



DAVID M. ROADY, PE, CCCA

Architectural-Structural Engineer and Contract Administrator

PROFESSIONAL CREDENTIALS

Licensed Professional Engineer in South Carolina, No. 24752
Licensed Professional Engineer in North Carolina, No. 035824
Registered Professional Engineer in Georgia, No. PE034268
Licensed Professional Engineer in Texas, No. 104408
Certified Construction Contract Administrator (CCCA), 1996 to present

EDUCATION

Colorado State University, Fort Collins, Colorado
Graduated in 1983, Bachelor of Science in Civil Engineering, Major: Structural Design.

Mesa State College, Grand Junction, Colorado
Graduated in 1981, Associate of Science in Engineering

PROFESSIONAL AFFILIATIONS

Member, Professional, Construction Specifications Institute (CSI)
Member, American Society of Civil Engineers (ASCE)
Member, The Structural Engineers Association of South Carolina (SEA)
Member, Cold-Formed Steel Engineers Institute (CFSEI)
Member, RCI, Incorporated

PROFESSIONAL EXPERIENCE

ENGINEERING:

- Performed forensic field investigation, engineering analysis, and reporting of building conditions involving weather envelope, wood structural framing, secondary cold-formed metal framing systems, life safety and means of egress, accessibility, and habitability issues.
- Analyzed field inspection data and researched defects for conformance to past and current building codes and standards.
- Drafted numerous schematic repair reports addressing a wide range of forensic issues. Assisted in developing company standards for schematic repairs to distressed buildings.
- Designed, built, and calibrated window and door testing equipment. Conducted and reported tests on water intrusion and air infiltration of windows and sliding glass doors, tests for static coefficient of friction and slip resistance indexes, and tests for air leakage and moisture migration. Designed and conducted tests of bending capacity of sheathed metal studs and shear capacity of partially driven PDF and adhesive connections.

COST ESTIMATING AND COST ANALYSIS:

Forensic Cost Consulting Work:

- Provided expert witness testimony on the costs and methods of repairs to numerous distressed or non-compliant buildings.

1890 Milford Street – Charleston, South Carolina 29405 – Tel 843.724.1456 – Fax 843.724.1458
1416 Chapin Road – Chapin, South Carolina 29036 – Tel 803.345.3833 – Fax 803.345.2823
398 College Avenue – Clemson, South Carolina 29631 – Tel 864.680.6582
120 Greewich Road, Charlotte, North Carolina 28211 – Tel 704.749.3545 – Fax 704.362.3101

- Performed detailed cost estimating of schematic repairs. Performed analysis of opposing expert's estimates and repair methods. Coordinated the firm's repair programs with those of outside consulting firms.
- Provided litigation support and assisted in mediation and settlement negotiations.
- Analyzed traditional construction claims involving contract disputes, cost/schedule overruns, and changes.
- Developed estimating databases, unit prices, work package assemblies, and regional labor pricing.

Contractor Cost Estimating Work:

- Performed cost estimating of new construction and renovation projects. Estimated in both competitive bid and negotiated price environments.
- Involved in the estimating of over 100 projects of all types, ranging from \$1 million to \$32 million. Performed as lead estimator on over sixty projects.
- Provided estimating during project development; assisted in performing value engineering studies.

PROJECT MANAGEMENT AND PROJECT ENGINEERING:

- **Project Manager:** Self Memorial Hospital, Greenwood, SC. A \$12 million contract for additions and extensive interior renovations.
 - Performed all aspects of project management and project engineering for the prime general contract.
 - New and renovated hospital departments included Outpatient Services and Surgery, Intensive Care, Cardiac Care, Neonatal Intensive Care, Labor/Delivery/Recovery, Administrative, and Clean Storage.
- **Project Engineer:** Charleston County Waste Incinerator, N. Charleston, SC. An \$8 million structural and site work subcontract.
 - Construction included site clearing and preparation, site dewatering, concrete foundations and superstructure, fast-track construction.
 - Responsible for project scheduling, change order pricing and negotiation, material purchasing, field inspection, applications for payment, and supervision of field engineering staff.
- **Project Engineer:** Organon Teknika Corp., Durham, NC. A \$20 million general contract to build a multi-building pharmaceutical manufacturing plant, corporate headquarters, and R&D facility.
 - Construction included numerous types of special construction; special mechanical and electrical systems; fast-track construction.
 - Responsible for change order pricing, coordination of subcontractor's work, submittals, and field inspection.

QUALITY ASSURANCE AND QUALITY CONTROL:

- **Contractor Quality Control Representative:** Nuclear Propulsion Training Facility and Submarine Pier, US Navy, Naval Weapons Station, Charleston, SC. A \$17 million contract to build a submarine training facility.
 - Responsible for the quality control of this multi-phase project involving blast-proof construction, radiation controlled facilities, submarine and tender vessel pier, and extensive site work.
 - Developed and implemented the on-site QA/QC program to monitor the construction and contractor performance.
 - Performed construction inspection, testing, and project engineering duties. Supervised a staff of QC inspectors and support personnel.
 - Served as the contractor's liaison with the Navy's Resident Officer in Charge of Construction.
- **Mechanical Quality Control Inspector and Mechanical Quality Assurance Engineer:** Shearon Harris Nuclear Power Plant, New Hill, NC. A new \$4.5 billion single 900 MWatt nuclear power plant.
 - Performed QA verification and sign-off at final completion of several critical plant safety-related mechanical systems. Certified the systems as to final completion.
 - Performed QA verification of documented inspections on repairs to the concrete structure.
 - Performed QC inspections of seismic restraints and large equipment frames for the numerous process piping and safety-related reactor systems.

- **Civil Quality Control Inspector:** Turkey Point Nuclear Power Plant: Florida City, FL. A \$200 million contract for the seismic upgrade of twin 750 MWatt nuclear reactors.
 - Performed QC inspections of concrete, grout, structural steel, and soils.
 - Performed laboratory testing of concrete, grout, and soils.

EMPLOYMENT HISTORY

- Since 2004** Applied Building Sciences, Inc.
Architectural-Structural Engineer
- 2002–2004** Campbell, Schneider & Associates, LLC
Associate Engineer
- 1995–2002** Riesberg Architects, LLC, Charleston, SC
Forensic Investigator, Cost Estimator, Contract Administrator
- 1987–1995** Ruscon Construction Co., Inc., Charleston, SC
Project Manager, Estimator, Project Engineer
- 1983–1986** Fluor Daniel Corp., Technical Services Division, Greenville, SC.
Quality Assurance Engineer, Quality Control Inspector

Other positions:

- 1980-1983** Construction laborer, surveying crewman, residential framing carpenter, and underground miner.

RECENT PROFESSIONAL DEVELOPMENT

2010

- ASCE Seminar: Design of Building Foundations
- SEA of SC Seminar: Using Wall Sheathing to Resist Shear and Uplift
- ASCE Seminar: Building Code Provisions for Structural Renovation
- 2010 SC Engineering Conference: Technical Sessions
- SEA of SC 5th Annual Conference: Technical Sessions
- ASCE Seminar: Structural Condition Assessment

2009

- BEC, Charleston Seminar: Windows 101 Revisited
- ASCE Seminar: Investigation and Repair of Fire-Damaged Framing
- ASCE TCFE Workshop: Façade Forensics
- ASCE TCFE 5th Forensic Engineering Congress: Technical Sessions

2008

- ASCE Seminar: Renovation of Wood Trusses
- SEA of SC: Simpson Strong-Tie Solutions for Coastal Regions

2007

- IGMA Seminar: Preventing Insulating Glass Failures
- SEA of SC Seminars: 2005 AISC Seismic Provisions and Concrete Mix Design
- ASCE Seminar: Renovation of Masonry Façade
- AAMA Tech. Session: Specifying Windows Using Performance Standards
- CCMA Seminar: Structural Masonry Design Systems, Version 4
- CSI Seminar: Positive and Negative Waterproofing

HONORS and AWARDS

- 2002 Certificate of Merit and Appreciation, Charleston Chapter, CSI.
- 2001 President's Award, Charleston Chapter, CSI.
- 2000 Certificate of Merit and Appreciation, Charleston Chapter, CSI.