

Mr. Doug Locker is a Senior Managing Consultant for ESI. He is a registered Professional Engineer (P.E.) in Georgia, Tennessee, Florida, North Carolina, Alabama, and South Carolina and obtained his first license in Georgia in 1986. Mr. Locker's expertise includes both mechanical and civil engineering disciplines. His mechanical expertise includes product, system, and component analysis due to malfunctions caused by mechanical failure and/or improper design, manufacturing, construction, or maintenance. He has expertise in fire causation due to mechanical failure in structures and vehicles. Mr. Locker's civil experience includes residential/light commercial construction, structural design and analysis with comprehensive expertise in construction defects, failure analysis, code compliance, and reparability assessments. He has conducted over 1,000 failure investigations and has testified by deposition and at trial in state and federal court.

Prior to entering the forensic consulting field, Mr. Locker spent 13 years as founder and president of a construction firm with an emphasis on design, renovation, and restoration of residential and light commercial structures. Mr. Locker began his professional career as an engineer with the IBM Corporation.

## Licenses & Certifications

- State of Alabama PE License No. 33388
- State of Florida PE License No. 75112
- State of Georgia PE License No. 15940
- State of North Carolina PE License No. 037134
- State of South Carolina PE License No. 29353
- State of Tennessee PE License No. 111718
- National Council of Examiners for Engineering and Surveying (NCEES) Record No. 38914
- National Association of Fire Investigators (NAFI) Certified Fire and Explosion Investigator (CFEI)
- National Association of Fire Investigators (NAFI) Certified Vehicle Fire Investigator (CVFI)
- Georgia – Licensed Residential and Light Commercial Contractor, License No. RLQA001807

## Positions Held

### Engineering Systems Inc., Peachtree Corners, GA

- Senior Managing Consultant, 2017 – Present
- Senior Consultant, 2010 – 2016

### Douglas M. Locker

Senior Managing Consultant

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**Phone:** 470-719-1238

### ESI GA - Atlanta

430 Technology Parkway NW  
Peachtree Corners, GA 30092

### Education

BS, Mechanical Engineering.  
Georgia Institute of Technology.  
1981

### Areas of Specialization

Building Construction Defect  
Analysis

Building Envelope Analysis

Codes and Standards Compliance  
Analysis

Fire and Explosion Investigations  
Due to Mechanical Failure

Fire Damage Structural Assessment

Fireplace Systems

Fuel Gas Systems and Appliances

HVAC Systems and Controls

Plumbing Systems

Storm Damage Assessments

Structural Analysis

Vehicle System Analysis

Water Loss Causation Evaluation



### **Unified Investigations and Sciences, Inc., Atlanta, Georgia**

- Forensic Engineering Consultant, 2007 – 2010

### **Artisans of Atlanta, Inc., Atlanta, Georgia**

- Shareholder, 2007 – 2024

### **President, 1993 – 2006 International Business Machines, Inc., Atlanta, Georgia**

- Chief Information Officer, 1991 – 1993
- Systems Engineering Manager, 1987 – 1991
- Large Systems Software Specialist, 1985 – 1986
- Systems Engineer, 1981 – 1985

### **Scientific Atlanta, Atlanta, Georgia**

- Mechanical Engineer, 1979 – 1981

### **Hartramp/Powell Consulting Engineers, Atlanta, Georgia**

- HVAC Designer/Draftsman, 1978 – 1979

### **US Army Corp of Engineers, Annapolis, Maryland**

- Test Engineer, 1977 – 1978

## **Presentations**

### **Lightning Strikes; Meteorology, Science, Investigation and Damaging Effects**

Presentation Author, GFIA Spring Conference, March 16, 2022, 3 hours

### **Fire Investigator Advanced Training**

Presentation Author, Liberty Mutual, May 2017, 4 hours

### **20 lb. Propane Cylinder Connections**

Demonstration Author, GFIA, March 2014, 1.5 hours

### **Gas Concentration Modeling Using Fire Dynamic Simulator (FDS)**

Demonstration Author, GFIA, March 2014, 1.5 hours

### **Mechanical and Practical Aspects of Fireplace and Chimney Fires**

Presentation Author, GFIA, August 2011, 1 hour

### **An Expert's Role in Product Liability Cases**

Presentation Author, NASP, November 2013, 1 hour

## Continuing Education

- **Florida Building Code 8<sup>th</sup> Edition: Advanced Course** - PDH Academy, December 24, 2024, 2 Hours, Tested
- **Strength Design for Reinforced Concrete Hydraulic Structures (S03-022)** - CED Engineering, December 16, 2024, 3 Hours, Tested
- **Coastal Construction – Designing the Building Envelope (S04-018)** - CED Engineering, December 16, 2024, 4 Hours, Tested
- **Wood as an Engineering Material: Moisture Relations and Physical Properties (S02-022)** - CED Engineering, December 2, 2024, 2 Hours, Tested
- **Engineering Laws, Rules and Ethics for Florida Professional Engineers (FL2-006)** - CED Engineering, December 2, 2024, 2 Hours, Tested
- **Job Hazard Analysis (JHA)** – KPA, October 20, 2024, 1 hour, Tested
- **Portable Ladder Safety** – KPA, October 20, 2024, 1 hour, Tested
- **Respiratory Protection** – KPA, October 20, 2024, 1 hour, Tested
- **Roadside Safety Training** – KPA, October 20, 2024, 1 hour, Tested
- **Fall Protection Awareness** – KPA, August 22, 2024, 1 hour, Tested
- **Aerial Lift Operations Awareness** – KPA, August 14, 2024, 1 hour, Tested
- **Asbestos Hazard Awareness** – KPA, August 14, 2024, 1 hour, Tested
- **Chemical Safety Awareness** – KPA, August 14, 2024, 1 hour, Tested
- **Confined Space – Permit Required** – KPA, August 14, 2024, 1 hour, Tested
- **Excavation & Trenching** – KPA, August 14, 2024, 1 hour, Tested
- **Engineering Ethics for North Carolina Professional Engineers (NC1-001)** - CED Engineering, December 2023, 1 Hour, Tested
- **Ethical Professional Obligations for Florida PEs** - PDH Academy, February 2023, 1 hour, Tested
- **Laws and Rules Update for Florida PEs** - PDH Academy, February 2023, 1 hour, Tested
- **Mycometer Surface Fungi Sampling & Analysis Proficiency: Certification # MSF-2577-US** – Mycometer, October 26, 2022, 4 hours CEU, Tested
- **Professional Standard of Care: Discussion of Common Law Definition of Engineering S of C** – ESI, August 15, 2022, 1 hour CEU
- **International Existing Building Code: Overview and Application to CSE Discipline** - January 12, 2022, 1 hour, not tested
- **Floor Level Surveys** – ESI, January 12, 2022, 1 hour, not tested
- **Residential Electrical Systems** - International Association of Arson Investigators, Inc. September 20, 2021, 4 hours, Tested
- **Investigating Natural Gas Systems** - International Association of Arson Investigators, Inc., September 20, 2021, 3 hours, Tested
- **Electric and Hybrid Vehicle Fires** - International Association of Arson Investigators, Inc., September 20, 2021, 3 hours, Tested
- **Georgia POST NBA04G & Georgia FFSTC 1996-2102-01** - GFIA, September 6, 2021, 28 hours, Tested
- **2010 ADA Standards for Accessible Design Part 1 & Part 2** - PDH Academy, December 31, 2020, 14 hours, Tested

- **Florida Building Code 7<sup>th</sup> Edition: Advanced Course** - PDH Academy, December 31, 2020, 2 hours, Tested
- **Laws and Rules for Florida PEs** - PDH Academy, December 31, 2020, 1 hour, Tested
- **Ethics for Florida PEs** - PDH Academy, December 31, 2020, 1 hour, Tested
- **Strengthening Techniques – FRP Part I, Strengthening Techniques – FRP Part II, and Repurposing Existing Buildings** - Structural Technologies, April 2020, 4.5 hours
- **Engineering Investigations of Hurricane Damage: Wind versus Water** - ASCE, July 11, 2019, 1.5 hours
- **Avoiding Failures of Retaining Walls** - ASCE, June 3, 2019, 1.5 hours, Tested
- **Introduction to Composite Strengthening Systems** - Simpson Strong-Tie, March 13, 2019, 1 hour
- **Simpson Strong-Tie Anchor Systems Overview** - Simpson Strong-Tie, March 13, 2019, 1 hour
- **Laws and Rules for Florida PEs** - PDH Academy, January 20, 2019, 1 hour, Tested
- **Florida Building Code 6<sup>th</sup> Edition: Advanced Course** – PDH Academy, January 20, 2019, 2 hours, Tested
- **Ethics for Florida PEs** - PDH Academy, January 20, 2019, 1 hour, Tested
- **Forensic Engineering 8th Congress** - ASCE, November 2018, 20.5 hours
- **Designing for Flood Loads Using ASCE 7 and ASCE 24** - ASCE, August 2018, 2 hours, Tested
- **NFPA 921 & NFPA 1033: Putting it Together** - NAFI, July 2016, 32 hours
- **Florida Building Code, 5<sup>th</sup> Edition 2014: Highlights and Changes Advanced Course** - PDH Academy, June 2016, 2 hours, Tested
- **Florida Laws & Rules** - PDH Academy, June 2016, 1 hour, Tested
- **Florida Ethics** - PDH Academy, June 2016, 1 hour, Tested
- **Florida Laws and Rules** - Biennium Cycle 2013-2015, February 2015, 4 hours, Tested
- **Classical Methods of Structural Analysis** – AISC, June-August 2014, 12 hours
- **Significant Changes to the Wind Load Provisions of ASCE 7-10 and Coordination with the 2012 IBC and 2012 IRC** - ASCE, May 2014, 1 hour
- **Separating Wind and Water Damage, Emerging Trends in Building Products, What is Damage?** - 2014 Windstorm Conference, January 2014, 6 hours
- **Structural Renovation of Buildings – Updated for 2012 IBC and IEBC** – ASCE, November 2013, 14 hours, Tested
- **Life Safety Code Changes** – NFPA, October 2013, 2 hours
- **Current Code Requirements for Interior Wall and Ceiling Finishes** - NFPA, September 2013, 2 hours
- **Occupational Safety and Health Standards for Construction Industry** - GTRI, October 2012, 26 hours, Tested
- **2011 Advanced National Fire, Arson & Explosion Investigation Training Program** - NAFI, August 2011, 24 hours, Tested
- **Investigation and Repair of Fire-Damaged Framing** - ASCE, February 2011, 1.5 hours
- **Effective Investigation and Testimony** - CFI Trainer, April 2010, 3 hours, Tested
- **Arc Mapping Basics** - CFI Trainer, April 2010, 4 hours, Tested
- **5<sup>th</sup> Congress on Forensic Engineering** - ASCE, November 2009, 16.5 hours

## **Continuing Education (continued)**

- **Commercial Roofs Damage Assessment** - Haag Engineering, September 2009, 8 hours
- **Composition Wood and Metal Roof Damage Assessment** - Haag Engineering, September 2009, 8 hours
- **Vehicle Fire, Arson & Explosion Investigation Science and Technology Seminar** - NAFI, September 2009, 32 hours
- **Investigation of Appliance Fires** - Fire Findings, November 2008, 30 hours, Tested
- **Structural Condition Assessment of Existing Structures** - ASCE, October 2008, 16 hours
- **The Scientific Method for Fire and Explosion Investigation** - CFI Trainer, June 2008, 4 hours, Tested
- **Investigating Motor Vehicle Fires** - CFI Trainer, January 2008, 8 hours, Tested
- **Investigative Procedures** - Unified Investigations & Sciences, October 2007, Dallas, TX, 40 hours NAHB,
- **2006 International Residential Code Update** - August 2007, Atlanta, GA, 16 hours
- **Slab on Grade Concrete Construction** - Auburn Engineering Extension, June 2007, 8 hours Auburn
- **Designing with Wood** - Engineering Extension, July 2006, 8 hours
- **Allowable Stress Design for Wood Construction** - Auburn Engineering Extension, July 2006, 8 hours Auburn
- **Construction Surveying** - Engineering Extension, June 2005, 8 hours
- **Establishing Your Engineering Practice** - Auburn Engineering Extension, May 2004, 8 hours
- **Warranty Workshop** - NAHB, Atlanta, GA, May 2002, 8 hours

## **Professional Affiliations/Honors**

### **American Society of Mechanical Engineers (ASME)**

- Member, 1981 to Present

### **American Society of Civil Engineers (ASCE)**

- Member, 2007 to Present

### **American Society of Plumbing Engineers (ASPE)**

- Member, 2015 to Present

### **Greater Atlanta Home Builders Association (HBA)**

- Past Member, 1995 to 2007

### **International Code Council (ICC)**

- Member, 2010 to Present

### **National Association of Fire Investigators (NAFI)**

- Member, 2008 to Present

### **National Association of the Remodeling Industry (NARI)**

- Past Member 1995 to 2007