



REGISTRATIONS

Professional Engineer: NC #022534, SC #20105, GA #PE027670, TN #108251
AWS American Welding Society: Certified Level II NDE Technician
NICET Institute: Certified as Level II Technician in Soils, Concrete and Asphalt

PROFESSIONAL ORGANIZATIONS

American Society for Testing and Materials (ASTM)
Window + Door Manufacturer's Association (WDMA)
NC Structural Engineer's Association (SEA)

YEARS WITH FIRM: 17
YEARS IN INDUSTRY: 32

EDUCATION

North Carolina State University | Raleigh, NC
1991 Bachelor of Science, Civil Engineering
Law Engineering and Environmental Services
1994 +1995 Basic Risk + Project Management
Sto Institute: 2000 EIFS: Traditional + Drainage
Fireston: 2003 Building Products University

PREVIOUS EXPERIENCE

- Forensic Engineer, Campbell, Schneider & Assoc., LLC | Johns Island, SC | 1999 – 2003
- Principal Engineer + Department Manager, Titan Atlantic Group, Inc., 1997 – 1999
- Technician to Senior Engineer, Law Engineering and Environmental Services, Inc., 1988 – 1997

PRINCIPAL AREAS OF PRACTICE

- Building Enclosures (Roofs, Cladding, Fenestration)
- Structural Investigations
- Deficient Construction Investigations
- Catastrophe Assessments (Hurricane, Water/Decay, Snow, Fire, Tornado, Flood, Hail, Wood-Destroying Insects, Etc.)
- Facility Condition Assessments
- Environmental, Geotechnical and Construction Material Assessments and Testing

Martin has over 30 years of experience in the consulting engineering field, including three (3) years as an engineering technician. As a technician, he gained experience in laboratory and field quality control testing of asphalt, soils, concrete and metal construction materials. After graduating, Martin provided engineering support for investigations of construction-related problems, including comprehensive laboratory, field testing, and engineering analysis. This work was performed on buildings, bridges, and silos. Later, he managed several large design/repair projects, where he was initially responsible for diagnosing problems and designing repairs, and eventually coordinating the construction activities, including project administration and construction monitoring. Martin then served as the construction services/geotechnical engineering manager for an engineering consulting firm, providing subsurface explorations, foundation + pavement design services, and monitoring + testing of various structural system surveys for residential + commercial facilities. In this capacity, his engineering experience has included evaluation of system failures, primarily related to deficient construction and catastrophes. Martin's role in many of these projects has been as a non-advocate expert to provide engineering support for cases in litigation.

BUILDING ENCLOSURES

- Exterior Insulation + Finish System (EIFS) failure investigations, hundreds of residential + commercial structures | NC, SC
- Building Enclosure Investigations for multi-family wood-framed residential buildings in numerous subdivisions within a resort community, including roofs, windows, decks + waterproofing | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condominium buildings including roofs, exterior cladding, windows, decks + waterproofing | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condominium buildings including roofs, T1-11 wood siding, windows, decks + waterproofing | North Myrtle Beach, SC, Myrtle Beach, SC
- Building Enclosure Investigation for steel-framed condominium buildings including roofs, stucco cladding windows, decks + waterproofing | Hilton Head, SC
- Building Enclosure Investigation for wood-framed condo buildings including roofs, vinyl siding, structural framing, windows, decks + waterproofing | Wilmington, NC
- Building Enclosure Investigation for five-story reinforced concrete condo building - roof, brick veneer cladding, windows, + waterproofing | North Myrtle Beach, SC
- Building Enclosure Investigation for steel-framed condo building including stucco cladding + windows | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condo buildings including roofs, vinyl siding, structural framing, windows, decks + waterproofing | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condo buildings - roofs, vinyl siding, structural framing, windows, decks + waterproofing | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condo buildings - roofs, vinyl siding, structural framing, windows, decks + waterproofing | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condo buildings including roofs, vinyl siding, structural framing, windows, decks + waterproofing | Longs, SC
- Building Enclosure Investigation for reinforced concrete condominium building including light gauge metal framing, stucco cladding + windows | Myrtle Beach, SC
- Building Enclosure Investigation for wood-framed condominium buildings including roofs, stucco cladding, structural framing, windows, decks and waterproofing | Sunset Beach, NC
- Evaluation and repair of stucco cladding + curtain wall failures at numerous high-rise condo buildings | NC, SC
- Assessment of cladding and masonry construction, all school facilities of Caroline County School System | Bowling Green, VA
- Evaluation of brick veneer + wood-fiber cement cladding problems at a 4-story condominium building | Charlotte, NC
- Evaluation of multiple waterproofing issues (sub-grade and above grade) at a 4-story condominium building | Newbern, NC

BUILDING ENCLOSURES CONTINUED

- Evaluation of flashing problems at brick veneer cladding at Morehead City Police Department | NC

STRUCTURAL

- Structural assessment of roof and wall framing system, penthouse of a (6) six-story condominium building | Myrtle Beach, SC
- Floor framing assessments and repairs, Misty Woods Apartment Complex | Cary, NC
- Evaluation of cracking in (9) nine-story robotic cranes, Abbott Labs | Rocky Mount, NC
- Framing assessments/repairs, Timber Hollow Apartment Complex, Chapel Hill, NC
- Investigation of truss and CMU wall collapse due to deficient construction practices, new automobile repair building | Mooresville, NC
- Evaluation of deterioration of wood truss roof systems due to Fire Retardant Treatment (FRT) | Orangeburg, McCormick, Columbia, Clinton + Florence, SC
- Evaluation of existing framing for new Nuero/Angio Room at UNC Hospitals | Chapel Hill, NC
- Investigations of damage to structural framing of numerous commercial and residential buildings caused by water intrusion, settlement, and/or deficient construction practices
- Evaluation of WWII-era runways at Abandoned Army Base | Holly Ridge, NC
- Evaluation of damage to 300 + 1,000-foot-long concrete bridges | Pivers Island, NC + Petersburg, VA
- Evaluation of structural framing of 1920 era steam pump station | Lake Mattamuskeet Lodge, NC
- Evaluation of existing steel framing for installation of 18-inch diameter coolant piping | Matsushita Compressor Plant, Mooresville, NC
- Evaluation of cracking + repair design for concrete floor slabs of several large manufacturing facilities | NC, SC, VA
- Evaluation + repair design for 100-foot tall concrete phosphate rock silo | PCS Phosphate, Aurora, NC
- • Evaluation + repairs for spillway bridge | Robinson Nuclear Plant, Hartsville, SC
- • Evaluation + repair design for low slope dam spillway | Hyco Lake Hydroelectric Dam, Roxboro, NC
- Evaluation of reinforced CMU construction at new federal prison | FBOP, Edgefield, SC
- Investigated, designed + managed the excavation, replacement, and enclosure of coolant water piping loop | NC State University Research Reactor, Raleigh, NC
- Investigated + managed re-build of meat processing and refrigeration facility destroyed by fire | Lundy Packing, Clinton, NC

STRUCTURAL CONTINUED

- Investigation of 300' foot tall WSPA television tower collapse | Tryon, NC

ROOF SYSTEMS

- Condition assessment/asbestos sampling of all roofs at UNC Hospitals | Chapel Hill, NC
- Condition assessment of 500,000 SF PVC/ BUR roof | Eden, NC
- Evaluation + construction monitoring of spray polyurethane roof system, 17-story condominium building | Myrtle Beach, SC
- Evaluation of roof drain system failures, 200,000 SF warehouse | Greenville, SC; 7-story condo building | Litchfield Beach, SC
- Roofing assessment + construction monitoring for numerous buildings | Fort Bragg Army Base, NC
- Construction monitoring of 4-ply BUR system, 400,000 SF warehouse | Charlotte, NC
- Evaluation of reinforced PVC roof membrane installation, 3-story condominium building | Myrtle Beach, SC
- Evaluation of numerous reinforced acrylic roofing membranes | NC, SC
- Evaluations of numerous roof system failures, various commercial and residential buildings, NC, SC, TN, GA + FL

FACILITY CONDITION ASSESSMENTS

- Portfolio of 11 Highwoods Properties facilities, Atlanta, GA; Richmond, VA; Norfolk, VA; Charlotte, NC
- Numerous Cornerstone Properties apartment complexes | NC, SC + VA
- Numerous First Union Corporation apartment complexes + commercial buildings | NC, SC
- New Winston Hotels | NY, NV, AZ, + GA
- Portfolio of 12 Koger Center office buildings | Raleigh, NC
- Tanger Outlet Shopping Centers | NC, GA
- Fairchild Hills Public Housing | Winston-Salem, NC
- Condition assessment of mechanical, electrical, plumbing, and fire protection systems at 30 existing New Hanover Co. school facilities | Wilmington, NC
- Evaluation of existing utilities + zoning requirements at fifteen (15) Food Lion grocery stores | NC, SC, + VA

CATASTROPHE ASSESSMENTS

- Investigation of a slip and fall at retail establishment | Myrtle Beach, SC
- Investigation of a slip and fall at shopping mall | Myrtle Beach,

CATASTROPHE ASSESSMENTS CONTINUED

- Investigations of wind and flood related structural, exterior and roof damage to numerous commercial + residential structures after Hurricanes Charley, Frances, Ivan and Gaston, 2004
- Investigations of wind and flood related structural, exterior and roof damage to numerous commercial and residential structures after Hurricane Isabel, 2003
- Investigations of wind + flood related structural, exterior + roof damage to numerous commercial + residential structures after Hurricanes Dennis + Floyd, 1999
- Investigation of wind and flood related damages + shoring recommendations after Hurricane Fran | Kure Beach, NC 1996
- Investigation of numerous wood, concrete and steel-framed buildings damaged by fires | NC, SC
- Investigation of hail + wind damage to roofs of numerous residential and commercial buildings | NC, SC, GA + TN
- Evaluation of "crop circles" on EPDM roof membrane, office building | Charlotte, NC
- Investigation of buildings damaged by tornadoes | SC, TN
- Support for structural evaluation of buildings damaged by 1994 earthquake | Northridge, CA
- Investigation of damage to numerous residential structures due to impacts from falling trees | NC, SC, GA + TN
- Investigation of buildings damaged by impacts from automobiles | NC, SC
- Investigations of plumbing failures and damage. Four (4) cases | Myrtle Beach, SC
- Investigations of termite damages at numerous commercial + residential buildings | SC
- Investigation of powder post beetle damage at several residences | SC
- Investigation of numerous swimming pool failures | GA, SC
- Assessment of foundations after wildfires | Westgate Resorts, Gatlinburg, SC

GEOTECHNIC + ENVIRONMENTAL ASSESSMENTS

- Geotechnical studies, eight (8) new school sites ranging from 2 to 56 acres | Mecklenburg and Union Co. Schools, NC; Bamberg Co. Schools, SC
- Geotechnical study and foundation design for new dormitory | Davidson College, Davidson, NC
- Geotechnical, Phase I + Phase II Environmental studies for numerous commercial, residential + institutional projects | NC, SC
- Phase I + II site assessments, proposed school sites | Union Co. + Mecklenburg Co. Schools, NC
- Phase I Site assessment for an existing 8,000-acre development | South Mountain Development, Rutherford Co., NC

MATERIAL ASSESSMENT + TESTING

- Investigation of numerous reinforced concrete structures (buildings, pools, water treatment plants, etc.) including ultrasonic, corrosion potential, chloride ion and petrographic studies | NC, SC VA + PA
- Investigation of several plaster ceiling failures | GA, SC
- Investigation of wire rope failure | Hemingway, SC
- Investigation of numerous swimming pool failures | SC, GA
- Managed cementitious grout verification program | CP&L Nuclear Plants, NC & SC
- Managed steel bearing QC program | Timken Bearing Company, Gaffney, SC
- Construction Materials Testing (CMT) for 6,000-foot long runway at Smith-Reynolds Airport | Winston Salem, NC
- CMT manager for numerous Gaston County Schools construction projects | Gastonia, NC
- CMT manager for construction of new research building at University of NC at Charlotte, NC
- Pressurized tank testing, All underground storage tanks | Fort Bragg Military Base, NC