

**Michael F. Connor, P.E.** | AVP, Senior Principal Engineer, Civil and Structural Engineering,

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**Professional Summary:**

Mr. Connor has a diverse work experience across the areas of civil, environmental, facilities, geotechnical, and construction materials engineering where he has executed, managed, and provided technical leadership. He has conducted forensic investigations of historic structures, and investigated claims at residential, commercial, and industrial facilities and infrastructure, such as roads, bridges and utilities. He has investigated trip and fall accidents. Losses have ranged from a few thousand dollars to over \$150 million dollars. He has served as an expert witness. He has responded to natural disasters including floods, tornados, wildfires, earthquakes, and tornados. He has performed construction defect and builder's risk claim evaluations. His design experience includes subdivision planning and design, water and sewer extensions, erosion control plans, cleanup of environmental contamination, structural and roadway repairs. His project experiences include residential subdivisions, multi-family developments, and commercial and industrial site developments. He has overseen routine geotechnical investigations and construction testing activities. Areas of Expertise:

- Evaluation of historic structures
- Flood damage assessment
- Post fire structural assessment
- Tornado and hurricane damage assessment
- Evaluation of structural damage from vehicle impacts
- Earthquake damage assessment
- Geotechnical failure investigations
- Water damage assessments
- Roof assessments
- Trip and Fall
- Construction Defects and Builder's Risk evaluations

**Licenses and Certifications:**

Professional Engineer (Additional states available upon application):

Alabama 17153

Louisiana 40714

Arkansas 15222

Mississippi 20861

Florida 76546

North Carolina 26199

Georgia 37203

South Carolina 30953

Indiana 60890068

Tennessee 20032

Kentucky 28788

Texas 124032

NCEES Record Holder, 49659

OSHA 10 Hour Construction Site Safety

OSHA 40 hour- HAZWOPER

### Project Experience:

#### **Tornado, Fultondale, Alabama**

##### **Tornado damage evaluation**

Evaluated damage to a hotel. Assisted in evaluating repair versus replacement alternatives.

#### **Christmas Day Bombing, Nashville, Tennessee**

##### **Explosion damage evaluation**

Evaluated damage to a church, hotel, residential and office building structures impacted by an intentional explosion in the Second Avenue Historic District.

#### **Hurricane Sally, Alabama Gulf Coast**

##### **Hurricane damage evaluation**

Evaluated damage to single and multi-family residential structures. One multi-family complex consisted of four high-rise structures with façade damage, roof damage and damage to the fire suppression systems.

#### **Tornado, Jonesboro, Arkansas**

##### **Tornado damage evaluation**

Evaluated damage to a shopping mall. Assisted in evaluating repair versus replacement alternatives.

#### **Tornado, Nashville, Tennessee**

##### **Tornado damage evaluation**

Evaluated damage to numerous structures along this 72-mile tornado path. Buildings evaluated included single and multi-family residential, commercial and warehouse structures including seven warehouses in one industrial park. The damage in the industrial park ranged from only a 500,000-sf slab remaining to minor damage on a roof. One warehouse that was repairable was also damaged by fire during salvage operations and by 72 mph straight line winds during the reconstruction process. Assisted in evaluating repair versus replacement alternatives of a National Historic Register listed property.

#### **Mississippi Gulf Coast**

##### **Roof damage Evaluation**

Served as project manager for the evaluation of roof damage claim for over 300 single family homes and 40 quadplex buildings. The team consisted of 9 engineers and a UAV pilot who completed the field investigation in less than three weeks.

#### **Medical Center, South Carolina**

##### **Sinkhole collapse**

The insurance claim was for a sinkhole collapse that resulted in flooding of a roadway providing access to the hospital emergency room. Cause was determined to be the collapse of improperly constructed stormwater drainage system over 30 feet below the ground surface.

**Warehouse Union City, Tennessee**

**Roof damage evaluation**

Snow, ice and freezing rain damaged the roof of a 500,000 sf warehouse facility resulting in thousands of leaks and damage to inventory. Determined root cause of failure and assisted in the development of repair alternatives. Insurance claim was in excess of \$10 million.

**Ante Bellum Home, Gallatin, TN**

**Structural Collapse**

A portion of this 1850 home collapsed during the construction of an addition. Assignment consisted of the evaluation of historic and recent modifications to the structure and construction processes.

**Chicken Houses, Alabama**

**Tornado damage assessment**

Post tornado evaluation of chicken houses for extent of structural damage and development of repair or replacement alternatives.

**Hurricane Harvey, Houston, Texas**

**Flood damage assessment**

Evaluation of flood damaged residential structures.

**Trip and Fall, Crossville, Tennessee**

Evaluation of exterior stairs for code compliance after a trip and fall injury.

**Hurricane Irma, Florida Keys**

**Hurricane damage evaluation**

Evaluated damage to single and multi-family residential structures. One multi-family structure evaluation included review of previous repair history of the building and construction defects.

**Gatlinburg Wildfires, Tennessee**

**Post fire damage evaluation**

Evaluated extent of damage to structures and assisted in identification of repair or replacement scenarios and impact of code upgrades.

**Trip and Fall, Brentwood, Tennessee**

Evaluation of accessible route for code compliance after a trip and fall injury.

**Construction Defects, Tennessee, Kentucky and Mississippi**

Served as expert witness for defense of subcontractors in lawsuits with multi-million-dollar values.

**Builder's Risk Evaluations, Nashville, Tennessee**

Evaluation of slope, pavement and tie-back wall failures during construction projects. Evaluation of balcony railing and building envelope issues. Assisted with evaluation of cause and review of repair alternatives and costs.

### Court Qualifications/ Depositions:

Mr. Connor has extensive experience testifying as an expert witness in mediation, arbitration, depositions, and trials and has been accepted as an expert witness in numerous jurisdictions.

\*List of Expert Witness Testimony Experience is Available Upon Request

### Professional Experience:

EFI Global /Unified Investigations and Sciences, Inc., AVP, Senior Principal Forensic Civil / Structural Engineer (current title), 2012 - present  
Environmental Consulting Resources, Civil and Environmental Engineer, 2011  
PEER Consultants, Civil and Environmental Engineer, 2011  
Federal Emergency Management Agency, Hazard Mitigation Engineer, 2010  
MACTEC, Nashville, Tennessee, Senior Principal and Senior Project Manager 2008 to 2010  
Day Associates Engineering Services, Civil Engineer, 2004 to 2008  
Pesterfield Engineering, Project Engineer/Ground Penetrating Radar, 2004  
Froehling and Robertson, Branch Manager, 2000 to 2003  
Law Engineering and Environmental Services, Knoxville and Nashville, Tennessee, Project to Principal Engineer, 1983 to 2000

### Specialized Education:

EFI Global, Slip, Trip and Fall Training Program, 2024 which including sessions on human ambulation, potential hazards in the incident area, required code research including ADA, potential legal implications, and biomechanics  
A Fresh Look at the Citicorp Engineering Ethics Dilemma, ASCE 2023  
Engineering Practice for Wetting Induced Collapse of Soils, ASCE 2023  
Project Profitability- Six Signs of a Weak or Ineffective Project Management System, ASCE 2023  
Geophysical Imaging to support Geotechnical, Hydrologic and/or Environmental Projects, ASCE 2023  
Avoiding Problems in Specifying Metal Roofing, ASCE 2023  
Mentoring Guidance for Mentors, Proteges and Organizations, ASCE 2023  
Ethics in Sustainable Development, ASCE 2023  
MSE Wall Failures, ASCE 2023  
Bridge Demolition with Explosives, ASCE 2023  
Florida Rules and Laws 2023, Suncam, 2023  
Utilizing Drones to Improved Bridge Inspection Results, ASCE 2022  
Geosynthetics Used in Unpaved and Paved Roads, ASCE 2022  
Lessons Learned from the Design, Construction and Maintenance of Permeable Pavements for Stormwater Management, ASCE 2022  
Ethics 2020-2022, Indiana ACEC 2022  
Indiana Rules and Statutes 2020-2022, IN ACEC 2022  
Investigation of Winter Roof Failures-Lessons Learned, ASCE 2022  
Geo-Structural Investigation of Existing Structures, ASCE 2022  
Construction Vibrations, ASCE 2022  
Structural Building Condition Surveys: Looking for Trouble, ASCE 2022  
Innovative and Smart Construction: Use of infrared Thermal Profiling and GPR Pavement Density

Scanner, ASCE 2022  
Engineering Investigations of Hurricane Damage: Wind versus Water, ASCE 2021  
Calculation and Applying Design Wind Loads on Buildings Using the Envelope Procedure of ASCE 7-10, ASCE 2021  
Tornado Design Using ASCE 7-16 Commentary, ASCE 2021  
Lessons from Building Envelope Failures, ASCE 2021  
Learning from Failures of Wood-framed Structures, ASCE 2021  
Significant Changes to the Wind Load Provisions of ASCE 7-16, ASCE 2021  
A Rational Approach to Structural and Seismic Issues with Historic Buildings, ASCE 2021  
Avoiding Ethical Pitfalls in Failure Investigations, ASCE 2021  
US 2021 EFI Safety Awareness  
Practical Use of Drones for Diverse Infrastructure Projects, ASCE 2021  
Building Enclosure Commissioning, ASCE 2021  
Florida Rules Laws and Ethics, Red Vector 2021  
Curtain Wall Primer, ASCE 2021  
Respiratory Protection training EFI 2020  
Post Fire Safety, EFI 2020  
Diagnosis, Repair and Restoration of Building Facades, ASCE 2019  
Antiquated Structural Systems, ASCE 2019  
EVS/R Advance Roofing Certification, Vale Training, 2019  
Role of the Specialty Engineer in Wood Truss Industry, ASCE 2018  
Structural Testing of Curtain Wall Systems, ASCE 2018  
Effective Pavement Management, ASCE 2018  
Petrographic Examination of Hardened Concrete, ASCE 2018  
Flood Damage Evaluation, EFI 2018  
Radar Rainfall Estimation for Modeling and Design, ASCE 2018  
Indiana Engineers' Laws and Rules, SunCam 2018  
A Review of Site Features, Sun Cam, 2017  
Fundamentals of Site Grading Design, Sun Cam, 2017  
A Practical Introduction to Zoning and Entitlements, Sun Cam, 2017  
Florida Rules and Law and Ethics, 2017  
Understanding FEMA Flood Insurance Studies, PDHonline, 2016  
Concrete Repair- Selection of Materials, PDHonline, 2016  
Geotechnical and Geological Claims, PLRB, 2016  
Managing Multiple Projects, PDHonline, 2016  
Water Mitigation: Complex Restoration Projects, IICRC 500 and 520, PLRB, 2016  
Asbestos Awareness, Mississippi State University, 2016,  
Professional Liability, PDHonline, 2016  
Asbestos Awareness, Mississippi State University, 2016  
Florida Engineering Society, Newly Updated! Florida Laws & Rules PDHonline, 2015  
International Building Code & More: About the Codes, RedVector.com, 2015  
International Building Code & More: Code Officials and Code Processes, RedVector.com, 2015  
International Building Code & More: Family Residences, Existing Structures and Historic Buildings, RedVector.com, 2015  
8-hour HAZWOPER Refresher, RedVector.com, February 17, 2015  
OSHA 29 CFR 1910.1200-Globally Harmonized System of Classification and Labeling of Chemicals, Unified Investigations & Sciences, Inc., 2014,  
8 Hour HAZWOPER Refresher, 2013  
Introduction to Infrared Camera Operation, Infrared Training Center, 2013

FLIR I5 Basics, Infrared Training Center, 2013  
Introduction to FLIR Quick Report, v1.2, Infrared Training Center, 2013  
Arc Mapping Basics, CFITrainer.net, 2012  
Digital Photography, CFITrainer.net, 2012  
Residential Construction, CFITrainer.net, 2012  
Safety, CFITrainer.net, 2012  
Vacant Buildings, CFITrainer.net, 2012  
40 Hour HAZWOPER, Grant Training Solutions, 2011  
Fundamentals of Erosion Prevention and Sediment Control (TDEC Level I) refresher, 2011  
Managing Floodplain Development Through the NFIP, FEMA Emergency Management Institute, 2010  
Department of Homeland Security, No Fear Act training, FEMA Employee Knowledge Center, 2010  
Emergency and Disaster Preparedness, SkillSoft, 2010  
Introduction to the National Infrastructure Protection Plan (NIPP), IS-00860.a, FEMA Emergency Management Institute, 2010  
The Constitution Day Course, Department of Homeland Security 2010  
Records Management Training, FEMA, 2010  
406 Hazard Mitigation, FEMA Emergency Management Institute, 2010  
Introduction to the Incident Command System, ICS-100, FEMA Emergency Management Institute, 2010  
Deployment Basics Federal Disaster Workforce Readiness, FEMA Emergency Management Institute, 2010  
Module training of the Damage-Frequency Assessment, Flood, Hurricane Wind, and Tornado modules, FEMA Emergency Management Institute, 2010  
Introduction to the Public Assistance Process, IS-00630, FEMA Emergency Management Institute, 2010  
National Incident Management System (NIMS) An Introduction, IS-00700.a, FEMA Emergency Management Institute, 2010  
National Response Framework, An Introduction, IS-00800.b, FEMA Emergency Management Institute, 2010  
Continuity of operations (COOP) Awareness Course, IS-00546a, FEMA Emergency Management Institute, 2010  
OSHA 10 Hour Construction Safety, OSHA Pro's, 2010  
Coordinating Environmental and Historic Preservation Compliance, FEMA Emergency Management Institute, 2010  
Benefit-Cost Analysis Bridge Training Course, FEMA Emergency Management Institute, 2010  
Structurally Deficient and Functionally Obsolete Bridges, Ed Wasserman of TDOT hosted by ASCE Nashville Branch, 2008  
Segmental Retaining Wall Systems, Versa-Lok, 2008  
Design Principles for Erosion Prevention and Sediment Control (TDEC Level II), Water Resources Research Center University of Tennessee 2008  
Certified Professional in Erosion and Sediment Control, Exam Review Course, Jeffery Hoilman, International Erosion Control Association Southeast Chapter, 2008  
Fundamentals of Erosion Prevention and Sediment Control (TDEC Level I) initial course, Water Resources Research Center University of Tennessee, 2008  
Development, Planning and Designing for the Natural Resources, Session I The Neighborhood and Community Scale and Session II Light Imprint Strategies for Sustainable Infrastructure and Development, AIA Nashville, 2008

Green Building Stormwater Concepts,  
The WNC Green Building Council, 2008  
Green Building Seminar, Mega Green, 2008

#### Education:

Master of Science, Environmental Engineering, University of Tennessee, Knoxville, Tennessee  
2001  
Bachelor of Engineering, Civil Engineering, Vanderbilt University, Nashville, Tennessee 1983

#### Affiliations:

American Society of Civil Engineers, National, Tennessee Section and Nashville Branch, Secretary  
Treasurer Knoxville Branch 1998, Knoxville Branch President 1999, Tennessee Section Board  
Member 1999  
Engineers Without Borders

#### Courses Instructed/ Guest Lecturer:

Quality Management, Union University, Adjunct Instructor  
Environmental Management, Union University, Adjunct Instructor  
Engineering Economy, Union University, Adjunct Instructor  
Work Measurement and Design, Union University, Adjunct Instructor

#### Publications and Presentations:

Connor, Michael, Smith, Heath: Depositions Are You Ready, EFI Webinar May 8, 2024.

Connor, Michael: It Can't Fall Down, Evaluation and Monitoring of a 1960s Lift Slab Construction  
High Rise Building During Foundation Construction of an Immediately Adjoining Medical Facility,  
EFI Webinar March 29, 2024.

Connor, Michael: Defending the Earth from Space Aliens, A Review of the December 25, 2020  
Nashville Bombing, EFI Webinar November 8, 2023.

Connor, Michael: Learning from Mistakes, California Sewer and Stormwater Summit October  
2020

Booker, Richard; Schafani, David; Connor, Michael: "Large Commercial Roof Claims, Complex  
Issues, presentation at PLRB, April 2016 and March 2017.