Engineering, Auburn University, 1988

### Professional Licensure and Certifications

Licensed Professional Engineer in 8 states

### Fields of Expertise

Management of complex geotechnical projects; Pursuit, management, and execution of geotechnical designs for Design-Build project delivery

Design, construction, and load testing of deep foundations; Analysis of pile group behavior

Site investigation and in-situ testing; Laboratory testing and analysis of soil and rock

Slope stability and excavation stability analyses in soil and/or rock

### Major Projects

**US 231 Emergency Slide Repair** – Morgan County, AL (2020) – Geotechnical Engineer for emergency landslide repair on major US route south of Huntsville, Alabama. Designed rock-socketed drilled shaft foundations for a bridge to replace almost 1000 feet of roadway that was lost. Evaluated the cause of the slide and several alternate repair solutions that included considerations of cost, complexity, and schedule impacts in order to determine the preferred solution to re-open the major route quickly while providing a permanent solution that would remain in service after future slope movements. A robust instrumentation system was designed and installed to monitor the drilled shafts and the slope to provide data for evaluating structure safety for future slides.

**I-10 Mobile River Bridge** – Mobile and Baldwin Counties, AL (2015-2019) – Project included new high elevation cable-stayed structure with seven miles of new Bay Way bridges. Served on the Owner Representative team, performing preliminary axial/lateral resistance analysis for deep foundations, writing/reviewing technical provisions, and assisting with management and response to proposers' questions. Designed large scale pre-bid load test program involving static, dynamic, rapid and bi-directional load cell testing of concrete piles, drilled shafts and steel pipe/h-piles.

**Maryland Purple Line** – Montgomery and Prince Georges Counties, MD (2016-2020) – Designed and managed geotechnical designs for over 200 retaining walls on 16-mile design-build light rail transit project. Wall types included Mechanically Stabilized Earth, Cast-in-Place, and Soldier Pile (both cantilever and anchored) with drilled foundations.

**Foothills Parkway Bridge No. 2** – Townsend, TN (2010) – Designed rock bearing and micropile supported bridge foundations to resist forces from soil movements on colluvial slope above bedrock and minimize impact to surrounding environment.

**LPV-145 Levee Project and GIWW Closure Project** – New Orleans, LA (2009) – Performed static and driveability analyses for driven piles (open-ended pipe piles, H-piles) and evaluated pile load test data

**I-15 Beck Street Bridge** – Salt Lake City, UT (2008) – Designed drilled shaft and driven pile foundations to include resistance for liquefaction and lateral spread effects. Large diameter shafts (8 feet) were utilized and installed using oscillator excitation methods.

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**Cumberland River Pedestrian Bridge** – Nashville, TN (2007) – Performed stability analyses and foundation design for micropile supported bridge pier foundation adjacent to the river.

**Christopher S. Bond Bridge** – Kansas City, MO (2006-2008) – Supervised field exploration and performed geotechnical design of rock-socketed drilled shaft foundations for cable-stayed Missouri River crossing.

**Professional Memberships**

ADSC: The International Association of Foundation Drilling (Technical Affiliate)  
Deep Foundations Institute (Member)  
Pile Driving Contractors Association (Engineer Affiliate)  
Bronze Star Medal – U.S. Army, Operation Desert Storm (1991)

**Selected Publications and Presentations**

Brown, D.A. and Thompson, W.R. (2015). NCHRP Synthesis 478, Design and Load Testing of Large Diameter Open-Ended Driven Piles, Transportation Research Board, National Academies, Washington, D.C.

Thompson, W.R. (2012). "ADSC Research Project Update: Rock Sockets in the Southeastern U.S." Proceedings of ADSC EXPO 2012, San Antonio, Texas, March 15, 2011.

Thompson, W.R., Brown, D.A., and Hudson, A.B., (2012). "Load Testing of Drilled Shaft Foundations in Piedmont Rock, Lawrenceville, GA," Report for the ADSC Southeast Chapter, January 2012.

Brown, D.A. and Thompson, W.R. (2011). NCHRP Synthesis 418, Developing Production Pile Driving Criteria from Test Pile Data, Transportation Research Board, National Academies, Washington, D.C., 505p.

Axtell, P.J., Thompson, W.R., and Brown, D.A. (2009). "Drilled Shaft Foundations for the kclCON Missouri River Bridge," *Deep Foundations Institute 34th Annual Conference on Deep Foundations*, Conference Proceedings 2009, October 21-23, 2009, Kansas City, Missouri, pp. 3-12.

Brown, D.A. and Thompson, W.R. (2009). "Drilled Shaft Performance in Cemented Calcareous Formations in the Southeast United States," *2009 International Foundation Congress and Equipment Expo*, Contemporary Topics in Deep Foundations, Geotechnical Special Publication No. 185, ASCE, pp. 119-126.

Brown, D.A. and Thompson, W.R. (2009). "Performance of Drilled Shaft Foundations in Limestone, Nashville, Tennessee," *Foundation Drilling*, Vol. 30, No.4 May 2009.

Brown, D., Dapp, S., Thompson, R. and Lazarte, C. (2007). "Design and Construction of Continuous Flight Auger Piles," *Geotechnical Engineering Circular No. 8*, Federal Highway Administration Office of Technology Application, Office of Engineering/Bridge Division, 294p.

Pierson, M., Parsons, R.L., Han, J., Brown, D.A. and Thompson, W.R. (2008). "Capacity of Laterally Loaded Shafts Constructed Behind the Face of a Mechanically Stabilized Earth Block Wall," Report for the Kansas Department of Transportation.

Thompson, W.R., Held, L., and Saye, S. (2009). "Test Pile Program to Determine Axial Capacity and Pile Setup for the Biloxi Bay Bridge," *DFI Journal*, Volume 3, No. 1, May 2009, Deep Foundations Institute, pp. 13-22.