



A/E Services for Roofing and
HVAC Replacement for
West Virginia Regional Jail Authority
Request #RJCMNT001
December 9, 2008

EXPRESSION OF INTEREST

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STATE OF WV



Request for Expression of Interest -
A/E Services for Roofing and HVAC
Replacement for West Virginia
Regional Jail Authority
Request #RJCMNT001
December 9, 2008

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Gale Associates, Inc.

11781 Lee Jackson Highway | Fairfax, VA 22033
P 703-383-0815 F 703-383-0818 www.gainc.com



Gale Associates, Inc.

11781 Lee Jackson Highway | Suite 340 | Fairfax, VA 22033
P 703.383.0815 F 703.383.0818 www.galeassociates.com

December 8, 2008

State of West Virginia
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305-0130

Attn: Buyer #32 – John Abbott

Re: Expression of Interest
Architectural and Engineering Services for Roofing and HVAC
Replacement for West Virginia Regional Jail Authority
Request #RCJMNT001

Dear Mr. Abbott:

Gale Associates, Inc. (GALE) is pleased to respond to the above-referenced Request for Expression of Interest. Enclosed are an original and 5 copies of our submission.

Established in 1964, GALE is a 100-plus person, independent architectural and engineering consulting firm specializing in **building envelope (roof, walls, windows, waterproofing)** technology. Our Registered Professional Engineers, Registered Architects, Registered Roof Consultants, and Building Technology Specialists have an extensive background and expertise in performing roof evaluation and renovation projects.

For this project, GALE will team with Century Engineering, Inc., who will provide mechanical/electrical engineering services. GALE and Century have successfully worked together on numerous projects in the past.

Our team has the experience, knowledge, and staff necessary to meet your needs. We look forward to the opportunity to work with the West Virginia Regional Jail Authority. Thank you for your consideration.

Very truly yours,
GALE ASSOCIATES, INC.

Todd R. McMahon
Building Technology Division

Edward J. Madden, RRC
Principal

EJM:peb

Boston
Baltimore
Orlando
San Francisco

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price-fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:


Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name: Gale Associates, Inc.

Authorized Signature:  _____ Date: 12/8/08

Purchasing Affidavit (Revised 07/01/08) Edward J. Mardgen
Vice President

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A. Statement of Firm's Experience

Established in 1964 with offices in Virginia, Maryland, Massachusetts, Florida, and California, **Gale Associates, Inc. (GALE)** is a 100-plus person independent engineering consulting firm. GALE's Building Technology Group provides specialty consulting in building envelope (roof, wall, window, waterproofing) technology and structural engineering.

We perform inspections, investigations, moisture surveys, and evaluations, and prepare reports, studies, maintenance programs, cost estimates, and Construction Documents for Contractor bidding. We provide peer review and design assistance regarding the building envelope components of a project, both existing and new construction. We provide construction period services, which include shop drawings and submittal reviews, attendance at pre-construction and project progress meetings, on-site daily inspection, punchlist inspection, and as-built drawing preparation.

We perform building envelope condition assessments and assist our clients with prioritization of repair/replacement projects and development of maintenance plans and long range budgets.

GALE's in-house team members and technical support staff are experienced in all phases of roof renovation projects. Fully 60% of GALE's total staff are dedicated solely to specialized inspection, analysis, design, and construction period services on renovation projects for roof, wall, window, and waterproofing systems and supporting structures.

GALE has performed roof, wall, window, waterproofing investigations, evaluations, studies, design, and inspection services on over 10,000 buildings at various locations throughout the U.S. The total construction value of roof, wall, window, waterproofing repair and replacement projects designed by GALE exceeds 550 million dollars.

We are familiar and experienced with all roof and waterproofing system types: bituminous built-up, modified bitumen, polyurethane foam, single plies (EPDM, PVC, Hypalon, etc.), and various fluid-applied systems, as well as conventional sloped roof systems such as asphalt shingle, slates, tiles, wood shakes, and various metal roof systems.

We are familiar with various wall and window system types: wood, masonry, concrete, metal, EIFS, glass/aluminum curtain walls, rain screen walls, preformed metal, structural glazings and fixed and operable thermal glazings, etc.

We are trained and licensed to operate specialized equipment such as infrared cameras, self-illuminating borescopes, and nuclear moisture gauges.

GALE has been involved with the testing, sampling and design for removal and disposal of asbestos, lead paint, and hazardous materials as they relate to roof, wall, window

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repair and replacement projects. We are experienced and familiar with sampling in accordance with NIOSH procedure and comply with EPA and OSHA federal standards. We are not a certified testing lab. Therefore, we typically rely on small/disadvantaged business consultants to provide specialized quantitative testing.

We have provided comprehensive building envelope consulting services to public and private clients throughout the country, including, but not limited to:

Local Governments and Public Schools

- Arlington County
- Stafford County
- City of Richmond
- City of Roanoke
- Loudoun County
- MD Dept. of General Services
- Anne Arundel County
- Charles County
- Frederick County
- Montgomery County

Government Agencies:

- Department of the Navy
- Department of State
- Department of the Army
- U.S. Air Force
- U.S. Postal Service
- General Services Administration
- Veterans Administration

Renowned Universities:

- West Virginia University
- University of Virginia
- Johns Hopkins University
- Stanford Research Institute
- Virginia Tech
- Harvard University
- MIT
- Gallaudet University
- University of Maryland
- Union Theological Seminary and Presbyterian School for Christian Education

Due to our extensive experience on literally thousands of past roof renovation projects, we have an excellent database of various types of inspection, evaluation, design, and construction inspection projects, which enables us to readily reference these projects with regard to budget, scheduling, and technical criteria. While each project is unique, this database assists in producing quality projects in compliance with the client's budget and performance schedule.

Our staff is equipped with state-of-the-art technology and equipment to reference the most updated standards for building envelope technology as well as reference GALE's historical data. These tools, along with our experience and commitment to client satisfaction, assure that each project meets or exceeds client requirements and expectations.

GALE professionals work as a team to ensure project continuity and consistency. They meet challenges and unexpected project demands responsibly and effectively. Please refer to the resumes for individual team members included in Section IV of this submission.

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Century Engineering, Inc. (Century) is a multi-discipline consulting engineering firm, headquartered in Hunt Valley, MD, engaged in the planning and design of a variety of facilities, structures, and engineering projects for both public and private sector clients. Century opened an Elkins, WV office in September of 1998. In April 2008, Century purchased Benatec Associates, who had an existing Fairmont, WV office. In the fall of 2008, they merged the two offices into the larger quarters at the Fairmont location.

Century's staff of over 400 technical and support personnel include mechanical, electrical, and plumbing engineers, as well as structural and civil engineers. They offer in-house design support facilities, full-service computer and graphics capabilities, and construction period services.

For this project, Century will provide mechanical/electrical/plumbing engineering services related to the replacement of the HVAC and air handler units.

GALE and Century have worked together on multiple projects for roofing and HVAC replacement in the past for a variety of clients. Our personnel are familiar with each other and accustomed to collaborating on roof replacement projects requiring concurrent HVAC system repair and/or replacement.

B. Statement of Firm's Understanding of Regulations

As part of our investigation, evaluation, and design of a roof and HVAC renovation project, we take into consideration all applicable national and local codes. Cost analyses and estimates are done using industry standard published cost estimating data and format.

C. Statement of Size, Nature, and Status of Other Major Projects

GALE's Fairfax, VA and Baltimore, MD offices comprise our Mid-Atlantic office, with a combined total of 25 professional and support staff. Services under this contract would be provided by our Fairfax office, supplemented with personnel from our Baltimore office as necessary. At this time, our Fairfax office is providing ongoing consultation on several projects that are currently under construction. In addition, they are in the process of designing roof replacement projects for two Frederick County schools.

We have the available staff and expertise to provide the design services required for these three facilities in a prompt and professional manner and to comply with project timelines.

D. Narrative of Understanding of Operational, Security, and Functional Requirements.

GALE staff members are experienced with and have provided services for all aspects of roof renovation projects on occupied facilities such as jails/detention centers, federal

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facilities, schools, local government courthouses and offices, universities, data centers, etc. We are aware of the specialized needs with regard to security and safety requirements and minimizing disturbance to building occupants and equipment. We have designed complex roof replacements on facilities that required phasing over multiple construction periods.

E. Statement of Firm's Understanding of the Work Environment

GALE has provided design services for roof, wall, and window repair/replacement projects for multiple correctional facilities, to include the Roanoke City Jail, the Oliver Hill Courthouse and Juvenile Detention Center, and various detention centers in Montgomery County. We possess the requisite knowledge and experience concerning security issues related to the inmates, staff, and equipment of a correctional facility that will allow us to design these roof/HVAC replacement projects with minimal disturbance to the operation of the facility.

F. Statement of Firm's Plan of Approach and Timeline for Project

GALE has been providing specialized roof consultation services for over 45 years. Over this time, we have developed a specific approach to the various phases of a roof renovation project. Typically, GALE projects involve four phases:

- (1) Investigation, evaluation, and report preparation
- (2) Preparation of construction documents (design)
- (3) Bid period services
- (4) Construction period services (to include quality control inspection)

While the Request for Expression of Interest does not specifically request Construction Period Services, we have outlined, for your information, the services we typically provide our clients on a project such as this.

Investigation and Evaluation - (3-4 weeks from NTP)

- Initiate the project by reviewing original plans, specifications, and similar data that will provide us with an understanding of the existing building envelope systems.
- Interview onsite personnel familiar with the facility.
- View the interior of the facility to locate damage due to reported leakage. Observe accessible framing and decking components.
- Perform an onsite investigation of the roof systems and related accessory construction. Measure-up roof/walls and verify dimensions and penetration locations.
- Perform test cuts to determine existing details and as-built conditions, as well as roofing subsurface conditions. Representative membrane samples will be taken for asbestos sampling.

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- Perform moisture survey using Infrared Thermography or Nuclear Moisture Scan and locate areas of anticipated moisture intrusion.
- Evaluate the roof and related accessory construction for conformance with present code and industry standards.
- Perform engineering analysis to establish design criteria such as wind uplift resistance, fire ratings, drainage capacities, slope to drain, and vapor retarder requirements.
- Prepare and submit Condition Report that outlines our findings and recommendations for repair/renovations to the roof systems.
- Meet with Owner to discuss report and recommendations and define scope of work and budget requirements.

Design - (6-8 weeks depending upon number of submissions; does not include client review time)

- Prepare Schematic Design and Design Development Submissions as determined by the requirements of the individual project.
- Prior to commencing with the final design phase of the project, Gale will request written comments to assure compliance with your requirements.
- Design the chosen construction measures and prepare plans, details, cost estimates, and technical specifications suitable for soliciting contractor bids for the work.
- Assist with the preparation of non-technical provisions of the contract documents by reviewing standard contract and bid documents for agreement with the technical sections of the specification.
- Provide initial copies of the Construction Documents for review and written comments prior to final submission.
- Provide the required number of bound sets and one reproducible set of the final Construction Documents (also provide in electronic format).

Bid Phase – (To be determined by client)

- Assist with advertisement/solicitation of contractors.
- Attend pre-bid meeting at the project site.
- Prepare addenda.
- Respond to RFIs (Requests for Information).
- Review bids prior to contract award for the remedial construction.

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Construction Phase – (To be determined by client and contract)

- Receive and review Contractor's shop drawings and submittals for acceptance or rejection prior to project start-up.
- Attend a pre-construction meeting at the site to review project requirements from a technical and non-technical aspect.
- Perform onsite observations (construction monitoring) of the Contractor's work. Submit written reports outlining methods and materials of construction.
- Attend progress meetings as required to review Contractor progress and performance. Provide written progress meeting minutes and distribute minutes.
- Review periodic payment requests for the project made by the Contractor.
- Provide reviews of technical data and Change Order requests during the course of construction.
- Perform additional site visits as required to review job progress and address specific questions/concerns.
- Perform an inspection after job completion and prior to Contractor demobilization from the site.
- Provide an inspection report that will identify and locate those items that are incomplete and/or are non-compliant with the Construction Documents. Each item must be addressed by the Contractor prior to final inspection by Gale.
- Review final project closeout documents: Contractor's lien release and Consent of Surety, Contractor's Guarantees, Manufacturer's Warranties, and final Contractor payment requisition.

GALE enjoys an excellent reputation for the ability to perform services in a timely, professional manner. Our project management approach and comprehensive quality control program provide a frequent method of checks and balances. This ensures attention to detail, accuracy, and project continuity at every point in the project development process. GALE's quality control program commences prior to project start-up when the decision is made to solicit a project. It is stressed from initial fieldwork and surveys through reports, design, and construction. This process has created comprehensive reports and design documents with few change orders during construction.

To ensure that project parameters are met, each project is assigned a team: Principal-In-Charge, Quality Control Manager, and a Project Manager. Each team is also assigned a Project Engineer, Field Engineer, and subconsultants (if required), and a CAD Operator. Our team approach assures continuity and provides a system of checks and balances at each stage of the project.

Regular in-house meetings are held to ensure interdisciplinary coordination review and compliance between technical, procedural, scheduling, and administrative



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requirements. Prior to each project submission, the Project Manager, following his final review, submits the project for quality control review and comment. Only after this final review is the project submitted.

The advanced project management and accounting software system employed by GALE enables each Project Manager to access detailed, real-time financial information from his/her desk, assuring fiscal management of the project. This system ultimately enhances project risk management controls and assures project continuity should there be a loss of key personnel.

GALE takes a proactive approach to quality control. We understand the importance and value of communicating with clients, subconsultants, and coworkers to help minimize errors and costs. This fundamental principle allows GALE to maintain quality performance for our clients. **GALE's quality of work and compliance with performance schedules are issues of the highest regard.**

G. References

Below is information requested concerning our work. We also urge you to contact the references listed on the project sheets included in Section V of this proposal.

West Virginia University P O Box 6430 Morgantown, WV 26506 Contact: Dan Batson, Assistant Director (304) 293-4851 daniel.batson@mail.wvu.edu	City of Roanoke 1802 Courtland Road, NE Roanoke, VA 24012 Contact: Gareth McAllister (540) 853-2593 Gareth.McAllister@roanokeva.gov
Frederick County Public Schools Construction Management Department 7446 Hayward Road Frederick, MD 21702 Contact: Roger Fritz (301) 644-5153 roger.fritz@fcps.org	WVS Companies 5000 Old Osborne Turnpike Richmond, VA 23231-3000 Contact: Jason Vickers-Smith, AIA (804) 222-6771 j.vickers-smith@wvscompanies.com

H. Statement Regarding Litigation/Arbitration Proceedings

GALE is not and has not been involved in litigation or arbitration proceedings related to its performance of site representative services.

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I. Statement Regarding Disbarment

GALE has never been barred from bidding or proposing government contracts for the federal government or any state.

J. Statement Regarding Procurement Laws

GALE states that it has no knowledge of any procurement laws in the State of West Virginia that would affect the potential award of the contract for this project.

Proposed Project Team

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Principal/Contract Manager
Edward J. Madden, RRC
Principal

Primary Contact
Todd R. McMahon
Project Manager

Principal/Quality Control Manager
Jon F. Lindberg, P.E., RRC
Vice President

Building Technology

Rick L. Cottle, P.E.
Project Manager

Christopher R. Coleman, P.E., LEED-AP
Project Manager

Edwin D. Eckard, II, RRC
Staff Engineer/Designer

R. Thomas Brown, CDT, RRC
Staff Engineer/Designer

Chad L. Majewski, RRO
Senior Engineering Technician

In-House Specialists

Elizabeth P. Lewis, P.E.
Structural Engineer

James E. Saizan, R.A.
Project Architect

Mark L. Fiorucci
IT Specialist/ Sr. AutoCAD Operator

Subconsultant Century Engineering, Inc.

Mark F. Degasparre, P.E.
Electrical Engineer

Steven W. Manetto, P.E., LEED-AP
Mechanical Engineer

Chad E. Kulawiak, P.E., LEED-AP
Electrical Engineer

Richard M. Lindemon, P.E., LEED-AP
Mechanical Engineer

Hal Allen, LEED-AP
Sr. Electrical Designer



**Project Team Resumes
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Resume: Edward J. Madden – Principal/Contract Manager

Education: Colgate University, Bachelor of Science; Harvard University, Building Envelope Failures; Property Investigation, Evaluation and Design

Experience:

Mr. Madden has 30-plus years of experience in the investigation, evaluation, design, and construction of building envelopes (roof, wall, window, waterproofing) and structural support systems. His credentials include registration as a **Registered Roof Consultant (RRC)** accredited through the Roof Consultants Institute (RCI) formal written exam process.

Mr. Madden is responsible for proper staffing of projects, budget management, and setting project milestones to assure successful completion in accordance with contract requirements. He is involved in quality assurance reviews at each phase of a project, to include initial field work, engineering evaluation, reports, drawings, and specifications, as well as services through the construction phase of a project.

Mr. Madden has been responsible for roof, wall, window, and waterproofing investigations, evaluations, and moisture surveys (infrared and nuclear) on over 50 million square feet of roofing/waterproofing performed on occupied facilities. He has been responsible for hundreds of roofing and building envelope design projects for various local governments such as Loudoun County, Montgomery County, City of Richmond, City of Roanoke, Henrico County, as well as various public school systems throughout the Mid-Atlantic region (Arlington County Public Schools, Stafford County Public Schools, Anne Arundel County Public Schools, Carroll County Public Schools, Charles County Public Schools, and Howard County Public Schools, among others. He has also provided professional consulting services for prestigious universities such as University of Virginia, West Virginia University, Johns Hopkins University, University of Maryland, and Harvard University, to list a few.

Mr. Madden's roofing/waterproofing expertise includes knowledge of the performance of many types of systems such as bituminous built-up, modified bitumen and various single plies (EPDM, CSPE, CPE, PVC, PIB, etc.) as well as sloped roof coverings such as asphalt shingles, copper, slate, tile, and metal roofing. He is knowledgeable in various wall system types: masonry, concrete, wood, metal, EIFS, etc.

Mr. Madden is knowledgeable of the administrative, procedural, technical, and safety requirements for handling roofing and building envelope repair and replacement projects on occupied facilities.

Years Related Experience With this firm: 26 Other Firms: 5

Professional Societies and Affiliations

- Roof Consultants Institute (RCI)
- Association of Higher Education Facilities Officers (APPA)
- Chesapeake Area Society of Healthcare Engineering (CASHE)
- Association of School Business Officials (ASBO)
- American Consulting Engineers Council (ACEC)
- Building Environment & Thermal Envelope Council (BETEC)
- American Institute of Architects (AIA)

Professional Certifications:

- Registered Roof Consultant (RRC) #0099)

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Resume: Jon F. Lindberg, P.E., RRC – Principal/Quality Control Manager

Education: University of Maine, Bachelor of Science, Civil Engineering; Lesley College, Master of Science, Business Management

Experience:

Mr. Lindberg has 30-plus years of experience in the investigation, evaluation and design of building envelope (roof, wall, window, waterproofing) systems. He provides professional consulting and engineering services for roof and building envelope repair/replacement design projects. Mr. Lindberg also performs quality control reviews on projects of this nature.

Mr. Lindberg is skilled in the administration of multi-location/multi-facility projects. He has provided services for public and private sector clients throughout the country: national insurance companies, renowned universities, and Department of Defense, among others. He has been responsible for investigation; evaluation; repair recommendations; cost estimates; projected longevities and long-term budgets; and design of various building envelope, waterproofing, and structural systems.

Mr. Lindberg specializes in the investigation and analysis of failed building envelope systems and supporting structures, including cost analysis and the proper institution and implementation of Building Envelope Management Programs.

Mr. Lindberg's credentials include registration as a **Registered Professional Engineer and a Registered Roof Consultant (RRC)** accredited through the Roof Consultants Institute formal written examination process. As a Professional Engineer and Registered Roof Consultant, he provides expert testimony and forensic investigation for a wide variety of projects, including structural, roofing and waterproofing, and corrosion failure projects. His experience with roofing systems (built-up, modified bitumen, and single ply; copper, slate, and other composite type roofs) and related structural components is extensive.

He is also responsible for directing technological training and quality assurance programs for the Building Technology Division.

Years Related Experience With this firm: 28 Other Firms: 5

Professional Societies and Affiliations

- American Council of Engineering Companies (ACEC)
- National Institute of Building Sciences (NIBS)
- American Society for Testing and Materials (ASTM)
- Society of American Military Engineers (SAME) Sustaining Member
- Roof Consultant Institute (RCI)
-

Professional Certifications:

- Registered Roof Consultant (RRC) #0108
- Registered Professional Engineer (WV #10091)
- National Council of Examiners for Engineers & Surveying (NCEES)

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Resume: Todd R. McMahon – Project Manager/Primary Contact

Education: University of Maryland, Bachelor of Science

Experience:

Mr. McMahon manages the Fairfax, VA office. He is the primary contact for all client services in this office. He sets schedules and staff assignments for projects. He works directly with the principal-in-charge to establish proper staffing, budgets, and milestones to assure client requirements are met and client satisfaction is achieved. As a Project Manger, he also manages the day-to-day activities of projects and client contact.

His credentials include certification as a **Registered Roof Observer (RRO)** accredited through the RCI, Inc. formal written exam process. He is also a **Certified Document Technologist** accredited through the Construction Specifications Institute's written exam process.

Mr. McMahon performs existing site condition surveys, inspections, measure-ups, and field sampling and analysis. He prepares condition reports on existing roof, wall, window, and waterproofing systems. He prepares design documents for building envelope projects of all types.

His responsibilities also include attendance at pre-construction meetings; review of product submittals, shop drawings, and construction schedules; attendance at progress closeout meetings; and preparation of punchlist and project closeout during the construction period.

Mr. McMahon is experienced with the installation and performance of various roof/waterproofing system types, including: single-ply, built-up, modified bitumen, fluid applied, and various sloped roof systems (shingle, metal, slate, etc.), as well as various wall systems.

Mr. McMahon has extensive experience with providing investigations, studies, and design of roof and building envelope renovation projects for clients such as West Virginia University, Arlington Public Schools, Stafford County Public Schools, City of Roanoke VA, City of Richmond VA, Henrico County Government, Department of the Navy, Department of General Services, Anne Arundel County Public Schools, Howard County Public Schools, Charles County Public Schools, Frederick County Public Schools, Loudoun County Government, and Montgomery County Government.

Years Related Experience With this firm: 12 Other Firms: 7

Professional Societies and Affiliations

- RCI, Inc.
- Southern Region Association of Higher Education Facilities Officers (SRAPPA)

Professional Certifications:

- Registered Roof Observer #0367
- Certified Document Technologist
- Air Barrier Association of America Licensed Inspector # 10051

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Resume: Rick L. Cottle, P.E. – Project Manager

Education: Pennsylvania State University, Bachelor of Architectural Engineering Structural Option

Experience:

Mr. Cottle specializes in structural evaluation and design projects. His responsibilities include structural evaluation and the design of new and rehabilitative structural systems. Project responsibilities include verification of existing conditions and as-built construction and analysis of in-place structural components in accordance with present day code and loading requirements. He is familiar with building code and regulatory requirements. He prepares contract documents and provides peer review and design assistance services.

Mr. Cottle has performed due diligence and capital reserve studies regarding architectural components for large high-rise apartments, office buildings, and manufacturer's facilities. He has performed structural design for schools and small office buildings throughout Maryland, Virginia, and Pennsylvania. He has also provided extensive onsite construction period services for roof and wall renovation projects.

Years Related Experience: With this firm: 3 Other Firms: 15

Professional Societies and Affiliations:

- American Society of Civil Engineers (ASCE)

Professional Certifications:

- Registered Professional Engineer, MD #33320
- Registered Professional Engineer, VA #0402 043479

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Resume: Christopher R. Coleman, P.E., LEED-AP – Project Manager

Education: Johns Hopkins University, Bachelor of Science, Civil Engineering, With Concentration in Structures

Experience:

Mr. Coleman specializes in rehabilitation, evaluation, and design projects related to the roof and building envelope. His responsibilities include structural failure investigations (forensic analysis) and the design of new and rehabilitative building envelope and structural systems. He prepares contract documents for new and renovation projects. Project responsibilities include verification of existing conditions and as-built construction and analysis of in-place structural components in accordance with present day code and loading requirements. He is familiar with building code and regulatory requirements.

Mr. Coleman has a broad-based work experience with all aspects of specialized building envelope technology. He has performed analysis, design, and contract administration projects for various clients:

- Local Governments/Schools: City of Roanoke, City of Richmond, Anne Arundel County, Charles County, Howard County, Montgomery County.
- Colleges and universities University of Maryland, University of Virginia, Johns Hopkins University, Union Theological Seminary and Presbyterian School for Christian Education, Coppin State University
- Federal agencies: National Security Agency, Department of the Navy, General Services Administration, Veterans Administration
- State and local governments: State of Maryland, Montgomery County, City of Rockville, Maryland-National Capital Parks & Planning Commission

He has provided inspection, evaluation, and design services for various types of wall systems, to include brick masonry, concrete block, metal wall panel, and composite wall sheathing on concrete wood and steel framed buildings; and various types of roof systems, to include wood and metal trusses, wood, concrete, metal tectum, composite roof deck systems and built-up, single ply, modified bitumen, shingles, metal, and slate roof coverings.

Mr. Coleman has recently completed the course of study and examination for certification as a LEED Accredited Professional.

Years Related Experience: With this firm: 11 Other Firms: 3

Professional Societies and Affiliations:

- American Institute of Architects (AIA)

Professional Certifications:

- Registered Professional Engineer, MD #25824
- LEED Accredited Professional

**Project Team Resumes
West Virginia Regional Jail Authority
Request No. RJCMNT001**

Resume: Edwin D. Eckard, II, RRC – Staff Engineer/Designer

Experience:

Mr. Eckard performs investigation and evaluation of building envelope (roofs, walls, windows) systems. He is experienced in preparation of engineering studies, reports, cost estimates, specifications, and drawings. He also performs quality assurance construction monitoring during construction of complex and multiple projects. His credentials include certification as a **Registered Roof Consultant (RRC)** accredited through the RCI, Inc. formal written exam process.

He is experienced in performing roof condition surveys and investigations (to include measure-up, leak testing, destructive testing), investigative reports, preliminary designs (drawings and specifications), and cost estimating.

Mr. Eckard has an extensive background in the construction industry. He monitors the installation of roofing/waterproofing systems to assure that installation complies with contract specifications and provides reports documenting construction activities. He tabulates and quantifies credits to the Owner and/or extra work performed by the contractor (if any). He performs punchlist inspections and one-year warranty inspections.

Mr. Eckard is experienced with multi-facility evaluations, including utilization of facility management software. He is knowledgeable regarding the installation and performance of various roof system types, including single-ply, built-up roof systems; modified bitumen assemblies; and various sloped systems (shingles, metal, slate, etc.).

He has worked with a wide variety of clients throughout the Mid-Atlantic region, to include local/county governments, federal agencies (Dept. of the Navy, General Services Administration, U.S. Department of State), various public school systems, colleges and universities, as well as private sector clients.

Years Related Experience: With this firm: 9 Other Firms: 10

Professional Certifications:

- Registered Roof Consultant (RRC) #0575
- Certified Nuclear Gauge Technician (Troxler)
- Electrical Power Technician (Borg Warner Power Electronics)
- Air Barrier Association of America Licensed Inspector

**Project Team Resumes
West Virginia Regional Jail Authority
Request No. RJCMNT001**

Resume: R. Thomas Brown, RRC – Staff Engineer/Designer

Experience:

Mr. Brown is responsible for investigation and evaluation of building envelope (roofs, walls, windows) systems, as well as the preparation of engineering studies, reports, cost estimates, and drawings. His credentials include certification as a **Registered Roof Consultant (RRC)** accredited through the RCI, Inc. formal written exam process. He is a **Certified Document Technologist** and **Certified Construction Contract Administrator** accredited through the Construction Specifications Institute.

Mr. Brown's responsibilities include providing specialized engineering services on troubled roofing systems from initial project inspection through final construction and closeout. These services include initial field work (performing measure-ups, and defect inspections), field sampling and testing; and preparation of condition reports, repair recommendations, and prioritizations. Mr. Brown also provides construction period services and is familiar with standards related to roofing material performance. He has been involved in numerous roof repair and replacement projects for both the public and private sectors. He has provided construction support services, to include shop drawings and submittals review, attendance at pre-construction meetings, review of contractor payment and change order requests, onsite construction monitoring, punch list inspection, and final project close-out.

Years Related Experience: With this firm:7

Other Firms: 12

Professional Certifications:

- Registered Roof Consultant (RRC) #0600
- Construction Document Technologist
- Certified Construction Contract Administrator

**Project Team Resumes
West Virginia Regional Jail Authority
Request No. RJCMNT001**

Resume: Chad L. Majewski, RRO – Senior Engineering Technician

Experience:

Mr. Majewski performs investigation and evaluation of building envelope (roofs, walls, windows) systems. These services include initial field work (performing measure-ups, and defect inspections), field sampling, and testing. His credentials include certification as a **Registered Roof Observer (RRO)** accredited through the RCI, Inc. formal written exam process.

He performs quality assurance construction monitoring during construction. He monitors the installation of roofing/waterproofing systems to assure that installation complies with contract specifications. He prepares reports and deficiency logs documenting construction activities. His responsibilities include attendance at pre-construction meetings and the review of product submittals, shop drawings, and construction schedules.

Mr. Majewski is knowledgeable regarding the installation and performance of various roof system types, including single-ply, built-up roof systems; modified bitumen assemblies; and various sloped systems (shingles, metal, slate, etc.). He also has a background in AutoCAD and computer technology

Years Related Experience: With this firm:7 Other Firms: 12

Professional Certifications:

- Registered Roof Observer

Mark F. Degasparre, P.E. Electrical - Vice President

Active Registration:

1996 P.E. Maryland Registered #21805

1997 P.E. Pennsylvania Registered

#PE-053461-E

2005 P.E. Virginia Registered #41688

1997 P.E. West Virginia Registered

#13200

2004 August LEED Accredited Professional
(LEED A.P.)

Years Experience: 19

Education:

B.S. 1989 Electrical Engineering Johns
Hopkins University

Experience:

Mr. DeGasparre is the Vice President of our Mechanical & Electrical Division and his duties include implementing project design quality control, project and staff scheduling, assisting in marketing, and establishing and monitoring project budgets. Mark has experience working on many different types of electrical engineering projects including the design of indoor and outdoor medium and low voltage power distribution, indoor and outdoor lighting, fire alarm and security systems, and other miscellaneous special systems. Mr. DeGasparre is responsible for overall project successes both to Century and to our Clients, and is instrumental in our development of personnel training goals and development of new business opportunities.

NSA OPERATIONS BUILDING #1 ROOF RENOVATIONS, Department of Defense, Fort Meade, MD. Concept development and quality control for electrical design for 326,000 square foot roof system renovation in this high security facility (\$10 million/\$12-\$13 million for roof). The project involved modifications to, and demolition of electrical systems on, or integral to the roof. The work included cost estimating, substation removal, and the relocation of conduits with high and low voltage conductors as required. New cable tray systems were provided for communications conductors.

HARFORD COMMUNITY COLLEGE, JOPPA HALL, Quality Control for a phased expansion/renovation and partial alteration/conversion of academic building. The work includes construction of an addition to replace classroom portables and consolidation of the fine and applied arts programs, and adding additional space for a new degree program in building preservation and restoration. The mechanical room was converted into an academic laboratory space for the HVAC technology shop and plant storage space. All the

renovated spaces in Joppa Hall will be fitted with rooftop HVAC package units. This project also involved a campus-wide LEED study and USGBC Standards for a LEED Gold Certification.

SANDY SPRING NATIONAL BANK ADMINISTRATION CENTER, Olney, MD. Provided electrical construction phase services for renovation and conversion of 16,000 square foot split level furniture store into office space. 16,000 square foot building addition was also provided. A *rooftop addition* was provided to create more office space and to finish the building out to two complete stories. Design included lighting, power distribution, fire alarm system, centralized computer facility and intercom system for area of rescue assistance. Also included exterior lighting and duct bank installation to connect to adjacent Sandy Spring National Bank Headquarters Building for communications tie.

EULER ACITENANT FIT-OUT, Owings Mills, MD. Project Manager and Electrical Engineer for complete fit-out of fourth and fifth floors in new office building, totaling 60,000 square feet. Majority of space was open office with systems furniture. Other spaces included board room, conference rooms, lunchroom, file room and private offices. The majority of lighting was provided with recessed parabolic troffers. An 80KW gas-fired *roof-mounted generator* was provided to backup all computer equipment in the server room, IT lab and communication room, as well as associated air conditioning.

MOUNT SAINT MARY'S UNIVERSITY, BORDERS HALL RENOVATIONS, Emmitsburg, MD. Concept Development and Quality Control for M/E/P services for the design-bid-build method to renovate the existing two-story, 15,000 square foot Borders Hall classroom and administration building on the Mount St. Mary's University campus. The renovated facility remained a combination of office and classroom space. The work involved the complete gutting of the existing structure and included adding one elevator.

SALISBURY UNIVERSITY, CHESAPEAKE RESIDENCE HALL – Project Manager for modernization of a 45,000 sq ft 3 story structure to include complete construction documents for Fire Alarm System Upgrade and electrical drawings and specifications to support a *HVAC replacement project*. The scope of work also included a review and edit of the HVAC bid documents.

Steven W. Manetto, P.E., LEED A.P. Mechanical - Vice President

Active Registration:

1997 P.E. Maryland Registered #22514

1998 P.E. Virginia Registered #32635

1998 P.E. Washington D.C. Registered #10752

2004 August LEED Accredited Professional (LEED A.P.)

Years Experience: 24

Education:

B.S. 1984 Mechanical Engineering, Johns Hopkins University

Experience:

Mr. Manetto is a mechanical engineer, and supervisor for the project design including HVAC, chilled water, heating water, steam/condensate return systems, underground utility distribution, and chiller/boiler plants. His experience includes BOCA energy calculations, heat loss/heat gain calculations, cost estimates, economic analyses, building HVAC design, studies for existing mechanical systems and energy consumption calculations.

PRINCE GEORGE'S COMMUNITY COLLEGE, STUDENT CENTER, BLADEN & LANHAM HALLS, Prince George's County, MD. Project Manager for Specifications/Design for replacement of central air conditioning equipment, air handling units & controls, & roof exhausters in three institutional buildings. (approximately 235,067s.f.). Our design involved the removal of a section of the penthouse roof to allow for demolition and new work in the penthouse mechanical room. The work involved the replacement of 8 existing air handlers at the Largo Student Center, 1 existing reciprocating chiller in Lanham Hall, and 1 centrifugal chiller in Bladen Hall.

MD DEPARTMENT OF TRANSPORTATION - DESIGN AND ROOF REPLACEMENT AND AUTOMOTIVE & MAINTENANCE BUILDING, ON-CALL, Mechanical Engineer for all design services including calculations, construction drawings, specifications, and construction cost estimates for renovating the interior of the buildings to include upgrading of HVAC system, electric distribution, and lighting, and provision of ADA requirements.

BALTIMORE CITY ELEMENTARY SCHOOL # 23 ROOF REPLACEMENT, Baltimore, MD. Project Manager for the design of the temporary relocation of existing mechanical equipment to allow for the roof to be replaced.

NSA OPERATIONS BUILDING # 1 ROOF RENOVATIONS, Department of Defense, Fort Meade, MD. Project Manager for 326,000 s.f. roof system renovation in

this high security facility (\$10 million/12-13 million for roof). The project involved renovation of roof drainage systems, and miscellaneous mechanical, electrical, and structural systems on, or integral to the roof. The work included: evaluation of existing rooftop units, Cost estimating, Mechanical RTV's raised, ductwork relocating, design new units as needed, electrical disconnects and reconnects and Electrical conduit and wiring (raise too low for new roof).

NAVAL SUPPORT ACTIVITY (NSA) - ROOF REPLACEMENT, 6 BUILDINGS (12, 105, 210, 211, 212, 508), Mechanicsburg, PA. Principle Mechanical Engineer, Provided design and specifications (using Specs Intact) for the implementation of general exhaust/ventilation of (6) 120,000 square foot warehouses including the application of thermostatically controlled roof mounted propeller exhaust fans. Also included the coordination and replacement of roof mounted mechanical equipment in support of the replacement of roofing systems associated with (5) military support buildings including warehouse space. Performed all heating, cooling, and ventilating calculations, system layout, equipment sizing, duct design, CAD drafting, and specifications.

NAVAL AIR ENGINEERING STATION (NAES) - ROOF REPLACEMENT, Lakehurst, NJ., Principle Mechanical Engineer, Provided mechanical consulting services pertaining to the interface of existing roof-mounted mechanical equipment in support of roof replacement project.

SMITHSONIAN INSTITUTION, NATIONAL MUSEUM OF NATURAL HISTORY, EAST COURT INFILL BUILDING, Washington, DC. Design of HVAC systems for a 9-story office/laboratory facility constructed within the existing courtyard area. The scope of work included review of plans and programs to meet Smithsonian requirements, site investigations, economic analyses, design and preparation of contract documents and demolition plans. The new building serves as office and research space with high-density storage space for research specimens, a child care facility, a special collections library and public orientation center, educational space, kitchen facilities, small shops, and rest rooms. The library includes well lit reading spaces, on line computer services and staff assistance areas. Systems included air-handling units with variable frequency drives, air humidification and dehumidification with steam preheat and heating water reheat. District steam was utilized to produce heating water for the new building. Critical mechanical and electrical support services for the existing facility were maintained throughout the phased construction period.

Chad E. Kulawiak, P.E., LEED A.P. Electrical Engineer

Active Registration:

2002 P.E. Maryland Registered #27414

2002 P.E. Pennsylvania Registered
#PE060643

2004 August LEED Accredited Professional
(LEED A.P.)

Years Experience: 13

Education:

B.S. 1995 Electrical Engineering, Penn
State University

B.A. 1995 Physics, Slippery Rock University

Experience:

Mr. Kulawiak is a Senior Electrical Engineer and project manager for a variety of projects which include power distribution, lighting, emergency power, fire alarm systems, and electrical sustainable design. He is a LEED accredited professional responsible for both design and construction of a variety of types of building. This include the layout and design of the electrical components, project management, development and review of contract documents, client interface, review of shop drawings, and construction services.

NSA OPERATIONS BUILDING #1 ROOF RENOVATIONS, Department of Defense, Fort Meade, MD. Electrical design for 326,000 square foot roof system renovation in this high security facility (\$10 million/\$12-\$13 million for roof). The project involved modifications to, and demolition of electrical systems on, or integral to the roof. The work included cost estimating, substation removal, and the relocation of conduits with high and low voltage conductors as required. New cable tray systems were provided for communications conductors.

MOUNT SAINT MARY'S UNIVERSITY, BORDERS HALL RENOVATIONS, Emmitsburg, MD. Project Manager for M/E/P services for the design-bid-build method to renovate the existing two-story, 15,000 square foot Borders Hall classroom and administration building on the Mount St. Mary's University campus. The renovated facility remained a combination of office and classroom space. The work involved the complete gutting of the existing structure and included adding one elevator.

HARFORD COMMUNITY COLLEGE, JOPPA HALL, Project Manager for a phased expansion/renovation and partial alteration/conversion of academic building. The work includes construction of an addition to replace classroom portables and consolidation of the fine and applied arts programs, and adding additional space for a new degree program in building preservation and restoration. The mechanical room was converted into an academic laboratory space for the HVAC technology shop and plant storage space. All the renovated spaces in Joppa Hall will be fitted with rooftop HVAC package units. This project also involved a campus-wide LEED study and USGBC Standards for a LEED Gold Certification.

MOSALATTI OFFICE BUILDING, Bridgeport, WV. Project Manager, 100,000 square feet in a five-story (high-rise) medical office shell building. Design included the application of a Water Source Heat Pump (WSHP) system which includes a 400-ton cooling tower, three 500MBH gas-fired condensing boilers, and WSHP piping loop. Design also included two 100% O.A. 30-ton WSHP rooftop units to provide proper ventilation to the office space, a 16-ton WSHP rooftop unit to condition the common areas. Several 5-ton horizontal WSHP units are strategically located for temporary heating and cooling of the shell space and can be utilize for future tenants. Design also included sanitary, domestic water, storm water, condensate, and gas piping layout. Mechanical and plumbing provisions were provided for future tenants. Performed all heating, cooling, ventilating, and plumbing calculations, piping and duct layout, equipment sizing, and CAD drafting.

**Richard M. Lindemon,
P.E., LEED A.P.
Mechanical Engineer**

**Hal Allen,
LEED A.P.
Sr. Electrical Designer**

Active Registration:

2002 P.E. Maryland Registered #28407
2004 August LEED Accredited Professional
(LEED A.P.)

Education:

Bachelor of Science in Engineering
(B.S.E.), 1994, Mechanical University of
Maryland Baltimore County (UMBC)

Years Experience:

14

Experience:

Mr. Lindemon is a mechanical engineer for the design of projects which include HVAC, chilled water, heating water, steam/condensate return systems, underground utility distribution, and chiller/boiler plants.

NAVAL SUPPORT ACTIVITY (NSA) - ROOF REPLACEMENT, 6 BUILDINGS (12, 105, 210, 211, 212, 508), Mechanicsburg, PA. Project Manager/Design Engineer, Provided design and specifications (using Specs Intact) for the implementation of general exhaust/ventilation of (6) 120,000 square foot warehouses including the application of thermostatically controlled roof mounted propeller exhaust fans. Also included the coordination and replacement of roof mounted mechanical equipment in support of the replacement of roofing systems associated with (5) military support buildings including warehouse space. Performed all heating, cooling, and ventilating calculations, system layout, equipment sizing, duct design, CAD drafting, and specifications.

NAVAL AIR ENGINEERING STATION (NAES) - ROOF REPLACEMENT, Lakehurst, NJ., Project Manager/Design Engineer, Provided mechanical consulting services pertaining to the interface of existing roof-mounted mechanical equipment in support of roof replacement project.

CENTURY ENGINEERING CORPORATE HEADQUARTERS, Hunt Valley, MD. Mechanical Engineer for a new, four-story GOLD LEED Rating corporate office (58,000 square foot with basement). Building HVAC systems have been designed and zoned to provide an efficient, quiet, and comfortable means of heating and cooling the building. The glycol cooled split system air conditioning unit serving the computer LAN Room was designed to reject heat to an accessory energy collector associated with the domestic water heaters. The evaporative condensers associated with the rooftop air conditioning units have been designed with a chemical-free water treatment technology.

Years Experience: 13

Education:

CADD Courses - Carroll Community College

Experience:

Mr. Allen is a senior electrical designer, and supervisor for projects, which include electrical power distribution systems (high, medium and low voltage), interior and exterior building lighting, highway and streetscape lighting and control wiring for fire protection systems & security systems. His experience includes NEC, distribution and branch circuit calculations, lighting illumination calculations, cost estimates, economic analyses, building design, and studies for existing electrical systems specification writing and energy consumption.

NATIONAL SECURITY ADMINISTRATION (NSA), OPS1 BUILDING ROOF RENOVATIONS, Department of Defense, Fort Meade, MD. Project Manager for 326,000 s.f. roof system renovation in this high security facility (\$10 million/12-13 million for roof). The project involved removal of existing medium voltage substations and reconfiguration of existing medium voltage distribution wiring, reconfiguration of exterior communication wireways and reconfiguration of existing mechanical systems on, or integral to the roof. The work included: Extensive field investigation of all systems, cost estimating, equipment relocating, design new units as needed, development of Microstation cadd drawings and written specifications to DOD standards.

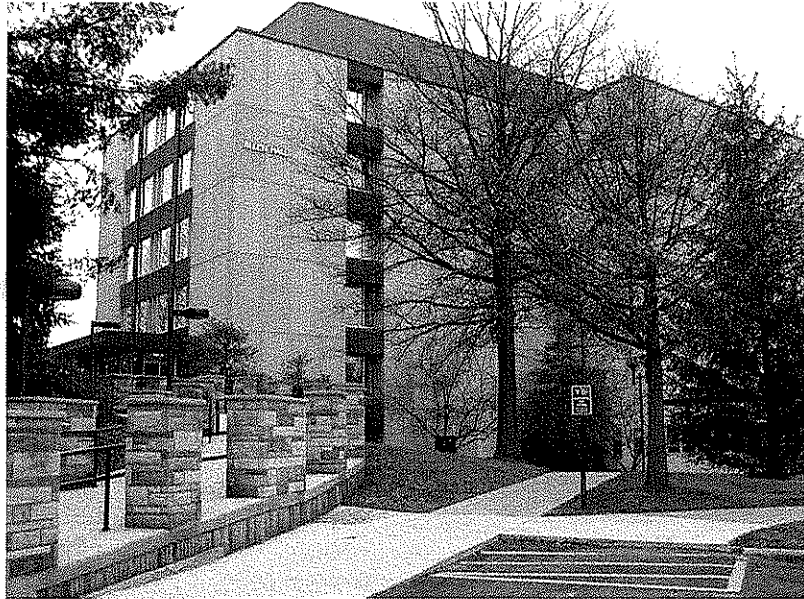
NAVAL SUPPORT ACTIVITY (NSA) - ROOF REPLACEMENT, 6 BUILDINGS (12, 105, 210, 211, 212, 508), Mechanicsburg, PA. Electrical Designer, Provided design and specifications (using Specs Intact) for the implementation of general exhaust/ventilation of (6) 120,000 square foot warehouses including the application of thermostatically controlled roof mounted propeller exhaust fans. Also included the coordination and replacement of roof mounted mechanical equipment in support of the replacement of roofing systems associated with (5) military support buildings including warehouse space. Performed all heating, cooling, and ventilating calculations, system layout, equipment sizing, duct design, CAD drafting, and specifications.

ADDITION BETWEEN WEST & CENTER TIERS FACILITY 714, Electrical Engineer. The project consists of constructing an addition between the west and center tiers and replacing existing doors with fire rated safety doors. This addition will be constructed inside of Facility 719 with its own roof it is being requested by base Fire Department for fire evacuation safety.



Allen Hall - Roof Evaluation

West Virginia University, Morgantown, WV



Project Information

- Project Date: 2007
- West Virginia University
Morgantown, WV
Dan Batson, Assistant
Director
304-293-4851

The Problem

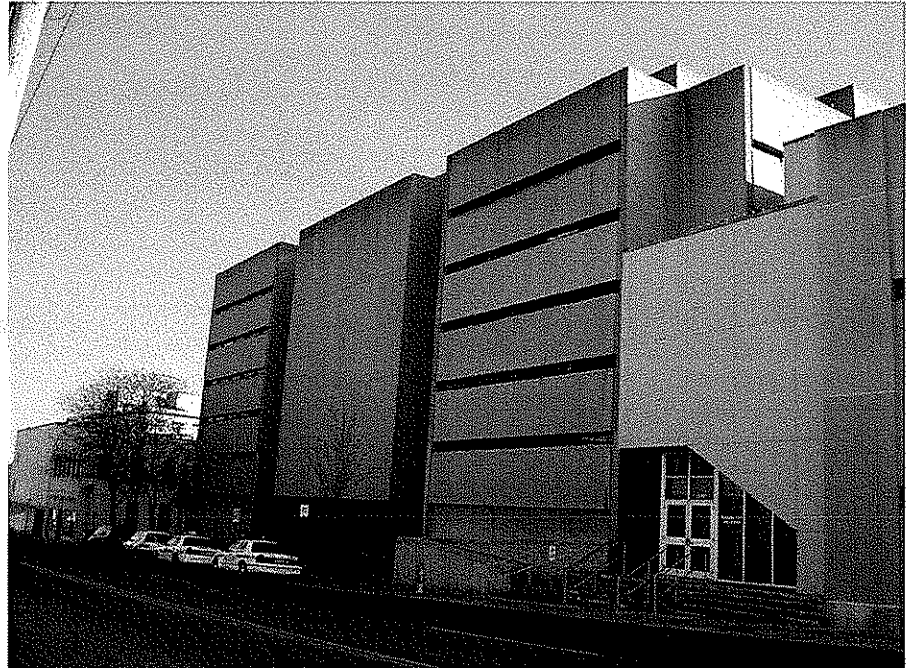
- This facility was suffering from moisture intrusion and condensation issues related to a recently installed 2-ply modified bitumen roofing system. Pursuant to our open end term contract with West Virginia University to provide A/E services related to the roof and building envelope, GALE was asked to perform an investigation and determine the source of the problem.

Gale's Solution

- Reviewed existing documentation and conducted a site investigation, to include test cuts, sampling, and analysis to determine subsurface conditions and vapor analysis on roof assemblies.
- Prepared a detailed report outlining our findings (including as-built conditions) and recommendations. It was determined that moisture intrusion that occurred during installation resulted in condensation on the underside of the roof membrane through a vapor diffusion process.
- Based on our findings and recommendations, the entire roof was removed and replaced by the contractor under the existing warranty.

Roanoke City Jail - Roof Replacement Design

City of Roanoke, VA



Project Information

- Project Date: 2006
- City of Roanoke
Roanoke, VA
Gareth McAllister
540-853-2593



The Problem

- Failed roof system, chronic leaks.

Gale's Solution

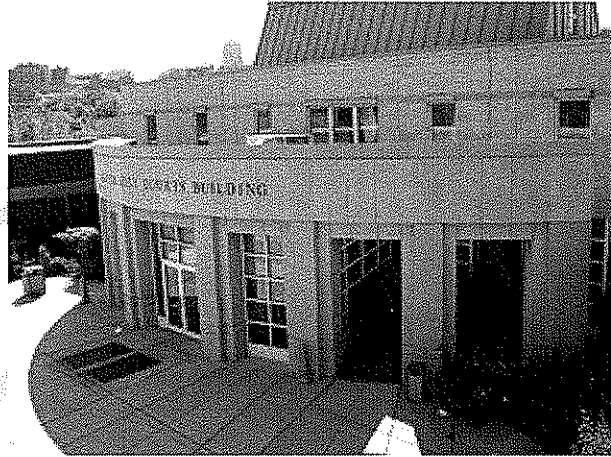
- Conducted site investigation, to include building measure-up and review of existing documentation.
- Prepared Design Development Report outlining findings and recommendations.
- Prepared construction documents for the removal and replacement of the existing roof system.
- Provided Bid Period and Contract Administration Services and onsite construction monitoring.

Project Information

- Project Date: 2005-2008
- City of Richmond
Jay Thomas
804-646-5750

Building Envelope/HVAC Evaluation/Design

Oliver Hill Courts Building & Juvenile Detention Center, Richmond, VA

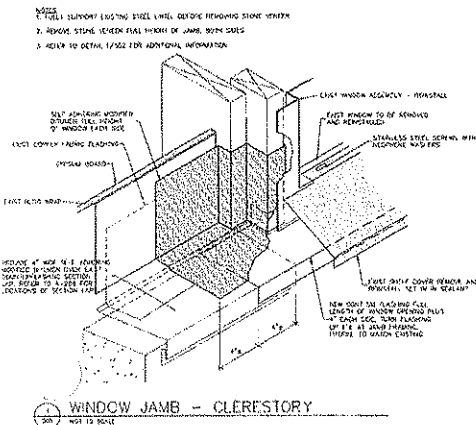
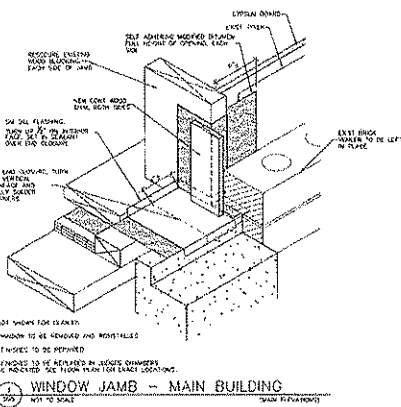


The Problem

This facility, completed in 1996, had experienced window/wall related leaks since shortly after completion of construction. There were also roof related leaks, ventilation issues, site drainage issues, and problems with indoor air quality (including the presence of mold and fungus). Gale was requested to perform an investigation and evaluation to determine causes of problematic conditions and corrective measures.

Gale Services

- Performed investigation/evaluation to determine source of ongoing moisture intrusion through building envelope (roof, walls, windows), HVAC system irregularities, and interior air quality issues.
- Investigation included review of available documents, visual observation, measure-up, leak testing, destructive testing of walls and windows, indoor air quality assessment, and engineering analysis.
- Coordinated with subconsultants for civil engineering, mechanical/electrical/plumbing engineering, and environmental engineering services required for the project.
- Provided in-depth report (including drawings, photographic documentation, and test results) detailing findings and recommendations for repairs.
- Prepared Construction Documents to implement recommended repairs, to include removal/reinstallation of all single windows, removal/reinstallation of masonry veneer around clerestory windows, replacement of roof level throughwall flashings, augmentation of existing ventilation ductwork, remediation of mold, regrading of site, and installation of new storm water area drain.

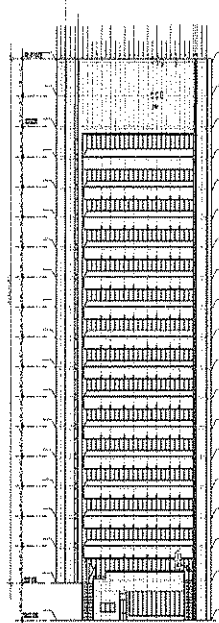


Roof, Wall, Window Weatherization, Evaluations, and Renovations

Montgomery County Government, MD

Project Information

- Project Date: 2001-Ongoing
- Montgomery County Government
Rockville, MD
Jamie MacKinnon
301-279-1984



Gale Services

- Performed specialized consulting (roof, wall, window) services for the past 10 years.
- Facilities (200 total) included executive office buildings, **courthouses**, **detention centers**, **police stations**, fire stations, libraries, recreation centers, natatoriums, and senior centers, among others.
- Provided onsite inspections, studies, reports, cost estimates, and repair and replacement recommendations and prioritizations.
- Provided design services consisting of preparation of design development submissions and final construction documents (plans and specifications) for roof replacements, wall repairs, and window replacements.
- Provided construction period services, to include submittal and shop drawings review, pre-construction meeting, full-time construction inspection, progress meetings, review of progress payments and change orders, punchlist inspection, and project closeout.

Market Square - Roof Replacement Design

City of Roanoke, VA

Project Information

- Project Date: 2005
- City of Roanoke
Roanoke, VA
Gareth McAllister
540-853-2593



The Problem

- This historically significant market building was suffering from leakage due to its deteriorated metal roof system.

Gale's Solution

- Conducted site investigation, to include building measure-up and review of existing documentation.
- Prepared Design Development Report outlining findings and recommendations.
- Prepared construction documents for the removal and replacement of the existing metal roof system. GALE designed the new roof to match the appearance of the old roof, while utilizing current materials and technology. GALE attended presentation meeting before the Roanoke Architectural Review Board, which approved the design.

Roof, Wall, Window Evaluation and Design Projects

Department of the Navy, Mid-Atlantic Division

Project Information

- Project Date: 2002-present
- Dept. of the Navy
Carol Hall, Contract Specialist
717-605-6238
- Anthony Teti, Contract Specialist, has stated, *"Gale Associates has performed many engineering and design projects (task orders) for this command in the last 10 years. They are an outstanding firm."*



Thermogram view of roof and rising wall

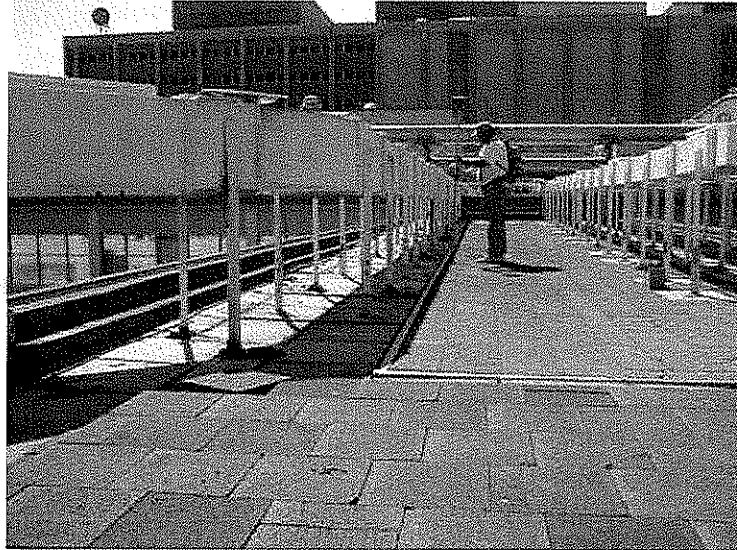
Note: Century Engineering, Inc. has been the mechanical/electrical engineering consultant on multiple roof replacement/ HVAC projects performed for the Navy.

Gale Services

- Based on our qualifications, GALE was awarded (February 2002) an indefinite quantity contract for specialized roofing inspections, moisture intrusion investigations, preparation of plans and specifications, and construction support for roofing construction and repairs. From February 2002 to October 2004, we performed building envelope evaluations, design, and construction period services on 50 facilities for an approximate construction value of \$31,000,000.
- Based upon GALE's outstanding service, we were selected for a new 5 year term contract with the Department of the Navy in 2004. From December 2004 to December 2007, we provided building envelope consulting services on 40 plus facilities for an approximate construction value of \$25,000,000.
- Services include, but are not limited to, comprehensive visual roof condition surveys; moisture intrusion investigation of roof and wall systems; roof defect identification and failure investigations; comprehensive inspections and moisture survey reports and documentation; development of roof management plans; preparation of documentation required for funding approval; design services for roof repairs or replacement, and related work.

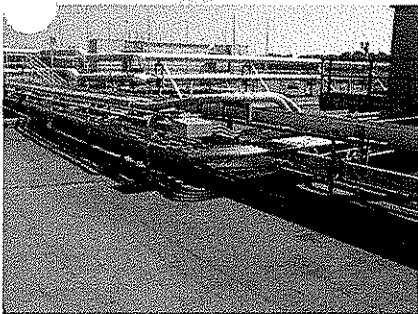
Roof Evaluation and Replacement

National Security Agency, Fort Meade, MD



Project Information

- Project Date: 2001-2008
- Contact: Jim Hargett,
301-688-3910



Note: Century Engineering, Inc. was the mechanical/electrical engineering consultant for this project. Gale worked closely with Century throughout the project and coordinated all design and consulting efforts.

The Problem

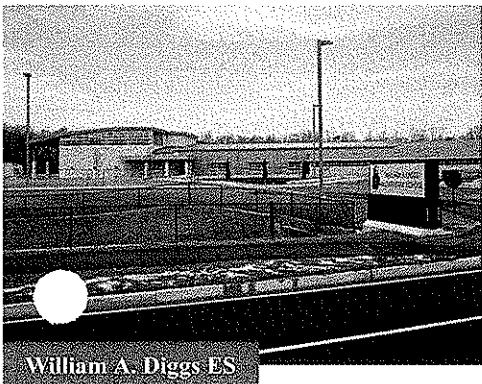
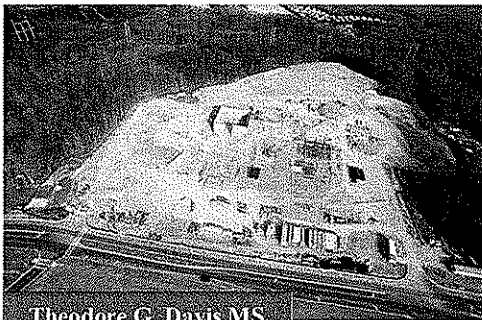
- Failed roof system, which required replacement, was complicated by extensive rooftop mechanical, electrical, and communications equipment, and high-security access.

Gale's Solution

- Provided initial evaluation of roof system equipment and appurtenances, systematically addressing and prioritizing each roof component for repair/replacement.
- Specifically addressed over 2000 rooftop penetrations. Surveyed roof using GPS equipment accurate within 1 centimeter horizontally and vertically.
- Prepared construction documents to remove and replace roofing system; remove/repair mechanical, electrical, communications, and support system; install new interior drain system, install new lightening protection system, and install new traffic system to protect the roof.
- Prepared design documents for two new stair towers.
- Provided contract administration services during construction, to include submittal review, inspections, progress meetings.

Project Information

- Project Date: 2000-
Ongoing
- Charles County Public
Schools
5980 Radio Station Road
LaPlata, MD
Gerard Barrett, Supervisor
of Planning & Construction
301-934-7290
Steve Hagis, Project
Manager 301-399-2741
- CCPS has stated "We,
unhesitatingly, recommend
Gale Associates to any
owner, agency, or jurisdiction
for any aspect of consultant
work in the building envelope
field. We continue to have
nothing but the highest regard
for their whole organization
and personnel."



Roof, Wall, Window Evaluation and Design

Charles County Public Schools, MD



Gale Services

- Provided A/E services for building envelope (roof, wall, window, waterproofing) evaluation and design projects on existing and new schools and facilities (35+ facilities).
- Performed initial investigations and evaluations, including failure studies, in-place leak testing, and provided reports, recommended repair approaches, and construction cost estimates.
- Performed design services consisting of preparation of design development submissions and final construction documents (plans and specifications).
- Building exterior design projects included metal and masonry walls, and new window systems. Roof design projects included flat and sloped roof systems.
- Provided construction period services, to include submittal review, pre-construction meeting, full-time construction inspection, punchlist inspection, and project closeout.

New School Construction

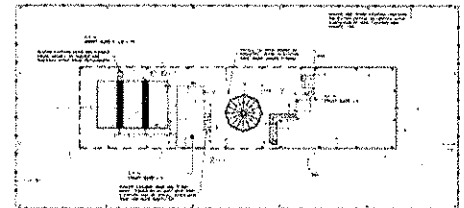
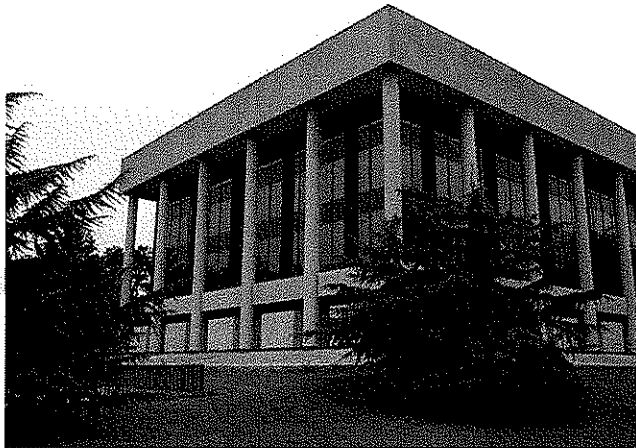
GALE worked with SHW Group on the design of these new schools in Charles County. GALE provided design services for new roof systems and assisted in design of exterior wall components. GALE has provided construction period services for CCPS during the construction phase for these projects, including onsite monitoring.

Roof Design and Engineering Services

Dept. of General Services, MD

Project Information

- Project Date: 2007 to present
- Dorothy Dietrich,
410-767-4091
- DGS performance evaluations have rated GALE "above average" and have recommended GALE for future roof evaluation and design projects."



Gale Services

- In 2000, GALE was awarded an indefinite quantity contract by Maryland DGS and provided roof design and engineering services on 11 facilities ranging in size and complexity.
- In 2007, Gale was once again awarded an indefinite quantity contract to provide roof design and engineering services.
- Typical services consist of investigation, evaluation, preparation of Construction Documents, assistance during the bid period, and construction period services, to include submittal review, pre-construction meeting, periodic construction inspection, review of progress payments and change orders, attendance at progress meetings, punchlist inspection, and project closeout.

Building Envelope Evaluation, Design and Construction Period Services

United Medical Center (Formerly The Greater Southeast Memorial Hospital),
Washington, D.C.

Project Information

- Project Date: 2008
- HITT Contracting, Inc.
Fairfax, VA
Brad Boyll
703-208-5658



The Project

- The United Medical Center is an 8-story concrete structure with the original construction dating to 1964. Numerous additions have been constructed subsequent to the original building that have added up to 20 roof areas. The original building envelope consists of brick masonry, curtain wall systems, and various roof systems.

Gale's Services

- Performed a detailed evaluation of the building envelope, to include the roof systems, curtain wall systems, and brick masonry.
- Provided Construction Documents (drawings and specifications) for the roof replacement.
- Assisted client during the bid period with solicitation of contractors and review of bids.
- Currently providing Construction Period Services during the replacement of the 8-story curtain wall systems, to include site visits and reports, shop drawing review, and consultation.

