

PROFESSIONAL ENGINEERING EXPERIENCE:

Mr. Baker is a Licensed Professional Engineer with more than 13 years of engineering experience including more than 9 years of experience in forensic engineering. Primary practice areas include evaluating residential, commercial, industrial, and institutional facilities to determine the causes and extent of damage to structural and architectural building components and systems. Additionally, Mr. Baker has performed code-compliance evaluations and slip-resistance testing of pedestrian walkways, analyzed and designed building structures, and designed industrial fall protection systems. Furthermore, Mr. Baker is involved in the evolution of the engineering profession through active participation in various professional organizations and committees.

PRACTICE AND EXPERIENCE: FORENSIC ENGINEERING:

- Forensic engineering evaluations of residential, commercial, industrial, and institutional facilities to determine the cause, extent, and/or reparability of damage to structural and architectural building components and systems.
- Slip-and-fall and trip-and-fall evaluations for commercial facilities.
- Roofing system evaluations including built-up roofing (e.g., modified-bitumen cap sheet, gravel ballasted, and non-ballasted systems), ceramic and concrete roofing tiles, asphalt-composition shingles of various types, metal roof panels of various types, various types of single-ply roof membranes (e.g., EPDM, PVC, TPO), wood shakes/shingles, spray polyurethane foam (SPF) roofing, and conventional and alternative installation slate roofing.
- Wall cladding evaluations including brick veneer, exterior insulation and finish systems (EIFS), stone veneer, lapped siding (e.g., vinyl, aluminum, fiber cement, hardboard, wood, board-and-batten), and stucco.
- Substructure evaluations including crawl spaces, basements, and concrete slabs-on-ground.
- Foundation system evaluations including both shallow foundations and deep foundations.
- Structural framing evaluations including concrete masonry, brick masonry, structural steel, light gauge steel, wood framing, heavy timber, reinforced concrete, pre-stressed concrete, conventional wood roof framing, and metal plate connected wood trusses.
- Pavement evaluations including asphalt and concrete parking lots, driveways, and sidewalks.
- Evaluation of accessory structures including floating boat docks and their respective roof structures.
- Deployment as a Structures Specialist first-responder with North Carolina Emergency Management (NCEM) to a variety of catastrophic incidents at buildings and other structures, including:
 - Darlington Ingredient Plant Explosion (June 2023)
 - Southpark Fire (May 2023)
 - Sparta Earthquake (August 2020)
 - Hurricane Florence (September 2018)

- Deployment as a forensic engineer to evaluate the extent of damage to residential, commercial, and industrial facilities as a result of natural disasters, including:
 - Nashville Tornado Outbreak (March 2020)
 - Hurricane Florence (September 2018)
 - Hurricane Helene (September 2024)
- Internal technical review of forensic engineering reports prepared by others.

PRACTICE AND EXPERIENCE: STRUCTURAL DESIGN ENGINEERING:

- Design of structural steel framing for industrial, commercial, and institutional buildings and building subsystems.
- Design of various structural steel connections, including simple shear connections (e.g., single-angle, double-angle, shear tab, and coped beams) as well as special/complex connections (e.g., axially loaded beam connections, moment connections, truss connections, and vertical bracing connections).
- Preparation of site-specific procedures for both the installation and deconstruction of structural steel framing and the design of temporary bracing/shoring for structural steel framing.
- Analysis of lift beams, derricks, hoists, and hydraulic gantries for critical lifts and the design of specialty rigging for critical lifts.
- Analysis and design of industrial fall protection systems including horizontal lifelines, vertical lifelines, personal fall arrest systems, guardrail systems, and travel restraint systems.

PROFESSIONAL ENGINEERING LICENSURE AND CERTIFICATIONS:

- Licensed Professional Engineer (P.E.) in Alabama, Arkansas, Colorado, Florida, Georgia, Louisiana, Michigan, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.
- Post-Disaster Building Safety Evaluator, Trainer, and Coordinator: California Office of Emergency Services (CalOES) Safety Assessment Program (SAP).
- Remote Pilot Certificate (Small Unmanned Aircraft Systems)
- English XL Tribometrist: Excel Tribometers, LLC.

PROFESSIONAL ENGINEERING EDUCATION:

- Bachelor of Science in Civil Engineering, May 2009, Purdue University. Primary area of study: Structural Engineering.
- Master of Science in Civil Engineering, December 2011, Purdue University. Primary area of study: Structural Engineering.
- Residential Roof Inspector, Haag Education, February 19-21, 2018.
- Commercial Roof Inspector, Haag Education, February 22-24, 2018.

ENGINEERING EMPLOYMENT HISTORY:

- Piedmont Forensics, PLLC, Managing Member and Principal Engineer: Forensics, July 2025 to Present.
- Valor Technical Consulting, LLC (and predecessor), Senior Engineer: Forensics, April 2024 to July 2025.
- U.S. Forensic, LLC, Senior Engineer: Forensics, August 2020 to March 2024.
- J.S. Held, LLC, Senior Engineer: Forensics, December 2018 to July 2020.
- SEA, Ltd., Civil/Structural Engineer: Forensics, July 2016 to December 2018.
- Farmington Hills Fire Department, On-Call Firefighter and Emergency Medical Technician – Basic, September 2013 to June 2016.
- Ruby+Associates, Inc., Staff/Project Engineer: Structural Design, May 2012 to May 2016.

PROFESSIONAL ENGINEERING/TECHNICAL AFFILIATIONS:

- North Carolina Task Force 3 (NC-TF3) and NCEM: Structures Specialist (2016 to Present).
- ASTM International: Committee F13 on Pedestrian/Walkway Safety and Footwear (2017 to Present).
- American Society of Civil Engineers (ASCE): Member (2012 to Present).
- National Council of Structural Engineers Associations (NCSEA): Structural Engineers Emergency Response (SEER) Committee: Member (2016 to 2017), Chair (2018 to 2024).
- Insurance Institute for Business & Home Safety (IBHS): FORTIFIED™ Evaluator (2022 to 2024).
- Structural Engineers Association of North Carolina: Member (2016 to 2024).
- American Society of Safety Professionals (ASSP): Member (2013 to 2024).
- National Society of Professional Engineers (NSPE): Member (2019 to 2023).
- Federal Emergency Management Agency (FEMA) National Integration Center: formal working group participant for the development of federal resource typing standards for post-disaster building safety evaluation (2018 to 2019).
- Michigan Task Force 1 (MI-TF1): Structures Specialist (2014 to 2016).
- American Institute of Steel Construction (AISC): Member (2012 to 2022).
- Structural Engineers Association of Michigan (SEAMi): Member (2012 to 2016).

PROFESSIONAL TECHNICAL PUBLICATIONS:

- 'Building Safety Assessments following the Sparta Earthquake'. *Structure Magazine*, Jan. 2022.

CONTINUING EDUCATION COURSES AND SEMINARS PREPARED AND PRESENTED:

- *Firefighter I and II: Building Construction for the Fire Service:* (Course: Farmington Hills Fire Academy, Multiple Dates).
- *CalOES Safety Assessment Program: Evaluator:* (Course: Multiple Dates and Locations).
- *The Application of Structural Engineering in Emergency Response:* (CE Seminar: Minnesota Structural Engineers Association, September 12, 2023).
- *Seven Myths of Slip-Resistance Testing:* (CE Seminar: Multiple Dates and Locations).
- *Post-Earthquake Building Evaluation Program:* (CE Seminar: North Carolina Emergency Managers Association Fall Conference, November 2, 2021).
- *Overview of the Disaster Response Alliance:* (CE Seminar: Multiple Dates and Locations).
- *Evaluating Walkway Slip-Resistance in Slip-and-Fall Injury Claims:* CE Seminar: (The Travelers Companies, Inc., 2018).
- *Applying the Scientific Method in the Investigation and Diagnosis of Moisture Problems:* (CE Seminar: Multiple Dates and Locations).
- *Forensic Engineering Technology and Innovation:* (CE Seminar: Turner Padgett, Charleston, SC, 2018).
- *3D Laser Scanning: The Future of Forensics:* (CE Seminar: Multiple Dates and Locations).

CONTINUING EDUCATION COURSES ATTENDED (2015 TO PRESENT):

- Florida Laws and Rules (2025), PDHLibrary.com, February 28, 2025.
- *Winter 2025 Meeting*, National Academy of Forensic Engineers (NAFE), Santa Fe, New Mexico, January 18-19, 2025.
- *Winter StS Training*, NCEM Rescue Engineers, February 24, 2024.
- *Engineering Ethics: The Tay Bridge Disaster*, NoonPi, January 10, 2024.
- *Observation Method for Scour: A New Tool for the Bridge Engineer*, ASCE, November 17, 2023.
- *Investigation of Winter Roof Failures: Lessoned Learned*, ASCE, November 16, 2023.
- *Introduction to 2015 International Existing Building Code*, ASCE, November 16, 2023.
- *Diagnosis, Repair, and Restoration of Building Facades*, ASCE, November 16, 2023.
- *Case Study: A Fresh Look at the Citicorp Engineering Ethics Dilemma*, ASCE, November 16, 2023.
- *Lessons from Failures of Building Envelope*, ASCE, June 22, 2022.
- *Learning from Failures of Wood-Framed Structures*, ASCE, June 22, 2022.
- *Engineering Investigations of Hurricane Damage: Wind Versus Water*, ASCE, June 22, 2022.

- *Avoiding Ethical Pitfalls in Failure Investigations*, ASCE, June 22, 2022.
- *Structural Building Condition Surveys: Looking for Trouble*, ASCE, June 22, 2022.
- *Champlain Tower Building Collapse 2021*, ASCE Arizona Section (Phoenix Branch), September 15, 2021.
- *Advanced Structures Specialist 27-Hour Online Training Course*, FEMA, and United States Army Corps of Engineers (USACE), May 21-23, 2021.
- *FEMA P-154: Rapid Visual Screening of Buildings for Potential Seismic Hazards (Third Edition)*, International Code Council (ICC), May 13, 2021.
- *Movement Joints in Brick Masonry*, RedVector, January 5, 2021.
- *Building Pathology: Roofs*, RedVector, January 4, 2021.
- *Building Pathology: Materials Pathology*, RedVector, December 31, 2020.
- *Building Pathology: An Introduction*, RedVector, December 31, 2020.
- *Soils and Foundations: The Low Down on Dirt*, RedVector, December 30, 2020.
- *Building Pathology: Site Drainage Problems*, RedVector, December 30, 2020.
- *Investigation of Failures*, RedVector, December 30, 2020.
- *Structures Specialist 7-Hour Regional Training 6.0 Virtual Session*, FEMA/USACE, November 15, 2020.
- *Introduction to Forensic Engineering*, National Academy of Forensic Engineers (NAFE), August 10, 2020.
- *Rainscreen Options & Solutions*, American Institute of Architects (AIA) and International Masonry Institute (IMI), June 23, 2020.
- *Ethics for Engineers: A Moral or Legal Responsibility?*, Vector Solutions, January 8, 2020.
- *On-Site Leader Training*, Missouri Structural Assessment and Visual Evaluation (SAVE) Coalition, March 15, 2019.
- *ATC-20: Post-Earthquake Safety Evaluation of Buildings*, Missouri SAVE Coalition, March 1, 2019.
- *Roofing Materials: Asphalt Shingles*, RedVector, April 21, 2017.
- *Hurricane Damage: Wind vs. Water Determination*, RedVector, April 21, 2017.
- *Structural Engineering for Walt Disney Theme Parks*, NCSEA Summit, September 15, 2016.
- *ASCE 7-16 Wind: How it Affects the Practicing Engineer*, NCSEA Summit, September 15, 2016.
- *Wind Loads on Non-Building Structures for the Practicing Engineer*, NCSEA Summit, September 15, 2016.
- *SEAOC Structural/Seismic Design Manual*, NCSEA Summit, September 15, 2016.

- *2015 IBC, ASCE 7-10, and SDPWS Seismic Provisions for Wood Construction*, NCSEA Summit, September 15, 2016.
- *ADA Guidelines 2010: General Site and Building Elements*, RedVector, August 22, 2016.
- *Emergency Support Function #9: Search and Rescue*, FEMA Emergency Management Institute, August 18, 2016.
- *Structural Collapse Technician Module 01C: Structural Engineering Systems*, FEMA/USACE, July 28, 2016.
- *Leak Detection for Roofs*, RedVector, July 12, 2016.
- *Connection Design for Hot-Dipped Galvanized Steel*, Ruby+Associates, May 19, 2016.
- *ASCE 7-10 Wind Load Provisions*, SEAMi Conference, April 28, 2016.
- *Harnessing the Power of the AISC Design Guides*, SEAMi Conference, April 28, 2016.
- *Ground Improvement Techniques*, SEAMi Conference, April 28, 2016.
- *Temporary Structures & Indiana State Fair Collapse*, SEAMi Conference, April 28, 2016.
- *Structural Collapse Awareness Training*, FEMA/USACE, February 23, 2016.
- *Confined Space Rescue Awareness*, MI-TF1, February 2016.
- *Designing for Hot-Dipped Galvanizing*, SEAMi, January 14, 2016.
- *Enhanced Operations in a Contaminated Environment*, Sterling Heights Fire, December 14, 2015.
- *Hazardous Materials Operations 8-Hour Refresher*, Sterling Heights Fire, December 13, 2015.
- *Respiratory Protection and PPE Training*, Sterling Heights Fire, December 13, 2015.
- *Bloodborne Pathogens*, Industrial Safety Consultants, Inc., December 8, 2015.
- *Wind Turbine Towers*, Ruby+Associates, December 8, 2015.
- *Water Rescue Awareness*, MI-TF1, December 2015.
- *Critical Incident Stress Awareness*, MI-TF1, December 2015.
- *Soft Rail Mounting*, Gantrax, November 30, 2015.
- *3D Laser Scanning*, Midwestern Consulting, November 12, 2015.
- *Lifting Solutions*, Enerpac Integrated Solutions, October 20, 2015.
- *Safety Assessment Program Recertification*, CalOES, September 23, 2015.
- *"When Disaster Strikes..." Institute*, ICC, September 11-12, 2015.
- *Telescopic Hydraulic Gantries*, Ruby+Associates, September 8, 2015.
- *Bluebeam*, Ruby+Associates, July 14, 2015.

- *IS-00800.b National Response Framework, An Introduction*, FEMA Emergency Management Institute, June 9, 2015.
- *Advanced Structures Specialist 44-Hour Training Course*, FEMA/USACE, May 16-21, 2015.
- *Rope Rescue Skills Set*, MI-TF1, February 28, 2015.

The list above represents the continuing education seminars and training events attended since January 1, 2015. This list is not exhaustive and does not include all routine rules, laws, or ethics training required to renew Professional Engineering licenses in various states. This list of representative continuing education also does not include individual personal research and study areas.

PROFESSIONAL HONORS:

- Young Engineer of the Year, SEAMi, April 2016.

PRIOR EXPERT WITNESS TESTIMONY:

Since January 1, 2019, testimony has occurred in the following matters:

- November 8, 2021: (Remote/Video Deposition): 15th Judicial District Court of Lafayette Parish, State of Louisiana: Melody Gibson v. Rouse's Enterprises, L.L.C.; C 20203312 K: Reported trip-and-fall in a commercial parking lot.
- December 18, 2024: (Remote/Video Deposition): United States District Court, Northern District of Texas, Amarillo Division: Taylor Harris and Keely Harris v. State Farm Lloyds; 2:24-cv-00096-Z: Reported hail damage to the stone-coated metal roof panels of a single-family dwelling.
- March 19, 2025: (Remote/Video Deposition): United States District Court, Northern District of Texas, Fort Worth Division: Community of Hope Methodist Church f/k/a Community of Hope United Methodist Church, Inc. v. Church Mutual Insurance Company; 4:24-CV-00656-O: Reported hail damage to the built-up (i.e., modified-bitumen cap sheet) roof assembly of a church building.
- May 23, 2025: (Remote/Video Deposition): District Court of 67th Judicial District, Tarrant County, Texas: Nicole Nixon and Michael Nixon v. State Farm Lloyds, Christopher Leak, Jessica Paul, and Taylor Asfar; Cause No.: 067-347670-23: Reported water intrusion at a single-family dwelling during a storm event.

This testimony list may not include matters for which a deposition or other testimony was suspended, continued, or in any other form remains pending. Testimony is added to this list upon the completion of the deposition or trial.