

FORCON INTERNATIONAL

RAYMOND RAMOS, P.E., R.R.C.

SUMMARY

Since 1984, Mr. Ramos has been actively involved as a roofing engineer in the evaluation, design and construction management of roofing systems on a wide range of governmental, institutional, commercial, and industrial facilities. He has performed all aspects associated with the evaluation of numerous roof assemblies that have been or are currently on the market, to include conducting nondestructive moisture surveys (infrared and nuclear), laboratory testing of various built-up and single ply materials, and life-cycle costing. Through the years, Mr. Ramos has been retained to conduct roof failure investigations and serves as an expert witness in those fields.

EDUCATION

Bachelor of Science in Civil Engineering - Virginia Military Institute, 1976 (with Distinction)

REGISTRATIONS & CERTIFICATIONS

Registered Professional Engineer:

- Florida # 46217
- Georgia # PE017968
- North Carolina # 013022
- South Carolina # 25894
- Virginia #059621

Registered Roof Consultant # 040

PROFESSIONAL ASSOCIATIONS

Roof Consultants Institute - Member; RCI Instructor Staff

Council of Facility Planners International – Member; Georgia Chapter Past Board of Directors

Society of American Military Engineers (Atlanta Post) – Member; Past President; Board Member

American Society of Healthcare Engineers (Georgia Chapter) – Associate Member

North Carolina Healthcare Engineers Association – Associate Member

Georgia Association of Physical Plant Administrators – Associate Member

CONTINUING EDUCATION

Courses and/or certifications completed in the following:

- LEED for Existing Buildings Technical Review, 2008
- Metal-ERA Wind Edge Design, 2006
- Specifying Steel Joists & Girders, Steel Joist Institute, 2004
- Brick Construction Details, Southern Brick Institute, 2004
- Construction Administration, Project Delays, 2003
- ASCE Wind Design, 2003
- RCI Courses
 - Roof Technology I and II
 - Roof Top Quality Assurance
 - Drainage
 - Wind Design

CAREER HISTORY

FORCON International – Roofing Consultant

Conduct forensic engineering investigations and provide expert witness testimony for cases involving storm related damage and/or design and construction defects of roofs/roofing systems for residential, institutional, commercial and industrial buildings.

Raymond Engineering-Georgia, Inc., Atlanta, GA – President

Provides building envelope engineering and consulting services; architectural, structural, mechanical, construction management; to governmental, institutional, and commercial clients throughout the United States. Services include surveys, design, non-destructive testing; water testing; drone surveys; construction administration, quality assurance inspection services; and litigation support. Building envelope experience includes virtually every roofing system on the market; wall and waterproofing systems, along with experience with a wide variety of coatings. Clients include K12 and higher education, Local and State governments, insurance and surety companies, property managers, hotels, banks, condominium associations, Department of Defense, GSA, VA, and a variety of Air Guard and Reserve entities.

Westinghouse Environmental & Geotechnical Services, Inc., Atlanta, GA

- **Department Manager, Roof Engineering Services:** Responsible for starting up a roof engineering department for the Atlanta, Georgia office. Duties included marketing, project staffing, report writing, preparation of specifications and drawings, contract administration, profit and loss, training and department staffing.
- **Department Manager, Applied Sciences:** Responsible for all project professionals providing services in the fields of civil and environmental engineering, industrial hygiene, geology and hydro geology. Duties have included coordination of project and personnel resources, training, administration, marketing, senior review of documents, salary and performance reviews.

Robert M. Stafford, Inc. Consulting Engineers, Charlotte, NC

- **Project Engineer:** Responsible for the planning and execution of activities of assigned roof engineering projects. Was responsible for the design, evaluation and/or contract administration of projects having fees of approximately \$200,000 per year. Work was accomplished under the direction of the company president. Types of projects included schools, shopping centers, offices, warehouses and industrial complexes.
- **Marketing Manager:** Responsible for developing and implementing a company sales program. These duties were accomplished while still maintaining an active project load.

U.S. Army Corps of Engineers

Assignments included the following:

- Engineering Officers Basic Course, Ft. Belvoir, Virginia
- Platoon Leader, 2nd Engineer Battalion, 2nd Infantry Division, Camp Castle, Korea
- Battalion S-1, 2nd Engineer Battalion, 2nd Infantry Division, Camp Castle, Korea – Army Commendation Medal
- Earthmoving Platoon Leader, 548th Engineer Battalion, Ft. Bragg, North Carolina
- Company Executive Officer, 548th Engineer Battalion. Ft. Bragg, North Carolina
- Battalion Construction Officer, 548th Engineer Battalion, Ft. Bragg, North Carolina
- Company Commander, 548th Engineer Battalion, Ft. Bragg, North Carolina
- Engineering Officers Advance Course, Ft. Belvoir, Virginia - Top Officer Graduate
- Company Commander, Charlotte Recruiting Battalion, Charlotte, North Carolina – Army Commendation Medal

HIGHLIGHTED PROJECTS

Instructional Services Center Re-roofing, Duluth, Georgia: Raymond Engineering was retained by Gwinnett County Schools to prepare plans and specifications for the reroofing of approximately 100,000 square feet of a building being converted into the Gwinnett County Schools Central Administration Office. Work included the development of detailed contract documents, conducting the pre-bid conference and bid opening, preparing contracts, providing

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construction administration, and quality assurance inspection during the installation of the new roofing system. The work also included the development of repair procedures to the parapets and eaves on a second building which is part of the ISC campus.

Re-roofing Design, Construction Management, & Quality Assurance Services, Gwinnett County Schools: Raymond Engineering was retained by Gwinnett County Schools to prepare plans and specifications for the re-roofing of over 100 schools. Work includes the development of detailed contract documents, conducting pre-bid conference and bid opening, preparing contracts, providing construction administration, and quality assurance inspections during the installation of the new roofing system. Additionally, roof evaluation surveys, infrared moisture surveys, and general roof consulting services were provided. Raymond Engineering provides quality assurance inspections of almost every roof installed on every new facility. Since beginning this service with the school system in 1992, we have performed such inspections for over 100 schools and/or school additions.

Mattel Facility, Murray, Kentucky: As a consultant to Forcon, Mr. Ramos' work consisted of working with the attorneys representing the surety to investigate the failure of a roof system installed approximately 6 years ago. Work consists generally of performing a visual inspection of the existing roof system, performing selected laboratory analysis of the membrane to evaluate its existing condition relative to its original state, assisting the attorneys in the review of documents, and assisting with issues during the litigation process.

Re-roofing Design, Construction Management, & Quality Assurance Services, Fulton County Schools: Raymond Engineering was retained by Fulton County Schools/Parsons to prepare plans and specifications for the re-roofing and repairs of various schools in the county since the time that Parsons took over the role of Capital Projects Program Manager for the school system. Work included the development of detailed contract documents, conducting pre-bid conference and bid opening, preparing contracts, providing construction administration, and quality assurance inspections during the installation of the new roofing systems. Jacobs has taken over the program management contract and Raymond Engineering continues to provide roof engineering services to the County.

Re-roofing of Concourses A - D, and the Central Utility Plant, Hartsfield Atlanta International Airport, Atlanta, Georgia: Raymond Engineering has provided re-roofing design, construction management, and full-time quality assurance inspection services over a 10year period to Atlanta Airlines Terminal Corporation.

Gwinnett County Board of Commissioners: Raymond Engineering was retained by the Facilities Division to assist in conducting roof failure investigations, quality assurance inspection services during the installation of roofing systems, roof evaluation surveys, reroofing design services, and review of architectural plans and specifications relative to the roofing systems on new facilities. They have continued to assist the county with its roofing program since 2004.