



Erik L. Nelson, Ph.D., P.E., President
 enelson@architecturalengineers.com
 www.nae-us.com
 1-877-850-8765

FIRM SERVICES

Multi-Disciplined Engineering & Forensics, Architecture, Industrial Hygiene & Safety, Fire Scene Investigation, Surety Consulting, Animation & CAD, Computer Forensics, Cost Estimating, HVAC, Roofing, Expert Witness, Litigation & Subrogation Resource, and Consulting.

AREAS OF EXPERTISE

Residential & commercial buildings and structures, cause & origin, analysis & design. Investigations of concrete, masonry, post-tensioned concrete, steel, wood, and other materials. Assessments of structures and equipment that have sustained damage from perils such as accidents, collapses, construction defects, design errors, expansive soils, explosions, failures, fires, flood, hail, hurricanes, lightning, mold, plumbing leaks, sinkholes, tornadoes, vehicular impacts, veneer/cladding failures, water intrusion, windstorms and wood rot.

EDUCATION

Ph.D. in Civil Engineering
 The University of Texas at Austin, 1986

M.S. in Architectural Engineering
 The University of Texas at Austin, 1983

B.S. in Architectural Engineering
 The University of Texas at Austin, 1981

EXPERIENCE

Founder of Nelson Architectural Engineers, Inc. and President of multidiscipline forensic engineering firm with offices in Texas and Florida. Over 25 years of experience including architectural engineering, structural engineering, forensic engineering, construction administration and consulting for commercial, and residential buildings and structures.

Consulting Projects: Damage and safety assessment to distribution center in Moscow, Russia due to settlement from subway tunnel excavating, damage assessments for structures in the Katrina Canal Breaches Consolidated Litigation Levee, design of framing & foundation for 16,000 sq. ft. residence, lightning and fire damage assessment to recreational headquarters building, hurricanes Katrina and Rita assessments-wind and flood, Frank Lloyd Wright's Gillin residence rehabilitation, structural repair to wood framing in multi-story townhomes, Greek church dome architectural and structural repair, Cultural Center stucco veneer assessment, catastrophic roof failure to Catholic church from hurricane Dennis, beverage processing center post-collapse structural & paving enhancements, food distribution center floor failure re-design, Ft. Worth assisted living facility structural and foundation design, automotive repair building masonry restoration due to wall-tie corrosion, Ft. Worth commercial building foundation repair, Turtle Creek high-rise apartments and

- EXPERIENCE (*cont.*) condominium designs and peer review. Served as appraiser and umpire for insurance claims.
- LICENSURE Licensed Professional Engineer in States of Texas, Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Kansas, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia and Wisconsin.
Registration with the National Council of Examiners for Engineering and Surveying.
Registration with the Structural Engineering Certification Board (SECB).
Qualified Inspector for the Texas Windstorm Insurance Association (TWIA) Building Code for Windstorm Restraint Construction.
ATC-45 Trained (Safety Evaluation of Buildings after Windstorms and Floods).
- NAE LICENSURE *NAE has engineers licensed to practice in over 35 States.*
Licensed Investigation Company with Texas Private Security Board (License No. A12514).
Texas Licensed Mold Assessment Company (License No. ACO0189).
Texas Licensed Asbestos Assessment Company (License No. 200155).
- CONTINUING EDUCATION Approved instructor of Continuing Education Professional Credits with the Texas Department of Insurance and the Oklahoma Department of Insurance. NAE is an approved provider of *Common Perils*[®] courses registered for continuing education credit. TDI Provider No. 2455. ODI Provider No. A140. FDI 364575.
- PROFESSIONAL MEMBERSHIPS AND ACTIVITIES UT Civil, Architectural and Environmental Engineering Young Alumnus Selection Committee (2007, 2008)
External Advisory Committee for The University of Texas Civil, Architectural and Environmental Engineering (2005-2008)
Topping Out Selection Committee (2007)
Member Structural Engineers Association of Texas (SEAOt)
North Texas SEAOt Senior Chapter Director (2005)
Past President; Past Vice President, Secretary, Newsletter Editor and Treasurer of SEAOt
State Director of SEAOt (2002); North Texas SEAOt Chapter Director (2003-2005)
Advisory Board for SMU Environmental & Civil Engineering (2002-2004)
Peer Review Committee Oklahoma State University
Member Architectural Engineering Institute
Member American Society of Civil Engineers (ASCE)
Member American Concrete Institute (25 year member)
Member Foundation Performance Committee
Member Post-Tensioning Institute
Member The Masonry Society
Corporate Member International Conference of Building Officials
Tau Beta Pi Engineering Honor Society
SMU Mentor Program
Associate Member ACI Committee on Design of Slabs on Grade
Associate Member ACI Committee Residential Concrete

SEMINARS/
PROFESSIONAL LECTURES

“Common Perils®,” Presented at The University of Texas at Austin, October 29, 2007.

“Common Perils®,” Presented at The University of Texas at Austin’s Forensic Engineering CEU Symposium, Austin, TX, February 23, 2007.

“Investigating Common and Uncommon Perils,” Presented at The University of Texas at Austin, November 26, 2006.

“Common Perils® and Engineering Investigation,” Sixth Annual Texas Insurance Law Developments, Sponsored by Thompson Coe, October 12, 2006.

“Foundation and Other Case Studies,” Presented at The University of Texas at Austin’s Forensic Engineering CEU Symposium, Austin, TX, February 17, 2006.

“Forensic Engineering,” Presented at The University of Texas at Austin, November 14, 2005.

“Case Studies on Construction Defects and Large Property Losses,” Presented at the TIIAA State Conference, Grapevine, TX, March 4, 2005.

“Construction Defect Claims: Methodology, Management and Mitigation,” Presented at the NASP Seminar – Subrogation in the Fast Lane, Atlanta, GA, November 9, 2004.

“Forensic Engineering,” Presented at The University of Texas at Austin, October 25, 2004.

“Case Studies of the Cause and Origin of Fungal Growth in Residential and Commercial Structures,” and “Masonry Veneer Failure: A Case Study of Wall-Tie Corrosion,” Presented at The University of Texas at Austin, November 3, 2003.

“Engineering Investigations of Common/Uncommon Perils,” Lecture for Continuing Education for Insurance Adjusters, Course No. 38390CG010 (Registered with Texas Department of Insurance).

“Case Studies of the Cause and Origin of Fungal Growth in Residential and Commercial Structures,” Presented at the ASCE 3rd Forensics Conference, San Diego, California, October 20, 2003.

“Perspectives on The Mold Issue: Case Studies,” Presented at Southern Methodist University’s Forensic Engineering Series, February 7, 2003.

“Mold Case Studies,” Presented at Mold: A Problem of Biblical Proportions sponsored by Goins, Underkofler, Crawford & Langdon and Nelson Architectural Engineers, Inc., October 31, 2002.

“Foundation Engineering - Case Studies,” Presented at Southern Methodist University’s Forensic Engineering Series, September 20, 2002.

SEMINARS/
PROFESSIONAL LECTURES (cont.) "Indoor Air Quality, Molds and Industrial Hygiene- Case Studies," Presented at Southern Methodist University's Forensic Engineering Series, June 28, 2002.

"Managing Consultants: Forensic Investigations," Presented to the 14th Annual Construction Law Conference, Austin, Texas, March 8, 2001, with J. W. Nassen.

"Case Studies in Forensic Engineering," Presented at The University of Texas at Austin, October 18, 2000, with K. Lee; October 8, 2001 with S. Verhulst and October 14, 2002 with S. Verhulst.

"Introduction to Forensic Engineering: Case Studies," Presented to Structure's Seminar at The University of Texas at Austin, October 18, 2000.

"Forensic Engineering," Presented at The University of Texas at Austin, February 26, 1999, with D. Ahuja.

"Forensic Engineering," Presented at The University of Texas at Austin, October 15, 1997.

"Residential Foundation Design," Presented at the Fourth Annual Building Professional's Institute at The University of Texas at Arlington, January 8, 1996.

PUBLICATIONS "The Source of the Problem", Erik L. Nelson, Ph.D., P.E., M.ASCE, ASCE Civil Engineering January 2007 Issue with D. Ahuja, M.S., P.E., S. Verhulst, P.E., M.ASCE and E. Criste, M.ASCE.

"The Impact of Market Demands on Residential Post-Tensioned Foundation Design: An Ethical Dilemma," ASCE 4th Forensics Conference: Forensic Engineering/ Proceedings of the Fourth Congress, Cleveland, Ohio, October 6-9, 2006, with B. Barrett and K. Lee.

"Roof Collapse: Forensic Uplift Failure Analysis," ASCE 4th Forensics Conference: Forensic Engineering/ Proceedings of the Fourth Congress, Cleveland, Ohio, October 6-9, 2006, with D. Ahuja, S. Verhulst, and E. Criste.

"Roof Collapse: Forensic Uplift Failure Analysis," Erik L. Nelson, Ph.D., P.E., M. ASCE, D. Ahuja, M.S., P.E., M. ASCE, S. Verhulst, M.S., P.E., M. ASCE and E. Criste, M.S., M. ASCE, Texas Section ASCE Spring Proceedings 2005.

"Case Studies of the Cause and Origin of Fungal Growth in Residential and Commercial Structures," ASCE 3rd Forensics Conference: Forensic Engineering/ Proceedings of the Third Congress, San Diego, California, October 19-21, 2003, with S. Verhulst, D. Ahuja and H. Poovey.

"Masonry Veneer Failure: A Case Study of Wall-Tie Corrosion," ASCE 3rd Forensics Conference: Forensic Engineering/ Proceedings of the Third Congress, San Diego, California, October 19-21, 2003, with D. Ahuja and P. Schonwetter.

PUBLICATIONS (cont.) "Behavior and Failure of High-Strength Concrete Subjected to Biaxial-Cyclic Compression Loading," ACI Materials Journal, American Concrete Institute, July-August 1988, with D. Fowler, and R. Carrasquillo.

"Fatigue of High-Strength Concrete Subjected to Biaxial-Cyclic Compression," Utilization of High-Strength Concrete, Symposium in Stavanger, Norway, June 1987, with D. Fowler, and R. Carrasquillo.

"Fatigue of High-Strength Concrete Subjected to Biaxial-Cyclic Compression," Doctoral Dissertation, The University of Texas at Austin, May 1986.

"Structural Behavior of Wood Shear Wall Assemblies," Journal of the Structural Division, American Society of Civil Engineers, March 1985, with D. Fowler.

"Structural Behavior of Wood Shear Wall Assemblies Used in Manufactured Housing," Master's Thesis, The University of Texas at Austin, May 1983.