

R. Craig Henderson, Ph.D.



Professor

Highest Degree University: University of Tennessee Department: Civil & Environmental Engineering

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More Information

Educational Background:

Ph.D., Civil Engineering, University of Tennessee, 1994

M.S., Civil Engineering, University of Tennessee, 1987

B.S., Civil Engineering, University of Tennessee, 1986

Current Publications

1. **Henderson, R.C.**, Kidwell, T. and Kerley, R, Huff, T. (accepted for publication) "Non-linear Investigation of Plastic Hinge Formation in Steel and Concrete Piles", *Practice Periodical on Structural Design and Construction*.
2. **Henderson, R.C.**, Mohr, B., Bane, D. and Bennett, R, (submitted for review) "Material and Structural Properties of Light weight Masonry Grout", *ACI Materials Journal*.
3. **Henderson, R.C.**, Yeager, Matt, (in progress) "Experimental vs. Analytical Comparison of Out-of-plane Pressure Loads on Masonry Infills", for submission to *The Masonry Journal*.

Selected Publications

1. ACI 530 Masonry Standards Joint Committee (2011 - 2014). *Building Code Requirements for Masonry Structures* , [Henderson served as a member of the ACI 530-08 and ACI 530-11 Executive Subcommittee, Main Subcommittee, Flexure and Axial Load Subcommittee, and Chair of the Infill Subcommittee.]
2. **Henderson, R. C .**, Porter, M.L., Jones, W.D., Burdette, E.G. (2006). "Prior Out-of-plane Damage on the In-plane Behavior of Masonry Infilled Frames" *The Masonry Journal* , TMS, 24 (1), 71-82.
3. **Henderson, R. C .** , Lowhorn, D.E., Tindall, W.R., Larimore, D.L. (2006). "Designing Interactive Instructional Tools to Serve Both Students and Instructors – a Case History", *Computers in Education Journal* , ASEE, 16 (4), 35-49.
4. **Henderson, R. C .**, Fricke, K. E., Jones, W. D., and Beavers, J. E., (2003). "Summary of a Large- and Small-scale Unreinforced Masonry Test Program", *Journal of Structural Engineering*, ASCE, 129 (12), 1667-1675.

Research

1. Principle Investigator (2014 to present), Material and Structural Properties of Lightweight Grout.
2. Principle Investigator (2010-2013), Steel and Concrete Pile Bent Connections for Achieving Plastic Moment Capacity in High Seismic Zones.
3. Principle Investigator (2004-2011), Development of ACI 530 Code Equations for Masonry Infilled Frame (ACI 530 Masonry Standards Joint Committee).

Teaching

- CEE 2110 Engineering Mechanics
- CEE 3110 Mechanics of Materials
- CEE 3320 Structural Mechanics
- CEE 4310 Structural Steel Design
- CEE 4320 Reinforced Concrete Design
- CEE 4360 / 5360 Advanced Concrete Design
- CEE 4700 / 5700 Reinforced Masonry Design
- CEE 7810 Structural Dynamics and Earthquake Engineering

Recent Consulting

1. Forensics Investigations and Expert Witness (2012 to present), Structural Investigations of Failure Behavior.
2. Inspired Designs, Inc. (2012 – 2013), Structural capacity investigation of new concrete building system.

Expertise

- Structural Dynamics and Earthquake Engineering
- Structural Testing and Modeling
- Building Materials (Concrete, Steel, Masonry)