

Paul J. Axtell, P.E.
Dan Brown and Associates, PC

EDUCATION

- MS 2001 Civil Engineering (Geotechnical), University of Texas
- BS 1999 Civil Engineering, University of Missouri

EXPERIENCE AND EMPLOYMENT RECORD

- 2007-present: Senior Engineer & Principal, Dan Brown and Associates, Overland Park, KS
- 2002-2007: Geotechnical Engineer, U.S. Army Corps of Engineers, Kansas City, MO
- 2001-2002: Geotechnical Engineer, Fugro Consultants, Houston, TX
- 2000-2001: Research Assistant and Consultant, University of Texas, Austin, TX

PROFESSIONAL

- American Society of Civil Engineers
- Deep Foundations Institute (Drilled Shaft Committee)
- American Association of State Dam Safety Officials
- Professional Engineer: Kansas 18118; Missouri 2008014530; Minnesota 48089

PROFESSIONAL INTERESTS AND SUMMARY

Paul Axtell is accomplished in geotechnical engineering, foundation design, testing and construction. His experience includes foundation design for structures such as large bridges, transmission lines, commercial and industrial structures, and earth dams. Mr. Axtell is proficient at analytical methods for deep foundations, shallow foundations, earth retaining structures, earth slopes and seismic loading. His experience also includes ground improvement techniques such as jet grouting and deep mix methods, geosynthetics for soft soil construction, settlement analysis for large structures, and slope failure investigations. Mr. Axtell's field experience includes full-scale load testing using conventional top-down static, Osterberg load cell, and Statnamic methods in addition to dynamic monitoring using PDA and associated CAPWAP. He is knowledgeable in many geotechnical computer software applications, including gINT, UTEXAS4, LPILE, GROUP, SHAFT, APILE, SLIDE, and GRLWEAP.

SELECTED RECENT PUBLICATIONS

- Axtell, P.J. and Brown, D.A. (2011) "Case History: Foundations for the New Mississippi River Bridge, St. Louis," *J. of Deep Foundations Institute*, Vol. 5, No. 2, pp. 3-15.
- Brown, D.A., Axtell, P.J., and Kelley, J. (2011) "The Alternate Technical Concept Process for Foundations at the New Mississippi River Bridge, St. Louis," *Proceedings: Deep Foundations Institute 36th Annual Conference*, pp. 171-177.
- Axtell, P.J., Stark, T.D., and Dillon, J.C. (2010) "Peak and Post-Peak Shear Strength of Cement-Bentonite," *J. of Deep Foundations Institute*, Vol. 4, No. 1, pp. 59-65.
- Axtell, P.J., Brown, D.A., and Thompson, W.T (2009) "Drilled Shaft Foundations for the kclCON Missouri River Bridge," *Proceedings: Deep Foundations Institute 34th Annual Conference*, pp. 3-12.
- Axtell, P.J., Stark, T.D., and Dillon, J.C. (2009) "Strength Difference between Clam-Shell and Long-Reach Excavator Constructed Cement-Bentonite Self-Hardening Slurry Walls," *GSP No. 187, ASCE*, pp. 297-304.
- Stark, T.D., Axtell, P.J., Lewis, J.R., Dillon, J.C., Empson, W.B., Topi, J.E., and Walberg, F.C. (2009) "Soil Inclusions in Jet Grout Columns," *J. of Deep Foundations Institute*, Vol. 3, No. 1, pp. 33-44.

- Axtell, P.J. and Stark, T.D. (2008) "Increase in Shear Modulus by Soil Mix and Jet Grout Methods," *J. of Deep Foundations Institute*, Vol. 2, No. 1, pp. 11-21.
- Axtell, P.J., Loehr, J.E., and Jones, D.J. (2006) "Case History: Multiple Axial Static Tests on a Drilled Shaft Embedded in Shale," *Proceedings: Deep Foundations Institute 31st Annual Conference*, pp. 201-210.
- Stokoe, II, K.H., Axtell, P.J., Rathje, E.M., and Valle, C. (2005) "In Situ Measurement of Small-Strain Stiffness in Soil Beneath a Footing with Varying Static Loads," *GSP No. 134*, ASCE, pp. 1-16.
- Axtell, P.J., Owen, J.W., and Vollink, S.D. (2004) "Increase in Pile Capacity with Time in Missouri River Alluvium," *Proceedings: Fifth International Conference on Case Histories in Geotechnical Engineering*, April 13-17, 2004, New York, NY.
- Stokoe, II, K.H. and Axtell, P.J. (2004) "In Situ Measurements of Changes in Small-Strain Soil Stiffness Beneath a Footing with Varying Static and Dynamic Loads," *Proceedings: Eleventh International Conference on Soil Dynamics and Earthquake Engineering*, January 7-9, 2004, Berkeley, CA.
- Loehr, J.E., Axtell, P.J. and Bowders, J.J. (2000) "Reduction of Soil Swell Potential with Fiber Reinforcement," *Proceedings: GeoEngineering Conference 2000*, Melbourne, Australia.

SELECTED RECENT CONSULTING PROJECTS

Hurricane Deck Bridge Replacement, Lake of the Ozarks, MO; 2011 – Present; Lead Geotechnical Designer; Serving as Lead Geotechnical Designer for the replacement bridge utilizing drilled shaft foundations in dolostone in 80ft deep water. Other foundations being used for the bridge include driven H-piles and spread footings bearing on bedrock.

New Mississippi River Bridge; Hastings, MN; 2010 – Present; Lead Geotechnical Designer; Serving as Lead Geotechnical Designer for the tied arch bridge foundations and column-supported embankment (CSE). Bridge foundations include large diameter open-ended pipe piles with axial and lateral Static Tests, drilled shafts with rock sockets in hard limestone, and spread footings. CSE includes driven pipe piles and a geogrid-reinforced load transfer platform for compressible soil settlement mitigation.

New Mississippi River Bridge; St. Louis, MO; 2009 – 2010; Geotechnical Designer; Served as a Geotechnical Designer of Alternate Technical Concept for cable-stayed river bridge employing large diameter drilled shafts and world record load test in St. Louis.

Bond Memorial Bridge; Kansas City, MO; 2008 – 2010 Geotechnical Designer; Served as a Geotechnical Designer for this cable-stayed Missouri River crossing, with drilled shaft foundations socketed into rock, base-grouted drilled shafts tipped in sand, and driven H-piles.

St. Croix River Bridge; Stillwater, MN; 2009 – Present; Geotechnical Designer; Serving as Geotechnical Designer, responsible for the design of the pre-bid phase load tests on this planned extradosed bridge in an environmentally sensitive area.

TH 52 Lafayette Bridge Replacement over the Mississippi River; St. Paul, MN; 2009 – 2010; Geotechnical Designer; Served as a Geotechnical Designer of the steel box girder bridge for the replacement of the TH 52 bridge over the Mississippi River. The main span will be supported on large diameter open-ended pipe piles driven to rock.