

State of West Virginia Centralized Expression of Interest 02 — Architect/Engr

 Proc Folder: 92501

 Doc Description: Addendum No.02; EOI Capitol Dome Moisture Intrusion.

 Proc Type: Central Purchase Order

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2015-05-16
 2015-05-28 (13:30:00)
 CEOI 0211 GSD1500000001
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BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

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25305

Vendor Name, Address and Telephone Number:

Alpha Associates, Incorporated 209 Prairie Avenue Morgantown, WV 26501 304-296-8216

> 05/27/15 09:44:24 WV Purchasina Division

FOR INFORMATION	CONTACT	THE BU	YER
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Guy Nisbet (304) 558-2596 guy.l.nisbet@wv.gov

Signature Mul () lunc

FEIN # 550516286

DATE 05-26-15

All offers subject to all terms and conditions contained in this solicitation

Page: 1

FORM ID: WV-PRC-CEOI-001

DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION

1900 KANAWHA BLVD E, BLDG 1, RM MB-68

CHARLESTON

WV25305

DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION BLDG 1

1900 KANAWHA BLVD E

CHARLESTON

WV 25305

US

US

Line	Comm Ln Desc	Qty	Unit Issue	
1	EOI West Virginia Capitol Dome Moisture Intrusion			

Comm Code	Manufacturer	Specification	Model #	
81100000				

Extended Description :

EOI West Virginia Capitol Dome Moisture Intrusion

	Document Phase	Document Description	Page 3
GSD1500000001	Final	Addendum No.02; EOI Capitol Do me	of 3
		Moisture Intrusion.	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: GSD1 500000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

	fumbers Received: ox next to each adde	ndum received)		
X	Addendum No. 1		Addendum No. 6	
X	Addendum No. 2		Addendum No. 7	
	Addendum No. 3		Addendum No. 8	
	Addendum No. 4		Addendum No. 9	
	Addendum No. 5		Addendum No. 10	
I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.				
Alpha Associates, Incorporated Company				
Authorized Signature Authorized Signature				
	26-15			
Date				
NOTE: This addendum acknowledgement should be submitted with the bid to expedite				

Revised 04/13/2015

document processing.

CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Alpha Associates, Incorporated

(Company)

(Authorized Signature) (Représentative Name, Title)

304-296-8216 - Phone and Fax / 5.26.45 (Phone Number) (Fax Number) (Date)

RFQ No. GSD1500000001

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE: Vendor's Name: Alpha Associates, Incorporated Authorized Signature: President and COO State of West Virginia County of Monongalia to-wit: Taken, subscribed, and sworn to before me titied (lay of 20 C) My Commission expires AFFIX SEAL HERE NOTARY PUBLIC Diann C. Clark Alpha Associates, Inc. 20 Pariet Avenue Morgantown, WY 26501 My Commission Expires Aug. 4, 2019 My Commission Expires Aug. 4, 2019 My Commission Expires Aug. 4, 2019 My Commission Expires Aug. 4, 2019



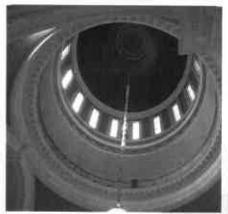


General Services Division

West Virginia Capitol
Dome Moisture Intrusion

May 28, 2015

EXPRESSION OF INTEREST











May 28, 2015

Department of Administration, Purchasing Division 2019 Washington Street East Charleston, WV 25305-0130

Attn: Guy Nisbet, Buyer Supervisor

RE: Solicitation GSD1500000001 Capitol Dome Moisture Intrusion

Dear Mr. Nisbet,

Alpha Associates, Incorporated is pleased to submit this Expression of interest to provide Architectural and Engineering Services to study and resolve moisture intrusion issues in the dome and central rotunda area of the West Virginia State Capitol Building. Alpha's recent experience with other similar projects, as well as our knowledge of working with the General Services Division makes us the perfect partner for this project.

For more than 46 years, Alpha has performed numerous building assessments throughout the State of West Virginia. From those assessments, we are able to provide clients with detailed reports outlining our findings, options for repairs, and cost estimates to complete the repairs. Discovering water related issues is often difficult and requires an evaluation by an experienced team. Alpha will provide the General Services Division with that team. We have included within our team professionals that have worked in the Capitol Dome previously as well as experts in water infiltration examination.

The Alpha members who are dedicated to your project are talented architects engineers, historic preservationists, and moisture specialists with recent, relevant experience and technical expertise. You are familiar with Ms. Rebecca Key from working with her on the recent Building 25 project in Parkersburg, West Virginia. She will be the Project Manager for the West Virginia Capitol Dome Moisture Intrusion Assessment and will work closely with you and the rest of the team throughout the project to provide you with recommendations to repair and remediate the problems.



As with Building 25, we have included Michael Minigh with Moisture Tech on our team to provide moisture testing to determine the cause of moisture migration into the interior of the building. Mr. Minigh is an expert in this field and will provide a detailed view of this often complicated problem. We have also included Elizabeth Moss, a historic preservation specialist and Carol Stevens, a structural engineer with CAS Structural Engineering on our team. Ms. Stevens and Ms. Moss have both have worked extensively on the Capitol Complex and will be valuable resources to our team.

In addition to Building 25, Alpha has provided moisture assessments and testing for private clients, including some in the Charleston area. For example, Alpha recently provided a Building Evaluation for Holiday Inn and Suites in South Charleston. Alpha again teamed with Moisture Tech to evaluate the cause of water infiltration in the building, as well as the cause of A/C unit failure.

The Alpha Team has the ability to handle all aspects of the project. We are looking forward to working with the General Services Division on another project and to helping you resolve moisture intrusion issues in the West Virginia State Capitol Building dome and Central Rotunda area.

If you have any questions or require additional information please contact me at 304-296-8216 extension 102. Thank you for your time and consideration. We look forward to sharing more of our qualifications with the General Services Division throughout this process.

Sincerely,

ALPHA ASSOCIATES, INCORPORATED

Richard A. Colebank, PE, PS

President and COO

rick.colebank@thinkALPHAfirst.com





APPROACH AND METHODOLOGY



The Capitol Dome is an important element in the architectural skyline of Charleston, West Virginia. It is also a historic element and one that stirs the heart in many West Virginia residents, not just in Charleston, but statewide. It also symbolically references the National Capitol Dome and thereby the "Union" of States. Given that West Virginia was admitted to the Union during the Civil War, it is an appropriate reference.

Our understanding of the construction of the dome, and its two part interior and outer dome structure, is derived from a brief tour of the lower portion of the dome and review of existing sketches made available from the General Services Division. We have included team members that were instrumental in the past renovations of the dome structure.

Currently the roofing is being replaced in and around the dome area. There is evidence of excessive moisture at various locations of the limestone (exterior) and the plaster/paint condition of the interior.

The single biggest challenge to the investigative portion of the project is access.

One possible solution to the access is to incorporate the use of Drones with photographic capabilities will enable a safe investigative method for an "up close and personal" view of the exterior of the Capitol Dome. The use of a carefully monitored drone would be authorized in advance with appropriate authorities providing angles and accessibility to areas that could not be obtained through normal staging. The photographic images could then be analyzed for possible sources of infiltration of liquid rain.

The use of the term liquid rain is mentioned above as a reference to moisture created from the natural elements as opposed to the presence of moisture created through condensation. Condensation is also an item to investigate, as there may be more than one type of moisture infiltration happening to the Capitol Dome.

The Approach and Methodology for the project would be as follows:

- 1. Initial discussions with the General Services Division representatives.
 - a. Define scope of investigation.
 - b. Complete contract negotiations.
- 2. Develop Timetable
 - a. Determine desired completion date.
 - b. Determine Design Team/Owner meeting schedules
 - c. Determine significant milestone dates for periodic review and submissions





- i. Investigative, Report, Optional Contract Documents, Additional Support services, etc.
- 3. Develop plan for approval of drone investigation and/or scaffolding if required.

INVESTIGATIVE PHASE

- 1. Review of all existing drawings, reports, and documentation.
- 2. Physical investigation of dome through all accessible areas.
 - a. Observation
 - i. Locations and source of water infiltration
 - ii. Material sampling non-invasive
 - iii. Photo images
 - b. Recording of findings
 - Locations of damage, perhaps not visible in other more accessible areas of the dome
 - ii. Tagging of photos with locations, etc.
 - c. Water testing as required from physical inspection.
 - i. Hose test
 - d. Humidity/atmospheric non-invasive testing of interstitial space between domes.
 - e. Review of information
 - i. Comparison of observations with drawing details
 - ii. Testing of materials obtained during physical observation, if required.
 - iii. Path of water infiltration developed.
- 3. Alternative Exploration Development of Drone Path
- 4. Drone Flight Exterior
 - a. Capturing of images at suspected areas of liquid rain infiltration
 - b. Review of information provided through drone flight.
- 5. Drone Flight Interior
 - a. Capturing of images at suspected areas of liquid rain infiltration
 - b. Review of information provided through drone flight.
- 6. Erect scaffolding for inspection of scaffolding where needed.
- 7. Repair and/or replacement of material damaged, if any during investigative portion.

STUDY PHASE

- 1. Review of all information obtained, physically, observed, discovered, etc.
- 2. Development of suspected path for water infiltration and material failures, through intensive analysis of all information available and obtained during investigative Phase.
- 3. Development of causation theories
- 4. Development of repair method/s recommendations
 - a. Methods to handle drainage from inner dome area.
 - b. Methods to eliminate source if definitively determined.
- 5. Development of repair recommendations





- 6. Development of long term maintenance recommendations.
- 7. Estimate of probable cost.

CONTRACT DOCUMENT PHASE (IF REQUIRED)

- 1. Determine best approach method with owner's representative from amongst the recommendations listed in the study phase, taking anticipated costs into account.
- 2. Complete the design and construction documents.
- 3. Prepare documents for bidding.
- 4. Provide any and all modifications to documents based upon owner's review.

Bid Phase

- 1. Provide bid phase services including conducting a mandatory pre-bid meeting.
- 2. Prepare minutes to the pre-bid meeting.
- 3. Answer questions through the bid process in accordance with the State Purchasing requirements.

Construction Phase Services

- 1. Provide construction phase services throughout the life of the contract.
- 2. Conduct periodic construction meetings.
- 3. Prepare minutes to construction meeting.
- 4. Review Shop Drawings and final completion inspections.

ADDITIONAL SUPPORT SERVICES

Provide support services in the form of meeting attendance and/or historic documentation Too other interested entities, i.e. SHPO; Capitol Building Commission, State Fire Marshal, etc.





FIRM CONTACT

Mr. Richard Colebank, PE, PS is President and COO of Alpha Associates, Incorporated and will be your point of contact throughout the project. Mr. Colebank has full authority to execute a binding contract on behalf of Alpha Associates.

Richard Colebank, PE, PS President and COO 209 Prairie Avenue Morgantown, WV 26501 304-296-8216 extension 102 rick.colebank@thinkalphafirst.com

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FIRM PROFILE





Alpha Associates, Incorporated was established in 1969 and since that time has completed hundreds of projects throughout Morgantown and the state of West Virginia. Alpha's Corporate Office is located in Morgantown with our Eastern Regional Office located in Martinsburg.

Firm Profile

FIRM NAME
Alpha Associates, Incorporated

OFFICE LOCATIONS
209 Prairie Avenue

Morgantown, West Virginia 26501

535 West King Street Martinsburg, West Virginia 25401

2506 Kanawha Boulevard East Charleston, West Virginia 25311

INCORPORATED

1969; Morgantown, WV

FIRM PRINCIPALS

Richard A. Colebank, PE, PS; President and COO Richard W. Klein, PE, PS; Chairman and CEO Charles B. Luttrell, PE; Principal Charles B. Branch, PE; Principal

NUMBER OF EMPLOYEES

26 Employees

SERVICES

Architectural Design
Civil Engineering
Structural Engineering
Surveying
Interior Design
Landscape Architecture
Construction Administration





Firm Profile

CAS Structural Engineering, Inc. — CAS Structural Engineering, Inc. is a **West Virginia Certified Disadvantaged Business Enterprise (DBE)** structural engineering firm located in the Charleston, West Virginia area.

Providing structural engineering design and/or analysis on a variety of projects throughout the state of West Virginia, CAS Structural Engineering has experience in excess of 25 years on the following types of building and parking structures:

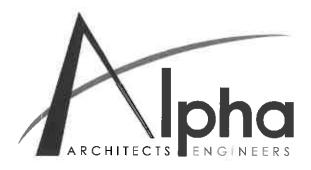
- Governmental Facilities (including Institutional and Educational Facilities)
- Industrial Facilities
- Commercial Facilities

Projects range from new design and construction, additions, renovation, adaptive reuse, repairs and historic preservation (including use of The Secretary of the Interior's Standards for Rehabilitation) to evaluation studies/reports and analysis.

CAS Structural Engineering utilizes AutoCAD/REVIT for drawing production and Tedds, Enercalc and RISA 2D and 3D engineering software programs for design and analysis. Structural systems designed and analyzed have included reinforced concrete, masonry, precast concrete, structural steel, light gauge steel and timber.

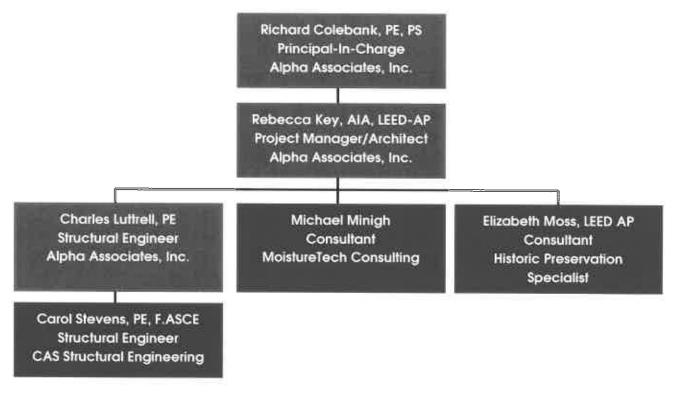
Carol A. Stevens, PE is the firm President and will be the individual responsible for, as well as reviewing, the structural engineering design work on every project. Carol has over 25 years of experience in the building structures field, working both here in West Virginia and in the York, Pennsylvania vicinity. Carol is also certified by the Structural Engineering Certification Board for experience in the field of structural engineering.

CAS Structural Engineering, Inc. maintains a professional liability insurance policy.



PROJECT ORGANIZATION

All work to be performed for the West Virginia Capitol Dome Moisture Intrusion project will be performed out of Alpha's Charleston office. To further assist the General Services Division with the project, Alpha has included teaming partners that will add to the expertise of our team and help us to better service the project. Together, Alpha's design team can complete all aspects of this project.



In addition to your dedicated Project Team, Alpha's staff of twenty-six (26) includes Engineers, Architects, Technicians, Surveyors and Support Staff, who are available to assist you with any potential project need.







ALPHA RESUMES



SUMMARY

Richard A. Colebank, PE, PS President and COO

Mr. Colebank is President and Chief Operating Officer of Alpha. He has been with Alpha Associates, Incorporated since 1985. He began his career with Alpha as a staff engineer and progressed through the ranks from Project Manager to his current position. Mr. Colebank has worked with diverse clients such as WVU, City of Morgantown, WVDOH, WVU Foundation, and the Morgantown Municipal Airport, as well as numerous other public and private clients. Since 1988, Mr. Colebank has been the Principal-In-Charge of many of the Civil Engineering projects developed at Alpha. In his current capacity, Mr. Colebank provides financial and administrative guidance for the day to day operations of the company while continuing to manage

Civil Engineering Projects.



PROFILE

Broad-based responsibilities in the following areas:

- Project Management
- Business Operations and Financial Management
- Quality Assurance/Quality Control
- Civil Engineering Project Management and Design
- New Business Development
- Expert Testimony and Investigation

PROFESSIONAL HIGHLIGHTS

Project Manager:

- WVU Research Park; Morgantown, WV
- Federal Bureau of Prisons Hazelton Medium Security Prison
- WV Medal of Honor Recipients Plaza; Hazelton, WV
- North Fork Hughes River Recreation Facilities; Ritchie County, WV
- WVDOH I-77 Welcome Center; Williamstown, WV
- Ices Ferry Bridge; Morgantown, WV
- Monongalia General Hospital Expansion; Morgantown, WV
- Monongalia General Hospital Access Road; Morgantown, WV
- Morgantown Municipal Airport Access Road; Morgantown, WV

Indefinite Delivery/Indefinite Quantity Contracts:

- Morgantown Municipal Airport Open End Contract
- West Virginia Division of Highways Open End Contract
- National Energy Technology Laboratories Open End Contract
- West Virginia University Open End Contract
- United States Postal Service Open End Contract











Richard A. Colebank, PE, PS President and COO

EMPLOYMENT HISTORY

1985 - Current Alpha Associates, Incorporated 1983-1985 Charles Townes and Associates, P.C. 1983 **US Army Corps of Engineers**

EDUCATION

West Virginia University Masters of Business Administration; 1999 Bachelor - Civil Engineering; 1982

QUALIFICATIONS

• License: Professional Engineer: West Virginia, Maryland, Pennsylvania, Virginia

Professional Surveyor: West Virginia

Certified Private Pilot

AFFILIATIONS

- Former NSPE/PEPP Governor of WV
- ACEC/WV; Former President and National Director
- University High School Foundation; Charter Member; President
- Morgantown Area Chamber of Commerce; Past Chairman
- Monongalia County MPO Technical Advisory Committee; Member
- Morgantown Area Economic Partnership; Member
- American Red Cross, River Valley Chapter B.O.D.
- WVU College of Civil and Environmental Engineering Visiting Committee



Contact

Richard A. Colebank 304.296.8216 800.640.8216 rick.colebank@thinkalphafirst.com



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

to whom these presents shall come. Greeting

Throw De That Che State Mard of Unidention for Professional Engineers, of the State of West Virginia, reposing special confidence in the Intelligence Integrity and Discretion of

Richard A. Colebank

Does, In Punsuance of Aughorany Vessed In by law; hereby certify that he having submitted satisfactory evidence of his ability and experience; is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number

(To Thold) and use such title in the practice of his profession, subject to the conditions presorbed by law



Citren under the hand and the Seal of the Board at the Capital in the City of Charleston this 23rd day of Fel in the year of our Lord One Thousand Nine Hundred and Eighty-Eight and of the State the One Hundred Twenty - Fourth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

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ALPHA RESUMES



Rebecca Key, AIA, LEED-AP

Architect, Associate

SUMMARY

Ms. Key has worked in the architectural field for over 35 years. She is Project Architect/Project Manager for numerous architectural designs at Alpha Associates, Incorporated. Ms. Key is involved from the programmatic stages and schematic designs all the way through construction documents to construction administration.



PROFILE

Broad-based responsibilities in the following areas:

- Architectural Design
- Interior Design
- Medical Design
- Interior Space Planning
- Historic Renovation

PROFESSIONAL HIGHLIGHTS

Architectural Design:

- Mon County Family Court Renovation; Morgantown, WV
- West Virginia Regional Technology Park Renovation to Building 770;
 South Charleston, WV
- Mon County Sheriff's Building; Morgantown, WV
- WVU South Agricultural Sciences Building; Morgantown, WV
- Washington High School; Charles Town, WV
- Prichard Hall Renovation; Fairmont State University; Fairmont, WV
- WVU CRRB Renovation, 5th and 7th Floors; Morgantown, WV
- WVU Boreman Hall, Boreman Bistro; Morgantown, WV
- WVU Hatfields Restaurant; Morgantown, WV
- Hart Field Maintenance Facility; Morgantown, WV
- Norwood Fire Station; Morgantown, WV
- FMW Composites; Bridgeport, WV
- Hart Field Terminal Renovation; Morgantown, WV
- White Hall Municipal Building; White Hall, WV
- WV State Office Building; Clarksburg, WV
- Ruby McQuain Amphitheater Roof; Morgantown, WV
- Augusta Apartment Building; Morgantown, WV
- Cass Scenic Railroad Clubhouse Renovation; Cass, WV
- Berkeley Springs Bath House Renovation; Berkeley Springs, WV













2000 – Current Alpha Associates, Incorporated Alexander Key and Associates

1978-1983 Webster Clothes; Director of Store Planning

EDUCATION

University of Maryland

Bachelor of Architecture; 1977 Maryland Institute College of Art

Coursework in Furniture Design; 1986-1987

QUALIFICATIONS

- License: Registered Architect: West Virginia, Maryland, Washington DC, New York, Virginia, Pennsylvania
- NCIDQ Certified
- Leadership In Energy and Environmental Design Accredited Professional

AFFILIATIONS

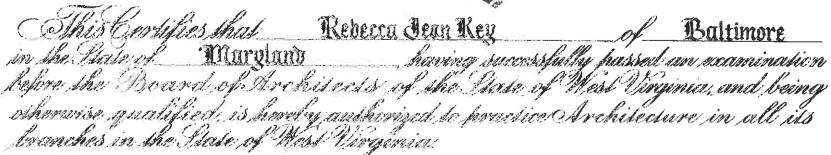
- American Institute of Architects
- West Virginia Society of Architects
- Fairmont, WV ICC Board of Appeal; Board Member
- U.S. Green Building Council
- AlA Liveable Communities
- Marion County Chamber of Commerce
- Leadership Kanawha Valley Class of 2014



Contact Rebecca Key 304.296.8216 800.640.8216 rebecca.key@thinkalphafirst.com



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ALPHA RESUMES



SUMMARY

Charles B. Luttrell, PE | Principal, Structural Engineer

Mr. Luttrell has worked with Alpha Associates, Inc. since 1996. He is the chief structural engineer on all projects at Alpha. Before coming to Alpha, Mr. Luttrell's graduate work resulted in several contributions to the cold-formed steel deck industry. His new method of analysis for non-uniform loads on composite concrete and cold formed steel decks has been made a permanent part of the Steel Deck Institute's design manual. Mr. Luttrell also worked on projects that involved pre-stressed timber bridge research with the WVU Constructed Facilities Center. Since coming to Alpha, Mr. Luttrell has had significant involvement in the effort to begin utilizing modern composite materials in practical bridge applications.



PROFILE

Broad-based responsibilities in the following areas:

- Bridge Structural Design and Analysis
- Innovative Bridge Materials Applications
- Building Structural Design and Analysis
- Historical Restoration and Evaluations

PROFESSIONAL HIGHLIGHTS

Structural Engineer:

- Alumni Center Structural Framing and Foundation; WVU
- Engineering Science Building, East Wing Addition, WVU
- Hazel Ruby McQuain Amphitheater Roof; Morgantown, WV
- West Buckeye Bridge; Core, WV
- Washington High School; Charles Town, WV
- WVU Coliseum Structural Inspection; Morgantown, WV
- WVU Coliseum Scoreboard Hoist Project; Morgantown, WV
- Alderson Broaddus College, Rex Pyles Arena Deck; Philippi, WV
- Mountaineer Middle School Renovation; Morgantown, WV
- Salem International Building Inspections; Salem, WV
- Monongalia County Sheriff's Building; Morgantown, WV
- South High Street Bridge, Morgantown, WV
- Ices Ferry Bridge, Morgantown, WV









EMPLOYMENT HISTORY

1996 - Current Alpha Associates, Incorporated

1995-1996 Larry D. Luttrell, PE, Ph D 1991-1994 West Virginia University

1990-1991 WVU Constructed Facilities Center

EDUCATION

West Virginia University

Masters - Structural Engineering; 1995 Bachelor - Civil Engineering; 1993

QUALIFICATIONS

License: Professional Engineer: West Virginia, Pennsylvania

AFFILIATIONS

- WV Society of Professional Engineers
- National Society of Professional Engineers
- Chi Epsilon; Member
- American Concrete Institute; Member

Research Experience

- Cold Formed Steel Deck Research
 - ✓ Fastener Failures
 - ✓ Edge conditions/failures
 - ✓ Buttoned overlap sheer failures
- Composite Cold Formed Steel and Concrete Deck Research
 - ✓ Line load behavior/failures
 - ✓ Concentrated load behavior/failures
 - ✓ Web crippling
 - Punch failures



Contact Charles B. Luttrell 304.296.8216 800.640.8216 charlie.luttrell@thinkalphafirst.com



STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

to whom these presents shall come Greeting

The Post of Post of Projected on the Professional Engineers.

of the State of West Virginia, reposing special confidence in the Intellizance. Integrity, and Discretion of

Charles B. Luttrell

Does, In Pensuance of Authorary Vested In 18 by law, hereby certify that he having submitted satisfactory evidence, of his ability and a perionce; is a

REGISTERED PROFESSIONAL, ENGINEER

Registration Rumber

(To Bold) and use such title in the practice of his profession, subject to the conditions presoribed by law



Circu under the hand and the Soal of the Roard at the Capital in the Esty of Charleston this 28th dayof July in the year of our Lord One Thousand Nine Hundred and Ninety-nine and of the State the One Rundred Thirty-sixth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

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Frank ! Nully

Carol A. Stevens, PE, F.ASCE

Structural Engineer



EDUCATION

West Virginia University, BSCE, 1984
Chi Epsilon National Civl Engineering Honorary
The Pennsylvania St ate University, ME Eng Sci, 1989

PROFESSIONAL REGISTRATION

P.E.	1990	Pennsylvania
P.E.	1991	West Virginia
P.E.	1994	Maryland
P.E.	2008	Ohio
P.E.	2010	Kentucky
P.E.	2013	Virginia

BACKGROUNI	O SUMMARY
2001 - Present	President, Structural Engineer
	CAS Structural Engineering, Inc.
1999 – 2001	Structural Engineer
	Clingenpeel/McBrayer & Assoc, Inc.
1996 – 1999	Transportation Department Manager
	Structural Engineer
	Chapman Technical Group, Inc.
1995 – 1996	Structural Engineer
	Alpha Associates, Inc.
1988 – 1995	Structural Department Manager
	Structural Engineer
	NuTec Design Associates, Inc.
1982 – 1988	Engineer
	AAI Corporation, Inc.

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers
National Society of Professional Engineers
American Concrete Institute
American Institute of Steel Construction
West Virginia University Department of Civil and
Environmental Engineering Advisory Committee
West Virginia University Institute of Technology
Department of Civil Engineering Advisory Committee

EXPERIENCE

West Virginia, State Capitol Complex, Holly Grove Mansion: Structural evaluation report for preliminary condition assessment of building structure. Another project included complete analysis of structure for new use. Building is on the National Register of Historic Places and was constructed in 1815.

West Virginia, State Capitol Complex, Main Capitol Building Dome: Exploratory investigation of structural steel components of Lantern Level of dome and development of contract documents for repairs. Building is on the National Register of Historic Places and was constructed in the 1930's. Received a NYAIA Merit Award for Design Excellence.

West Virginia, State Capitol Complex, Main Capitol Building Exterior Façade Restoration: Investigation and preparation of details for repairs to limestone and terra cotta exterior façade. Building is on the National Register of Historic Places and was constructed in the 1920's and 1930's.

West Virginia, State Capitol Complex, Main Capitol Building Parapet: Exploratory investigation of limestone/brick parapet/balustrade of Main Capitol Building to determine cause of movement/cracking/ leaks. Construction contract for repairs has been completed. Building is on the National Register of Historic Places and was constructed in the 1920's and 1930's.

West Virginia, Roane County Courthouse:

Structural analysis of existing floor framing for addition of new high-density file storage system on upper floor level.

West Virginia, Lewis County Courthouse:

Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Tucker County Courthouse: Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Boone County Courthouse: Structural analysis of existing floor framing for addition of high-

density file storage systems at different locations.

West Virginia, Gilmer County Courthouse: Structural analysis of existing floor framing for addition of high-density file storage system on upper floor level.

West Virginia, First Presbyterian Church Restoration: Structural renovations of steel in lantern level and terra cotta cornice, overview of repairs to limestone and terra cotta façade of 1920's structure.

West Virginia, State Capitol Complex, Governor's Mansion: Structural analysis and design in addition to evaluation report for modifications and renovations to several areas of mansion. Building is on the National Register of Historic Places and was constructed in the 1920's.

West Virginia, State Capitol Complex, Building 5: Structural design and analysis for support of new boilers and other mechanical equipment to be placed in mechanical penthouse.

West Virginia, State Capitol Complex, Building 7: Investigation and development of Construction Documents for new elevators.

West Virginia, State Capitol Complex, Building 3: Structural design and construction administration of repairs to limestone canopy. Building is eligible to be placed on National Register of Historic Places and was constructed in the 1950's.

West Virginia, Upshur County Courthouse: Developed construction documents for structural repairs to main entrance, dome and monumental sandstone columns of 1899 structure. Work was recently completed and received a WVAIA Honor Award for Design Excellence.

West Virginia, State Capitol Complex, Governor's Mansion: Structural analysis and design in addition to evaluation report for modifications and renovations to several areas of mansion. Building is on the National Register of Historic Places and was constructed in the 1920's.

Ohio, Mahoning County Courthouse: Completed preliminary structural observation report of exterior façade conditions to recommended phased repairs for terra cotta and granite façade. Building is on the National Register of Historic Places and was constructed in the early 1900's.

PREVIOUS EXPERIENCE

West Virginia, State Capitol Building, North Portico Steps:
Designed structural system to replace deteriorated reinforced concrete slab at landing on north side of Capitol steps.
Building is on the National Register of Historic Places and was constructed in the 1930's.

West Virginia, Upshur County Courthouse Annex: Performed structural evaluation and design for repairs to existing multistory Annex addition.

Michael J. Minigh

MoistureTech Consulting

Parkersburg, WV

304-904-6055

Purpose/Summary:

To utilize my 31 years of construction experience and EIFS/moisture intrusion technical expertise to prevent/locate/resolve building envelope moisture intrusion problems and exterior insulation systems (EIFS) to reduce long-term heating/cooling costs of government, commercial, institutional and residential buildings.

To educate/advise government officials, architects, designers.

Experience:



Project Engineer

KTA-Tator, Inc.

September 2014 – Present (9 months) Dobson, NC/ Pittsburgh, PA

Job Description

Testing of moisture content and condition of concrete floors and walls. Testing of paint adhesion on exterior of CMU, pre-cast and masonry walls. Examination and evaluation of various types of roofing materials. Use of several types of testing equipment to determine moisture content and suitability for specific floor covering installment. Tested covered concrete floors to determine the cause of delamination and propose solutions.

3rd. Party Moisture Intrusion/EIFS Consultant/Expert Witness

MoisureTech Consulting (Exterior Envelope/EIFS)

July 2006 – Present (10 years 10 months) All USA

Independent 3rd. Party Consultant. EIFS/Moisture intrusion. Expert Witness/Preconstruction problem prevention.

Identified numerous moisture intrusion problems/damaged structure areas on commercial and residential

construction project deficiencies through visual inspection, instrumental and destructive testing and analysis of specifications, contractual documents and manufacturer's requirements.

Identified and resolved sources of air and water intrusion. Identified and resolved design and installation deficiencies. Defined and developed appropriate correction procedures and cost-effective repairs. Prepared detailed reports and architectural details based on site inspection, samples, moisture and destructive tests. Provided site management, scheduling of repairs, and documentation of deficiencies and corrections. Supervised, documented and/or performed repairs on numerous commercial and residential projects across the US. Investigated the cause of moisture intrusion and extent of damage on numerous residential and commercial buildings

Quality Control Administrator

Moisture Warranty Corporation

June 2002 - June 2006 (4 years 1 month) Cornelius, NC

Quality Control Administrator/Consultant; Posey vs. Dryvit Systems Inc.

Consultant for Moisture Warranty Corporation to establish the court-approved moisture inspection and repair protocols. Trained and certified dozens of moisture inspectors and repair contractors, and inspected numerous projects nationally for moisture-testing accuracy and proper repair procedures. Examined hundreds of inspection reports for diligence and accuracy. Developed individual repair procedures for unique leak/repair problems. Wrote numerous articles for specific inspection and repair problems.

Extensively tested thermal imaging cameras for viability as a moisture locating tool for brick, stucco and EIFS walls.

Tested and established temperature limitations of moisture testing meters used nationally.

Upon request of the Minnesota Building Code Council, wrote and submitted Portland cement stucco installation and flashing requirements to be adopted into the state building code, to assure that external moisture damage would be virtually eliminated.

Co- designed/patented "DamSill", a window sill drain pan used extensively across the US to prevent moisture damage under windows.

EIFS Consultant/Warranty Repair Contractor

EIFS Consulting

November 1989 – June 2002 (12 years 8 months) Worked Nationwide

EIFS technical and repair consultant. Contracted with the major EIFS manufacturers to inspect, verify and/or repair warranty claims across the US and performed warranty repair work.

Completed approximately twelve million (12,000,000) square feet of rust particle removal /stain cleaning, coating, and repairs in 25 states.

Performed significant concrete cleaning, restoration, and repair projects in several states.

Southeast District Sales Manager (11 states)

Senergy Wall Systems (Now BASF Wall Systems)

April 1989 - September 1990 (1 year 6 months Southeast US

Southeastern District Sales/Product Manager. (11 Southeastern states)

Managed sales force of distributors and direct sales representatives for EIFS products in 11 southeastern states. Developed EIFS training programs for existing and new distributors to educate staff in customer service, project tracking, quality control, architectural presentations, applicator training, and project inspection. Located and trained new distributors and new direct sales representatives in open and/or under-producing areas. Developed technical EIFS presentations for technical service representatives and trained them to present to architects, general contractors and plastering firms. Designed trade show displays for professional-looking presentation. Planned/organized southeast district distributor sales meeting and training.

Technical Sales/Sales Manager- Dryvit Products

W. Fred Casey Co.

October 1985 – April 1989 (3 years 7 months) Charlotte, North Carolina

Sales Manager/Technical Sales Representative for Dryvit Products

Sold EIFS, metal roof and wall panels, skylights, etc. in North and South Carolina. Managed Dryvit sales in NC. Increased Dryvit sales in NC by 250% in three years.

Provided training for sales force, applicator contractors, architects and general contractors. Developed promotion and marketing programs for the distributorship. Provided EIFS consultation, technical assistance and quality control seminars to applicators, general contractors, and architectural firms. Trained new salespersons in sales presentations, technical information, territory management and customer service and EIFS project inspection.

Developed a one-page Job Review Sheet used nationally by EIFS technical representatives, engineering firms, EIFS inspectors and owners to assure that EIF systems were being installed according to manufacturer's requirements. Review Sheet was adopted by AWCI for their EIFS certification training and workbook.

Commercial Systems, Inc.

Exterior Insulation and Finish System Technician

April 1984 – October 1985 (1 year 7 months) Myrtle Beach, SC

Exterior Insulation and Finish System Technician.

Learned to install EIFS and properly use plastering tools (trained by a union plasterer). Installed EIFS system, trained new employees and solved numerous job related problems. Organized material and labor use and coordinated activities with project supervisors to reduce time loss and increase productivity. Without this field experience, my technical expertise would lack real-world validity.

Moisture Intrusion Consulting Projects

August 1995 – May 2015

Investigated the cause of moisture intrusion and extent of damage on numerous residential and commercial buildings across the USA.

Examined and studied the project plans, details, specifications, change orders, manufacturer's instructions and applicable building codes to determine the responsible parties.

Developed the most practical repair protocol and supervised repairs to numerous residential and commercial projects.

Project Photos available upon request.

Independent Coursework

Course Medical Terminology

Elizabeth Moss, LEED AP

Historic Preservation Specialist

Ms. Moss's 18 years of experience have focused in restoration, preservation, renabilitation and adaptive reuse of existing commercial, civic, religious and residential buildings. She is experienced in all phases of the design and construction process and is an expert in the evaluation and preservation of historically significant structures. As Director of Historic Preservation at Swanke Hayden Connell Architects, she was involved with all aspects of business development, staffing, project management and overseeing the design and technical development of work on historically significant structures of all building types.

Education

University of Pennsylvania

Master of Science, Historic Preservation, 1998

McCrone Research Institute; Microscopy for Art

Conservators, IFA, New York, NY, 1994

Vassar College

Bachelor of Arts, 1992

Work Experience

Swanke Hayden Connell Architects (2000 - 2015) Director of Historic Preservation

SUPERSTRUCTURES Engineers+Architects (1999)
Designer

Jablonski Berkowitz Conservation (1997-1999)
Architectural Conservator

ECR Antiques Conservation & Restoration (1994-1996)

Professional Qualifications & Affiliations

Association for Preservation Technology Northeast Chapter,
Board of Directors (2003-2013)

US/ICOMOS, Brick Masonry and Ceramics Committee

U.S. Green Building Council, LEED® Accredited Professional

NYC DOB Scaffold Training Certification

JOS Microabrasion and Manufacturer Certification

Asbestos Awareness Training

OSHA 10-hour Training

Selected References

Tavern on the Green Restoration, Central ParkMichael Nastasi, Assistant Commissioner, DDC
(718) 391-1174

Barnum Museum Restoration, Bridgeport, CTKathleen Maher, Executive Director
(203) 331-1104

Liberty Theater Restoration, 42nd Street, NYSadie Mitnick, Forest City Ratner
(718) 923-8456

Select Project Experience

Tavern on the Green Restoration, New York, NY \$15.8 million core and shell rehabilitation, building envelope restoration and infrastructure upgrades for subsequent interior fit-out for Tavern on the Green. The project is designed to achieve LEED Silver certification for sustainable design.

West Virginia State Capitol, Charleston, WV

\$12 million restoration of 1932 Cass Gilbert landmark building, including structural repairs and regilding of the dome, masonry repairs, cleaning and bronze and steel window rehabilitation, as well as selective interior paint color characterization and chandelier conservation.

Internal Revenue Service Headquarters, Washington, DC Comprehensive materials investigation and testing program to prepare prescriptive technical specifications as part of the restoration of a 1.4 million SF Beaux Arts federal office building.

14 Penn Plaza, New York, NY

\$1.2 million renovation of historic Gothic Revival marble and plaster lobby; complete with a new lighting scheme and decorative ceiling finishes.

Barnum Museum, Bridgeport, CT

envelope stabilization / rehabilitation.

Washington, DC

Following damage from a direct hit from a tornado, preparation of a comprehensive Conditions Assessment Evaluation and subsequent restoration program of 1890's museum.

West Point U.S. Military Academy, West Point, NY
Exterior conditions assessment of over 300 historic 19th and
20th C. homes to determine scope and cost for building

National Society Daughter's of the American Revolution,

Assist with Master Plan, Facilities Assessment and subsequent rehabilitation of the 500,000 sf, 3-building complex which includes a concert hall, museum and office headquarters.

Elizabeth Moss, LEED AP

Historic Preservation Specialist

Holly Grove Mansion, Charleston, WV

\$4 million interior and exterior rehabilitation of historic 1815 mansion including infrastructure upgrades, facade restoration & ADA compliance. Project subject to WV SHPO review.

Liberty Theatre/Famous Daves, 234 West 42nd St., NY, NYPreparation of Preservation Plan and oversight of restoration of historic 1904 theatre auditorium for adaptive restaurant use.

Columbia University Off-campus Properties, Morningside Heights, New York, NY

Roofing assessment and exterior rehabilitation of over 100 onand off-campus historic c. 1900 residential buildings for Columbia University Facilities.

PS 157, Brooklyn, NY

\$12.5 million facade restoration of historic 1907public school that included the fabrication of over 6,000 new terra cotta units,& underlying structural stee! repairs; Exterior maintenance manual.

Home Life Insurance Building and Postal Telegraph Building, 253-256 Broadway, New York, NY

\$15 million restoration project of two interconnected 1894 municipal buildings as part of a comprehensive façade and window restoration project.

First Presbyterian Church, Charleston, WV

Subsequent to initial Conditions Assessment Report, \$2.8 million exterior restoration of historic 1915 church including restoration of stained glass windows, limestone & terra cotta façade, cupola and roofing replacement.

FDNY Communication Offices, New York, NY

In-house preservation consultant for \$20 million building rehabilitation and upgrades of four 1912 - 1923 historic fire alarm buildings (Manhattan, Bronx, Brooklyn, Queens).

Hall of Records, 31 Chambers Street, New York, NY \$4 million facade restoration of 1899 Beaux Arts landmark; \$3 million 2nd floor rehabilitation, building systems upgrade, tenant improvements.

24 Fifth Avenue, New York, NY

Restoration of scagliola, marble, travertine, wood, ornamental metal and decorative finishes for this 420 unit, 18 story c. 1926 apartment building.

132-140 Greene Street, New York, NY

Comprehensive rehabilitation of three six-story cast-iron facades, including energy efficient wood window replacement in landmarked buildings.

moosster@gmail.com 646.244.7770 504 West 48th Street, 3E New York, NY 10036

Awards and Honors

New York Landmarks Conservancy, Lucy G. Moses Award 2015 to Tavern on the Green, Central Park

Building Design + Construction, Silver Award 2014Tavern on the Green

New York Landmarks Conservancy, Lucy G. Moses Award 2013 to Home Life Insurance Building, 256 Broadway

SARA NY Design Award 2013 Gold Award of Excellence Home Life Insurance Building, 256 Broadway

SARA NY Design Award of Honor 2012 Liberty Theater, New York, NY

New York Landmarks Conservancy, Lucy G. Moses Award 2012 to 14 Penn Plaza, New York, NY

New York Landmarks Conservancy, Lucy G. Moses Award 2011 to Surrogate's Court/Hall of Records 31 Chambers Street

SARA NY Design Award of Merit 2011

Surrogate's Court/Hall of Records 31 Chambers Street

Preservation League of NY State Preservation Awards 2001 to NYC DDC for Public School 157

New York Landmarks Conservancy, Lucy G. Moses Award 2001 for Public School 157

Samuel H. Kress Fellowship

1994, 1996, 1997, 2001 field seasons at Caesarea, Israel and Catalhoyuk, Turkey

Publications and Presentations

"Withstanding the Test of Time: The WV Dome Revisited Ten Years Later", Durability and Design, June 2015 (upcoming)

"Asphalt Green's Fresh Face: A Construction Team Copes with the Unexpected in Restoring a NY Landmark", Durability and Design, May 2014.

"Use of Contemporary Painted Coatings in the Restoration of Exterior Historic Elements at the WV State Capitol", SSPC PACE Conference Expo Proceedings, February 2010.

"Temporary Site Protection for Earthen Walls and Murals at Catalhoyuk, Turkey", Conservation and Management of Archaeological Sites. 6:213-227; 2004.

"Notwithstanding the Test of Time: The Dilemma of the NY Public School System", APT Conference Proceedings, 2001.



DISCLOSURE STATEMENTS

- 1. Alpha Associates, Incorporated and Moisture Tech have the ability and capacity to complete all aspects of this project in its entirety.
- 2. Alpha Associates, Incorporated fully understands and accepts that any and all work produced as a result of the contract will become property of the Agency and can be used or shared by the Agency as deemed appropriate.
- 3. Alpha Associates, Incorporated has not had any lawsuits filed against the firm, its principals, or any joint venture partner for misfeasance or malfeasance of professional services. Nor has Alpha had any litigation or arbitration proceedings, including vendor complaints filed with the State's Purchasing Division, disputes with other Agencies of the State of West Virginia that involved legal representation by either party relating to the firm's delivery of design services.





RELATED EXPERIENCE

Building 25: Façade Investigation, Parkersburg, WV

The goal for this project for the State of West Virginia was assumed to have water infiltration because of EFIS faced material. Investigation proved through observation, probing and testing determined that the existing windows were installed without any flashings at heads, missing gaskets, and no end dams of flashing at sills. A team was contracted to develop corrective procedure through contract documents of window and façade replacement and other items.



The project has not been sent out to bid.

DOH District 2 Equipment Shed Roofing Project, Huntington, WV

The goal for this project for the West Virginia Division of Highways was to determine locations of water infiltration and resolve issues through alternative solutions for roof replacement and eliminate source of water infiltration.



During investigation it was necessary for the design team to contract for mechanical lefts to inspect the structural loading capabilities of the existing structure. It was determined that an overflow of water was occurring in existing gutters and insufficient quantity of rain leaders. A team was subsequently contracted to develop corrective procedures through contract documents of roof replacement and additional rain leaders with newly lined gutters and downspouts.

Project Contact: Chris Francis, P.E.

WVDOH Engineering Division 1334 Smith Street

Charleston, WV 25301

(304) 558-9693





Holiday Inn Water Infiltration, Charleston, WV

The goal of this project was to determine source of water infiltration at a newly renovated façade. Investigation determined that insufficient caulking, inverted fin louvers and inappropriate attachment to existing aluminum frame windows all contributed to water infiltration. The findings were discussed with the building owner for pursuit of correction by own forces.

The project was completed in 2012 for Robinson & McElwee, PLLC.

Project Contact: Robinson & McElwee, PLLC

P.O. Box 1791

Charleston, WV 25326

(304)-720-6750



Alpha Associates, Inc. provided multiple structural evaluations for buildings on the Alderson Broaddus Campus. These buildings include: Heiner Dining Hall, Kemper-Redd Science Center, Withers-Brandon Hall, Burbick Hall, and Rex Pyles Arena.



Alpha provided limited structural evaluations for the above buildings. The evaluations consisted of the problematic areas as indicated by the owner. Once the evaluations were complete the Owner was given a report detailing our observations, our conclusions and our recommendations for repairs for each of the buildings listed above. Estimates of probable construction costs were included.

The projects were completed between 2007 and 2010 for Alderson-Broaddus College.

Project Contact: Chad Plymale

P.O. Box 2066 Philippi, WV 26416 (304)-457-6334





Salem International University Building Evaluations, Salem, WV

Alpha Associates, Inc. was hired by Palmer Group to do evaluations of selected buildings on the Salem International Campus.

The first phase of the project involved the evaluation of the T. Edwards Davis Sports Venue, the Hoffheimer Hall Women's Dormitory and the Montgomery Hall Men's Dormitory.



The second phase involved the evaluation of the Randolph Campus Center Admin Building, the Benedum Library, the Carlson Hall of Science and Randolph Hall, and another dormitory.

The third phase involved the evaluation of three currently vacant dormitories: Birch Hall, Maple Hall and Oak Hall.

Services included observations of all structural elements, MEP systems, and ADA accessibility. The project was completed in 2005 for The Palmer Group.

Project Contact: Russell Palmer

3600 Market Street Philadelphia, PA 19104

(215) 243-2590

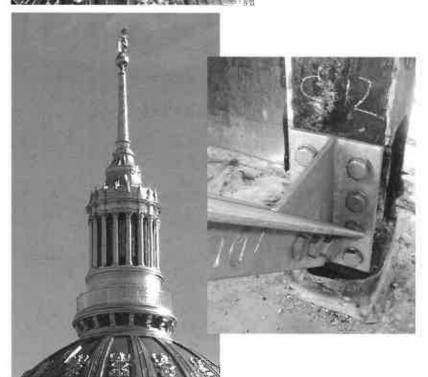


STRUCTURAL INVESTIGATION MAIN CAPITOL BUILDING DOME

Charleston, West Virginia



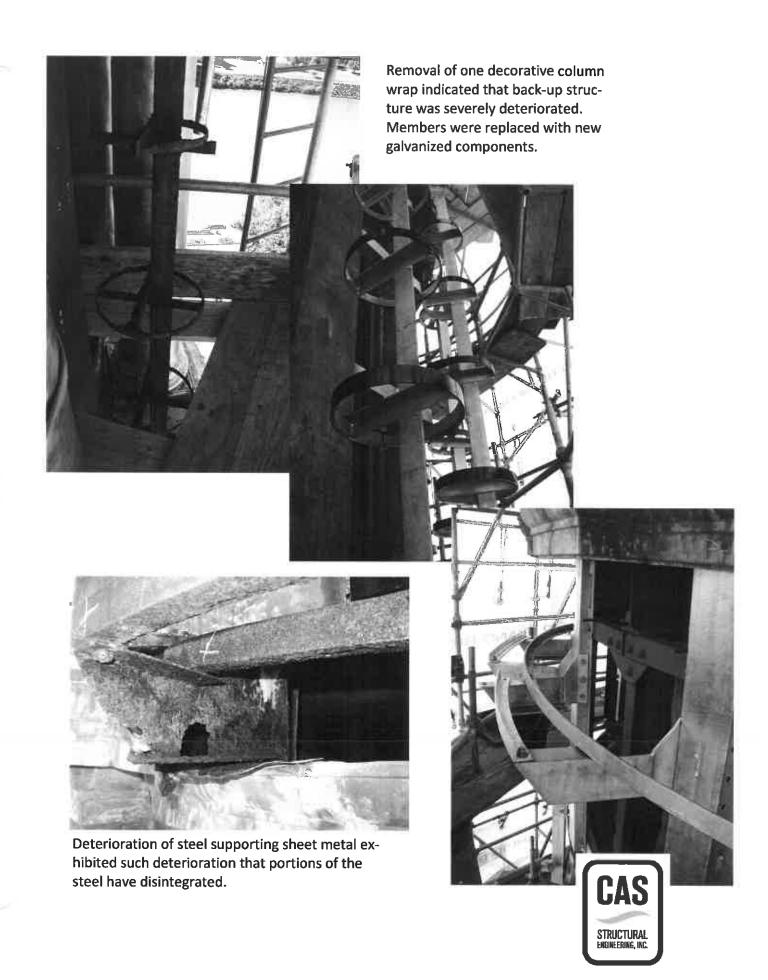
The structural steel in the lantern level shows evidence of deterioration. Project included probing to determine extent of deterioration and preparation of plans and specifications for repairs.



AIA New York State Merit Award 2006

The structural steel after being repaired and the regilding complete. Project included returning the dome to the original Cass Gilbert color scheme.







Concrete at the railing level was hidden from view and repaired once the sheet metals was removed and the deterioration was found.



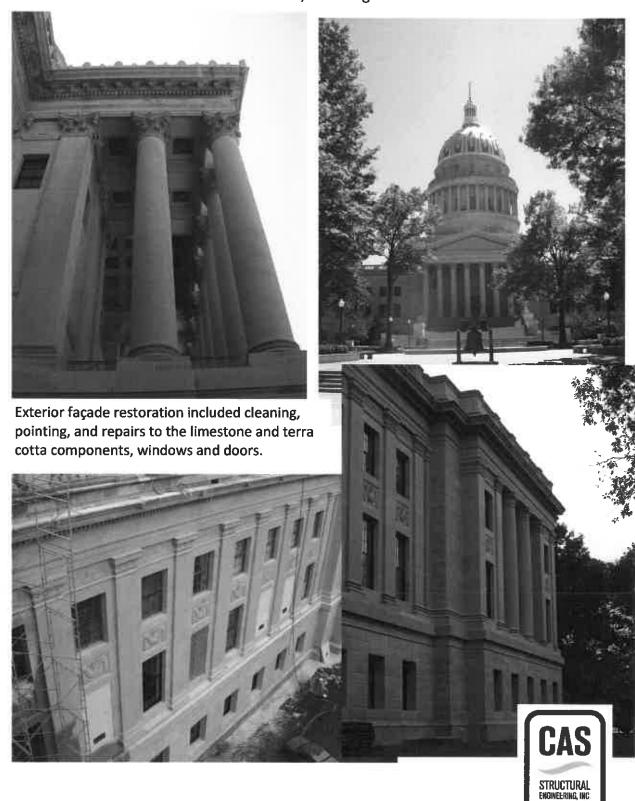


Completed dome restoration shows the original sheet metal detail on the previous lead coated copper sheet metal. The lead coating was compromised over the years. As a result, a coating system had to be applied to protect the copper sheet metal.



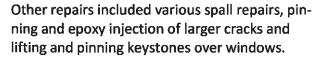
EXTERIOR FAÇADE RESTORATION MAIN CAPITOL BUILDING

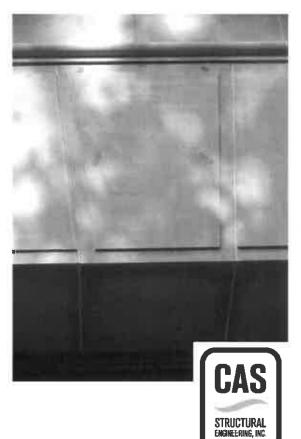
Charleston, West Virginia











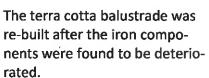
FIRST PRESBYTERIAN CHURCH EXTERIOR FACADE RESTORATION

Charleston, West Virginia

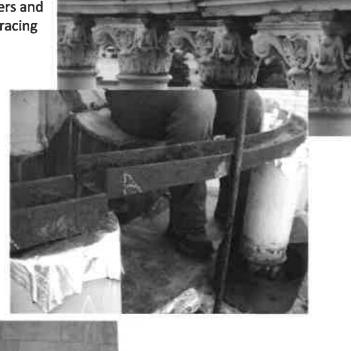


The terra cotta and limestone exterior of this 1910's building was in need of being restored to prevent continued damage to the exterior and interior of the build-

ing. The structural steel in the lantern level was replaced with stainless steel members and wind bracing

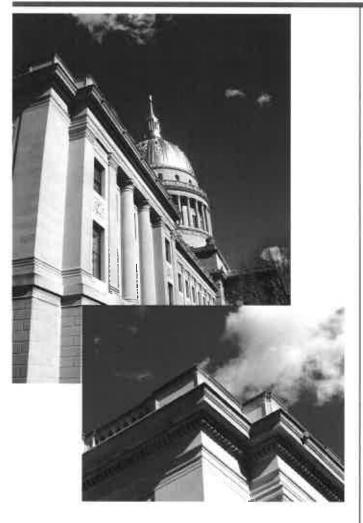


The corners of the terra cotta cornice exhibited significant deterioration of the mortar joints and rotation of the units. It was found that the supporting steel members were not adequate for the load that was being supported. They were also replaced with stainless steel compo-





Project Experience



CAPITOL PARAPET WALL REPAIRS

Charleston, West Virginia

This project included an exploratory investigation and preparation of construction documents for repairs to the limestone and brick parapet wall and balustrade at the top of the Capitol Building.



CAPITOL DOME RESTORATION

Charleston, West Virginia

This project included an exploratory investigation and preparation of construction documents for repairs to the structural steel in Capitol Dome.



Project Experience



BUILDING 3 CANOPY REPAIRS

Charleston, West Virginia

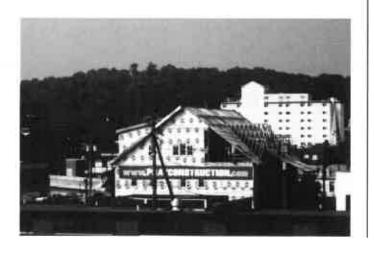
Structural design of repairs to existing limestone canopy and supporting structural elements. Discovered that as-built conditions differed from original design documentation



GEORGE WASHINGTON HIGH SCHOOL

Charleston, West Virginia

Structural design of additions to include new 3-story classroom addition, new entrance/commons addition, and new gymnasium addition for Kanawha County Schools.



COVENANT HOUSE

Charleston, West Virginia

This 3-story structure utilized a structural steel frame and light-gauge steel roof trusses for the structural system. The 13,700 SF building was designed to appear as a residential structure, with vinyl siding, asphalt shingles, dormers and gingerbread accents.

Project Experience





JOHNSON AVENUE PROFESSIONAL BUILDING

Bridgeport, West Virginia

Structural design of new 9,400 SF steel framed office building.

YORK COUNTY GOVERNMENT CENTER

York, Pennsylvania

Structural analysis and design of 1898 former department store converted to county government offices. Interior renovations included adding floor framing at mezzanine level, analyzing and redesigning deficient floor framing, and adding new elevators. Exterior renovations included complete façade rework to recreate original appearance.

METROPOLITAN EDISON

Reading, Pennsylvania

The two-story, 5000 SF lobby replaced an outdated 1200 SF lobby and business office. The lobby addition, which serves as a focal piece for the Headquarters Complex, contains several conference rooms and a second floor bridge spanning the width of the lobby. The lobby addition consisted of structural steel framing. An 80,000 SF office addition was constructed during the second phase of this project. A semi-circular cafeteria addition was located at the rear of the complex.



REFERENCES

Michael Evans, Architect State of West Virginia 1900 Kanawha Blvd,, East Bldg. 1 Room MB-60 Charleston, WV 25305 304-957-7145

State of West Virginia 1409 Greenbrier Street Charleston, WV 25305 304-558-0510

Kent George, CEO
Robinson & McElwee
Holiday Inn & Suites South Charleston
700 Virginia Street East
Charleston, WV 25301
304-344-5800

Jim King Higher Education Policy Commission 1018 Kanawha Blvd., East Suite 700 Charleston, WV 25301 304-558-0281

Chris Francis, P.E.
WVDOH Engineering Division
Project Manager
1334 Smith Street
Charleston, WV 25301
Phone: (304) 558-9693

Every aspect and detail of your planning, coordination, and completed projects have been exceptional and outstanding in every regard.

Robert Hammel, Former Director Morgantown Municipal Airport

The entire staff at Alpha has always been responsive, professional, creative, and practical. Most importantly, they are always concerned about our needs as a client. They quickly respond to challenges that arise during construction.

Brian Thomas, President Clear Mountain Bank

