

Melanie S. Smith | Forensic Engineer, P.E.

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Professional Summary:

Melanie S. Smith, P.E., is a forensic engineer specializing in structural analysis, design, and forensic investigations of commercial, residential, institutional and industrial structures. She has over 35 years of experience in structural engineering and design of buildings and structures, including office buildings, museums, schools, correctional facilities, libraries, auditoriums, sport complexes, parking garages, airplane hangars, cranes and equipment supports, and other structures, in the southeastern United States and Puerto Rico. She has over 2 years specializing in forensic structural engineering. Her projects in forensic engineering include commercial, institutional and residential buildings and aquatic structures which have experienced damage from weather, age and geotechnical causes. She is knowledgeable the International Building Code and the Florida Building Code and familiar with local jurisdictional codes in the Georgia and Florida region.

- Structural Engineering Design and Analysis
- Forensic Structural Engineering Analysis and Structural Inspection
- Roofing Inspection of all Types of Residential and Commercial Roofing
- Geotechnical Assessment of Structural Foundation Failures

Licenses and Certifications:

Professional Engineer, State of Georgia, License # PE011750

Professional Engineer, State of Florida, License # 34106

Professional Engineer, State of South Carolina, License #34306

Professional Engineer, State of Alabama, License #36574

Professional Engineer, State of Tennessee, License # 120052

Professional Engineer, State of Louisiana, License # PE011750

Professional Engineer, State of West Virginia, License # 020092

Project Experience:

Unnamed Insurance Company, St. Marys, Georgia

Commercial Roof Failure Analysis, 2018

Assessment of failure modes of a detached EPDM (membrane material) roofing on a large commercial roof. Detachment was due to the aging adhesive and deterioration of the polystyrene plates of the partially adhered roof system utilizing the plate bonding method.

Unnamed Insurance Company, Jacksonville, Florida
Large Church Post Hurricane Damage Assessment of Facade, 2017
This large church auditorium was assessed for a damaged EIFS (exterior insulation and finish system) façade following high winds occurring in Jacksonville during Hurricane Irma. The large storefront glazing system was also assessed for damage to the seals and muntins of the glazing system.

Unnamed Insurance Company, Valdosta, Georgia
Commercial Asphalt Shingle Roof Condition Assessment, 2017
This motel was comprised of four buildings of a hipped gable asphalt shingle roof that had undergone wind damage and aging over the years. The assignment was to assess the damage and determine dates for the occurrence.

Unnamed Insurance Company, Florida and Georgia Areas
Residential Roof Failure Analysis, 2018
Typical residential roof investigations involve both asphalt shingles and cement tile roofs which have undergone wind, hail and age related damage. The assignments involve determining cause, extent and age of the observed damage.

Professional Experience:

EFI Global, Inc /Unified Investigations and Sciences, Inc., Forensic Structural Engineer, Atlanta, Georgia, May 2016 to present
C2O' - The Engineers, Inc., Marietta, Georgia, President, February 2008 to June 2016
Innovative Engineering, Inc., Woodstock, Georgia, Project Engineer, 2004 to 2008
Rosser International, Atlanta, Georgia, Project Engineer, 2003 to 2009
Willett Engineering, Inc., Tucker, Georgia, Project Engineer, 1999 to 2003
Leo A Daly, Atlanta, Georgia, Project Engineer, 1991 to 1995
Continental Concrete Structures, Alpharetta, Georgia, Project Engineer, 1994 - 1996
Jack Lynch & Assoc., Atlanta, Georgia, Project Engineer, 1989 - 1993
John Portman and Associates, Atlanta, Georgia, Junior Design Engineer, 1985 - 1989
Bennett & Pless, Atlanta, Georgia, Junior Design Engineer, 1983 - 1985
G. Ben Turnipseed Engineers, Atlanta, Georgia, Co-op Student worker, 1980 - 1982
Woodward Clyde Consultants, Rockville, Maryland, Co-op Student worker, 1979 - 1980

Specialized Education:

Coastal Building Construction Requirements, December 30, 2017, 4 hours (Tested)
Ethical Issues in Forensic Engineering, December 31, 2017, 2 hours (Tested)
Florida Engineers; Professional Ethics, December 30, 2017, 1 hour (Tested) Indoor
Mold and Moisture Basics, December 31, 2017, 2 hours (Tested)
OSHA/EPA Compliant P\Operations & Maintenance Class III Initial, Asbestos, March 13-14, 2017.
8 hours (Tested)
Georgia Board's Rules for Practicing Engineering, December 30, 2017, 2 hours (Tested)
HAAG Residential Roof Inspector Certification, September 12-14, 2016, 20 hours (Tested)
HAAG Commercial Roof Inspector Certification, September 15-17, 2016, 20 hours (Tested)
International Association of Arson Investigators (IAAI) - CFITrainer.net

Fire Investigator Scene Safety, July 20, 2016, 3 hours (Tested)
The Fundamentals of Residential Building Construction, July 25, 2016, 3 hours (Tested)
Deposition: Part 1, July 21, 2016, 3 hours (Tested)
Deposition: Part 2, July 21, 2016, 3 hours (Tested)
Built-Up Roof Damage Assessment, Haag, July 21, 2016, 2 hours (Tested)
Single-Ply Roofs Damage Assessment, Haag, August 14, 2016, 2 hours (Tested)
Composition Roofs Damage Assessment, Haag, August 14, 2016, 2 hours (Tested)
National Society of Professional Engineers (NSPE)- A Conversation About Engineering Expert Witnesses and Litigation, 2016, August 15, 1 hour (Tested)
National Society of Professional Engineers (NSPE)- Engineering Ethics: Maintaining Objectivity/Truthfulness and Addressing Conflict of Interest, July 26, 2016, 1 hour (Tested)
National Society of Professional Engineers (NSPE)-Why some buildings are at Increased Risk of Failure from Moisture Problems, July 27, 2016 1 hour (Tested)

Education:

Bachelor of Science, Civil Engineering, Georgia Institute of Technology, Atlanta, GA, 1983, with High Honor
Master of Science, Civil Engineering, Georgia Institute of Technology, Atlanta, GA, 1994, specializing in Structural Engineering.

Affiliations:

Member of American Society of Civil Engineers
National Council of Examiners for Engineering and Surveying (NCEES)-
NCEES Record No. 51829
Member of Structural Engineers Association of Georgia

Honors and Awards:

1st Quarter, Values in Action Honoree, Sedgwick, April 26, 2018