

## Robert H. Midkiff, Jr., P.E. | Principal Civil/Structural Engineer

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### Professional Summary:

Mr. Midkiff has forty-two years of experience in structural and civil design, construction, project management, and evaluation of commercial, industrial and residential buildings for attorneys, insurance companies, and property owners. Mr. Midkiff's expertise includes origin and cause (O & C) investigations related to structural failures and damages, catastrophe response, hail and wind damage, foundation settlement, and structural repair design. Mr. Midkiff has also performed structural design for large commercial and industrial buildings.

Mr. Midkiff has extensive experience on the evaluation of damaged and failed structures, building code violations, construction defects, building foundation damage, retaining wall failure, and OSHA structural load ratings.

- Structural Failures of Building Components and Systems
- Structural Foundation Failures
- Hail / Wind Damage to Commercial Roofing Systems
- Construction Defect Evaluation
- Building Code Compliance Evaluation
- Welding Evaluation
- Vibration and Fatigue Analysis
- Wind Load Analysis and Wind Tunnel Testing
- Design and Analysis of Cold-Formed Steel Structures
- Design and Analysis of Aluminum Structures, Including Street Lighting Poles
- Design and Analysis of Flat Bottom Tanks Per API-650

### Licenses and Certifications:

Professional Engineer, AL, #22382

Professional Engineer, FL, #53022

Professional Engineer, GA, #24420

Professional Engineer, KY, #20503

Professional Engineer, MD, #23240

Professional Engineer, NC, #15197

Professional Engineer, SC, #18827

Professional Engineer, TN, #104717

Professional Engineer, VA, #0402-010388

Professional Engineer, WV, #13793

### Project Experience:

Coltex Incorporated, Clover, SC  
Wind Damage Investigation -  
Investigated wind damage to roof of 89,000 sq. ft. commercial building. Determined cause and origin and evaluated the damages, including failure of heavy timber roof framing.

Lowe's of Murray, KY  
Structural design -  
Structural design and specifications for the construction of a 130,000 square foot retail facility. Construction was masonry walls with conventional steel joists and decking with a single-ply roofing system.

Altria Inc., Richmond, VA  
Structural Evaluation -  
Evaluated the structural adequacy of 150' high logo sign for the addition of service scaffolding; including review of applicable OSHA requirements.

Lowe's of White Marsh (Baltimore), MD  
Structural Failure –  
Evaluated failure of steel roof joists due to snow loading. This included a site inspection and review of construction documents; and interviews with the structural engineer of record, the steel fabricator and steel erector. Determined cause and origin.

Ashland Chemical, Hopewell, VA  
Feasibility Study –  
Performed feasibility study for retrofit of 30,000 sq. ft. warehouse building for re-use as an onsite contractor fabrication building. The study included cost estimates, and structural design.

### Professional Experience:

EFI Global, Charlotte, NC, Structural Engineer, 2011 - Present  
Progressive Design, Inc., Richmond, VA, Manager of Civil/Structural Engineering, 2011  
Lowe's Companies, Inc., Director of Engineering & Construction, 1998 - 2011  
BETCO, Inc., Chief Engineer, 1996 – 1998  
CMI, Inc., Project Engineer, 1992 – 1996  
BNE, Rocky Mount, NC, Director of Site Development, 1986 – 1992  
Hapco Division, DKM Inc., Abingdon, VA, Manager of Engineering, 1977 – 1983  
Chicago Bridge & Iron Co., Oak Brook, IL, Field Engineer / Design Engineer, 1973 – 1977



### Specialized Education:

Anchorage to Concrete, ACI, Richmond, VA, 2010  
Construction Materials Testing, Forensic Evaluation, Environmental Testing, EAS/Carolinas, Wilkesboro, NC, 2010  
HSS Connection Design, AISC, Jacksonville, FL, 2010  
ACI-318-08, The Structural Concrete Standard, ACI, Charlotte, NC, 2008  
Troubleshooting Concrete Forming & Shoring, ACI, Williamsburg, VA, 2009

### Education:

Bachelors of Science, Civil Engineering, Virginia Tech, Blacksburg, VA, 1973

Master of Business Administration, Marketing & Finance, Virginia Tech, Blacksburg, VA, 1986

### Courses Instructed/ Guest Lecturer:

Structural Design Issues for West Region Lowe's, 2001  
Successful Contract Administration for Lowe's General Contractors, 2005  
Insurance Based Civil/Structural Site Investigations, 2016

\*\*Litigation CV available upon request.

