

RFQ COPY

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State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

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ROBERTA WAGNER B04-558-0067

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HEALTH AND HUMAN RESOURCES BPH - LABORATORY SERVICES

ADDRESS CORRESPONDENCE TO ATTENTION OF

167-ELEVENTH AVENUE

SOUTH CHARLESTON, WV 304-558-3530 25303

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GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. All quotations are governed by the West Virginia Code and the Legislative Rules of the Purchasing Division.
- 4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
- 5. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
- 6. Payment may only be made after the delivery and acceptance of goods or services.
- 7. Interest may be paid for late payment in accordance with the West Virginia Code.
- 8. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract
- 12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties
- 13. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and vold, and terminated without further order.
- 14. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 15. WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT: If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division
- 2. SPECIFICATIONS: Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Complete all sections of the quotation form.
- 4. Unit prices shall prevail in case of discrepancy.
- 5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- **6. BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130

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:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code The vendor must make said affirmation with its bid submission. Further, 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

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. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/ noticeConfidentiality pdf.

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

North Alpha Associates Incorporated	
Vendor's Name: Alpha Associates, Incorporated Authorized Signature	
Authorized Signature	
Purchasing Affidavit (Revised 01/01/09)	



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Request for Quotation

LBS90030

PAGE 1

ADDRE	SS:CORRESPO	NDENCE TO ATTENTION OF
ROBERTA	WAGNER	
304-558-	-0067	

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HEALTH AND HUMAN RESOURCES BPH - LABORATORY SERVICES

167-ELEVENTH AVENUE SOUTH CHARLESTON, WV 25303 304-558-3530

DATE PRINTED TERMS OF SALE SHIPVIA FOB FREIGHT TERMS 01/28/2009 BID OPENING DATE 02/12/2009 OPENING TIME 01:30PM CAT LINE QUANTITY UOP ITEM NUMBER UNITPRICE AMOUNT ADDENDUM NO. 1 1 QUESTIONS AND ANSWERS ARE ATTACHED. 2 ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID. EXHIBIT 10 REQUISITION NO.: LBS90030 ADDENDUM ACKNOWLEDGEMENT I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED Addendum(s) And have made the necessary revisions to my PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NO 'S: NO 1 X NO 3 NO. 4 NO. 5 I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. SEE REVERSE SIDE FOR TERMS AND CONDITIONS 304-296-8216 02-11-09 TILE President and COO FEIN 55-0516286 ADDRESS CHANGES TO BE NOTED ABOVE



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Department of Administration
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ARCHITECTS • ENGINEERS • SURVEYORS

February 12, 2009

Purchasing Division 2019 Washington Street, East P.O. Box 50130 Charleston, WV 25305-0130

Attn: Ms. Roberta Wagner

Re: Expression of Interest – Architectural and Engineering Services

Dear Ms. Wagner,

Alpha Associates, Incorporated is pleased to submit this Expression of Interest to provide architectural and engineering services for the Department of Health and Human Resources, Bureau for Public Health, Office of Laboratory Services

Alpha has provided master planning, budgeting, and design services for multiple clients throughout our 40 years of operation. We have a wide array of laboratory design experience, including numerous projects for West Virginia University and the Robert C. Byrd Health Sciences Center. Alpha will put this experience to work for the Department of Health and Human Resources.

Alpha offers services in architectural design, civil engineering, structural engineering, interior design, surveying, landscape design and construction administration. We have a dedicated staff of 40 professionals and support staff that will make your project a priority

H.F. Lenz Company located in Johnstown, Pennsylvania will provide mechanical, electrical, plumbing and fire protection engineering services as part of Alpha's team. We have worked together with H.F. Lenz on many projects in the past, including multiple laboratory projects.

Alpha's team has the knowledge and experience to successfully complete your projects. Our design team is ready to begin work immediately. We look forward to sharing our ideas and qualifications with you in an interview.

Sincerely,

ALPHA ASSOCIATES, INCORPORATED

James A. Davison, AIA

Vice President

jdavison@alphaaec.com

Evaluation Criteria ALPHA ASSOCIATES.

INCORPORATED
2009



Evaluation Criteria

Alpha Associates, Incorporated

4.2.1

Firm should provide the company's statement of qualifications for the last ten years and the general area of architectural expertise. Firm should provide material to illustrate their efficiency in construction design, reduced energy consumption, and any other data to indicate reduced cost of ownership of a structure as a result of the architect's services.

Alpha Associates, Incorporated is a West Virginia owned and operated design firm. The construction market in West Virginia is varied, allowing firms like ours to be involved in many types of design projects. West Virginia University has provided us the opportunity to be involved in multiple design projects that included high tech, modern laboratory facilities.

The past several years has brought energy conservation to the forefront in the and construction industries Alpha Associates, Incorporated has been utilizing energy conscious design elements and techniques in our projects for many years. Alpha is a member of the United States Green Building Council (USGBC) which provides a resource to educate the staff on design decisions to further reduce energy consumption.



Alpha's architectural staff will be supported by Mr. Tom Pritts, AIA. Mr. Pritts, a LEED Accredited Professional, will be an integral part of the design team and will bring his expertise to the table to produce not only a project that meets your needs currently, but will keep the environment as a priority.

4.2.2

Firm should provide no more than two (2) page resumes for each employee who would be providing their services. Describe the firm's resources available for assuring accuracy of drawings and compatibility of materials.

Alpha Associates, Incorporated has been providing design services in West Virginia sine 1969. When the firm began, the first client was the West Virginia

Evaluation Criteria

ALPHA ASSOCIATES INCORPORATED 2009



University Health Sciences Center Over the past 40 years, Alpha's designers have completed numerous designs in this facility, now totaling nearly 1,000,000 square feet of design. This speaks to Alpha's ability to provide quality, high-tech renovation designs. In order to provide designs for renovation projects, compatibility and accuracy are a must. Alpha has both internal and external quality control measures to assure that drawings and specifications are top notch. Alpha provides multiple services "under one roof". The architectural design, civil and structural engineering, interior design, surveying and landscape design are all performed in Alpha's Morgantown office. This allows for cross discipline coordination that is vital during a renovation project.

For your project, we have included a consultant on our team to provide Mechanical, Electrical, Plumbing and Fire Protection engineering. H. F. Lenz Company has provided engineering for multiple projects with Alpha Associates in the past. The projects in the past have created coordination between Alpha's staff and the Lenz engineers that is seamless.

Alpha Associates, Incorporated is unique in the manner in which we approach projects. Each project is approached individually and a project team is selected. As mentioned above, internally at Alpha, we provide architectural design, civil and structural engineering, surveying, and landscape design. Many of those services will be utilized for your project. At Alpha Associates, even though you are provided multiple services, you still have a single point of contact. For each task order under your contract, **Mr. Jim Davison** was selected to act as Principal-In-Charge and your single point of contact. As an owner of the firm, Mr. Davison has a vested interest in seeing your project succeed. As an architect, Mr. Davison has been involved in most of the laboratory projects that have been designed throughout the firm's history. Alpha has 40 staff members with available capacity to begin design work immediately.

4.2.3

Firm should provide or demonstrate construction management/performance data and identify the tasks and responsibilities performed for the property owner. Firm should demonstrate ability to establish and/or manage project time lines to assure compliance with the original specifications without additional changes to the project design.

During the programming and planning phase, the owner and the design team work hand in hand to develop the individual task orders that are a part of this contract. We will meet with your management, laboratory staff, maintenance staff, and Agency representatives to evaluate your needs. The input you provide will be the basis of the designs of the individual task orders. Once the data is gathered, the projects prioritized, and phasing determined, the responsibility of the Owners representative's decreases. The key to effective programming is the

Evaluation Criteria

ALPHA ASSOCIATES INCORPORATED 2009



ability of the design team to **listen to your representatives** and incorporate the discussions into the designs.

As scientists and public health professionals, your area of expertise is much different than that of an architect or engineer. The design team will keep you informed about the design process and help you understand the issues of construction throughout the process. Many clients express concern over having to make design decisions without adequate guidance from their design professional. Alpha's design team will be with you each step of the way, assuring that the end product meets your needs.

During construction, Alpha's staff will be on site on a regular basis to monitor construction and assure that the design is being executed properly. During the construction phase, we field questions from the Contractor, review Contractor Pay Applications, review shop drawings and generally manage the process. Your interaction and responsibility during the construction phase will be minimal, with Alpha acting as your representative.

Alpha Associates, Incorporated has established effective communication practices to keep the Agency, the staff and the committee informed. We utilize our website (www.alphaaec.com) as much more than a marketing tool. When you visit the site, a section named "Current Projects" exists — once awarded the project, we can add your name to that list. Through that link, we have the ability to post communications to both the general public, as well as to your staff. The project specific, detailed information including meeting minutes, project photos, drawings, and cost estimates can be available to your designees, all in a password protected environment.

Also included on that website can be the project schedules. At the beginning of each task order, a detailed project schedule will be developed. Milestone dates, responsibility timelines, agency approval periods and required submittal timelines will all be included in the project schedule. Alpha's staff will communicate the changes to the schedule, as well as keep you informed of what is required of you each step of the way.

During the bidding phase, Alpha Associates, Incorporated has developed ways of attracting contractors to your project. We have established an area of our website (www.alphaaec.com) that allows prospective prime contractors, as well as subcontractors, to investigate projects out to bid. Over the past several months, we have noticed an increase in the number of bidders that are interested in our projects. This creates a more competitive bidding environment, thus giving you a better price. The current bidding environment is very competitive; leading us to

Evaluation Criteria ALPHA ASSOCIATES

INCORPORATED
2009



believe that time is of the essence. In today's economy, contractors are feeling the tightening of the economy and that is reflected in their bidding. Realizing the construction bids will be managed through state purchasing, we will also follow all rules and regulations set forth by that agency.



Firm Profile

Alpha Associates, Incorporated

Firm Name: Alpha Associates, Incorporated

Corporate Office: 209 Prairie Avenue

Morgantown, West Virginia 26501

Eastern Regional Office: 535 West King Street

Martinsburg, West Virginia 25401

Incorporated: 1969; Morgantown, West Virginia

Firm Principals: Richard A. Colebank, PE, PS; President and COO

Richard W Klein, PE, PS; Chairman and CEO William A Atwell, Jr., PE; Senior Vice President

James A. Davison, AIA; Vice President

Charles B. Luttrell, PE; Principal

Steven V. Buchanan, PE, PS; Principal

Matthew S. Breakey, AIA; Principal Charles B. Branch, PE; Principal

Number of Employees: 40 Employees







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

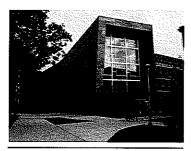


Firm Background and Services

Currently in its 63rd year, the H.F. Lenz Company is a Pennsylvania-based firm offering a full range of engineering services for building systems, infrastructure, and industry. Our projects span the nation, with the heaviest concentration in the Northeast, and exceed \$300 million in MEP construction annually Each market sector—corporate, government, health care, education, and industry—is served by a team of specialists who understand the unique needs of the clients they serve. Our team of 182 employees includes 47 professional engineers registered in a total of 40 states and DC. Our services include:

- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Life Safety / Fire Protection Engineering
- Communications Engineering
- Civil Engineering
- Structural Engineering
- Construction Phase Services
- LEED™ Design
- Commissioning

Our team for this project has extensive experience in the design of laboratory and research facilities, educational facilities, and office buildings for clients in both the public and private sectors



Penn State's new 115,000 sq ft. School of Architecture and Landscape Architecture has attained LEED™ Gold Certification and has won numerous design awards



New 50,000 sq.ft. DEA Building – has attained LEED™ Certification

Office Buildings

Office buildings—both renovated and new are the HF Lenz Company's forte. Our diverse experience includes numerous projects for private and public sector clients. Examples include: the new 179,000 sq.ft. Research and Economic Development Center, and the new School of Architecture and Landscape Architecture for Penn State University, Mellon Financial Corporation's new 750,000 sq.ft. Client Service Center, the new 50,000 sq.ft. design/build General Service Administration's DEA office building, the renovation of the 500,000 sq.ft. SSA Operations Building in Woodlawn, Maryland; and the renovation of the 1 3 million sq.ft. Robert F. Kennedy Main Justice Building, in Washington, DC.

Laboratory and Research Facilities

Our team has extensive expertise in the design of specialized mechanical and electrical systems for strictly-controlled laboratory and research environments. Our projects have included designs for chemical, biological, and analytical laboratories, optical research laboratories, radiation cells, carcinogenic research, animal research facilities, coatings and resins research, film and surface material research, chemical vapor deposition, and laser diagnostic laboratories. These projects have included new facilities as well as renovations of existing systems where phased construction of occupied facilities is often required.

LEED™

H.F. Lenz Company has been a member of the United States Green Building Council since 2000 and currently has fourteen (14) LEED™ Accredited Professionals on staff. To date, we have provided engineering services for 11 projects that have attained various levels of LEED™ Certification, including Gold and Silver ratings, and we currently have 21 design projects and 17 commissioning projects pending LEED™ Certification. H.F. Lenz Company was recently ranked in the "Top 100 Green Design Firms" in the Country by ENR Magazine (June 2008). That same month we became an Energy Star Partner Firm, and todate have been involved in the design of four buildings that have attained an Energy Star Rating.

H.F. Lenz Company Firm Profile Page 1 of 1

ALPHA ASSOCIATES, INCORPORATED

Firm Profile

Statement of Qualifications

Alpha Associates, Incorporated

Alpha Associates, Incorporated is an Architectural and Engineering firm that provides services in the areas of Architectural Design, Civil Engineering, Structural Engineering, Interior Design, Landscape Design, Construction Administration, Project Management, and Surveying. Your project will be managed and produced in our Corporate Office located in Morgantown, WV.

Your project benefits from the unique combination of

- extensive design and construction experience,
- advanced technology
- committed principals
- highly-trained staff

Since 1969, Alpha has provided conflict free projects that included Architecture and Engineering services to clients such as West Virginia University, West Virginia Department of Transportation, Public Service Districts throughout West Virginia, West Virginia School Building Authority, the U.S. Postal Service and US Department of Energy National Technology Laboratory, and many others. Our work is diverse and includes clients in commercial, educational and governmental facilities, developers and private organizations. Alpha's architects and engineers have recent, relevant project experience that enables your projects to be completed on time and within budget.

Alpha believes that technology is a tool in which both our clients and our firm can benefit. We strive to remain current on software and communication tools. Our computer-aided drafting stations are constantly being upgraded to provide better quality design and engineering services to our clients making use of AutoCAD 2009, in addition to other Civil and Structural Engineering software for design and drafting. Alpha's website enables our clients to communicate with us through our Internet home page, providing file transfer and project specific information as well as up-to-date information on Alpha Associates, Incorporated and its past, present and future

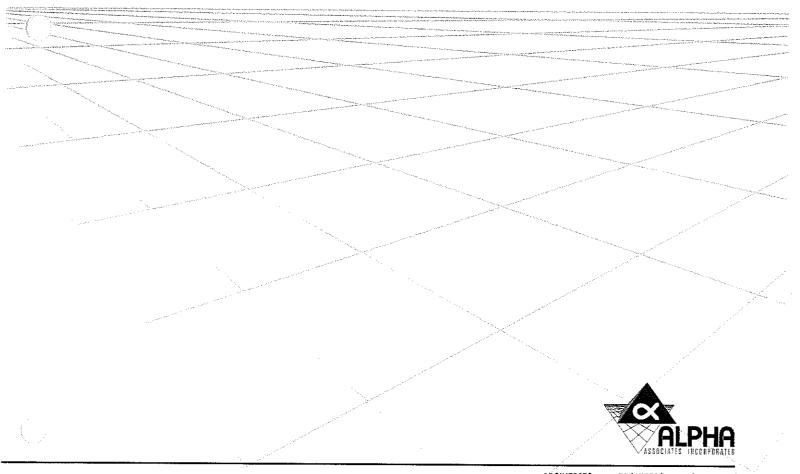


ALPHA ASSOCIATES INCORPORATED Firm Profile

Principals consistently update you on your project by using effective communication tools to manage the firm and projects. The project principal is involved with the project from the beginning to beyond completion

Alpha employs a staff of 40 Architects, Engineers, Surveyors and Administrative personnel Our staff is large enough to handle any size project, yet small enough to provide the personal detail and supervision to successfully complete your project Our staff is committed to working with an established project time frame and budget.

Alpha Associates, Incorporated is a professional organization dedicated to providing superior service to our clients. During our 40 years of experience, we have consistently provided quality, trouble-free projects that exceed the needs of our clients and serve them well throughout the life of the project.



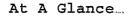
ARCHITECTURAL DESIGN 2008

Higher Education Case Studies

Project Description

West Virginia University - East Wing Addition/Renovation Morgantown, WV

The WVU Engineering Science Building East Wing Addition Renovation project was conceived to create a new primary entrance to the existing 228,000 square foot building on the Evansdale campus It consists of a 4-story addition as well as the conversion of an abandoned 3 ½ story boiler room into usable program space This 3 ½ story boiler space was subdivided into 3 floors supporting chemical-research labs and a tiered lecture hall



Client:

West Virginia University

Location: Morgantown WV

Completion Date: 2008

Size:

32.600 sq ft Addition 6,500 sq ff Renovation

Construction Cost: \$11 Million

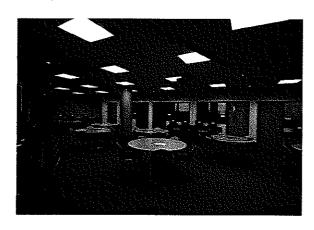


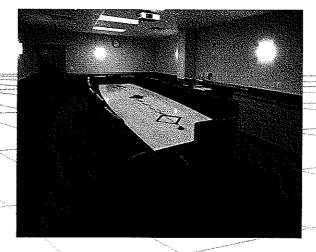


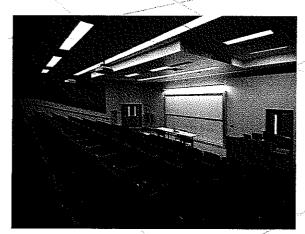


2008

West Virginia University - East Wing Addition/Renovation Morgantown, WV







At A Glance....

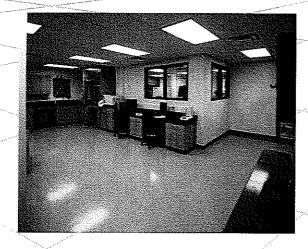


Location: Morgantown, WV

Completion Date: 2008

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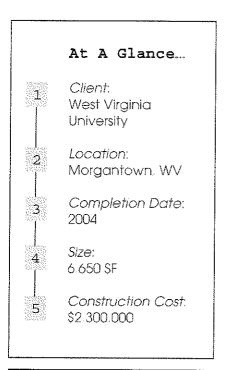


Higher Education Case Studies

Project Description

West Virginia University—Galli Laboratory Renovation Morgantown, WV

Alpha Associates, Incorporated provided design services for the renovation of the Galli Laboratory in the WVU Engineering Sciences Building. This renovation transformed an existing two story Hi-Bay Lab into two floors of research laboratories and a smaller Hi-Bay Lab for the College of Engineering. Design also included finish and casework alterations to adjacent spaces. Services included architectural design, civil and structural engineering and construction administration.





West Virginia University Mr. Eugene Cilento Dean 367A Mineral Resources Building Morgantown, WV 26507 304-293-4821



Galli Laboratory
LABORATORY DESIGN

Higher Education Case Studies

Project Description

West Virginia University—Galli Laboratory Renovation Morgantown, WV



At A Glance...

Client: 1 West Virginia University

Location: Morgantown, WV

> Completion Date: 2004

Size: 6.650 SF

Construction Cost. \$2.300.000



South Agricultural Sciences Building

PLANNING, DESIGN AND CONSTRUCTION PROJECT 2005

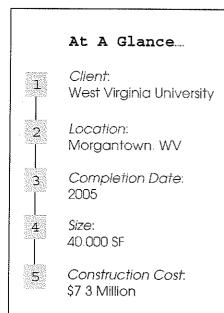
Higher Education Case Studies

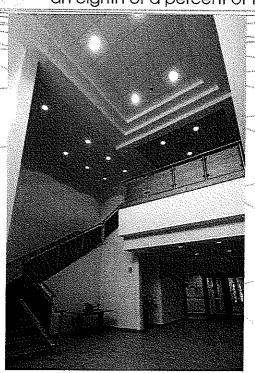
Project Description

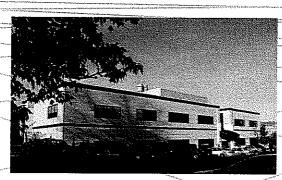
West Virginia University— South Agricultural Sciences Building Morgantown, WV

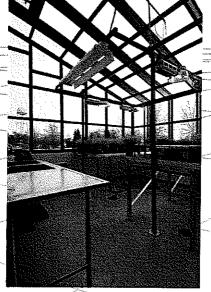
Alpha Associates, Incorporated provided architectural and engineering design services for a two-story addition to the south side of the Agricultural Sciences Building. The addition includes space for the Plant Pathology and Environment Microbiology Departments as well as research labs, lab support space, wet bench teaching labs, greenhouse, a 250 seat lecture hall and office space.

Alpha Associates has a cost estimating record that is very difficult to beat. This project came within less than an eighth of a percent of the low bid/contract amount.











Engineering Research Building

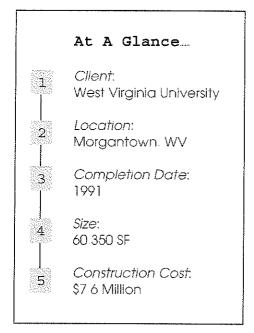
PLANNING DESIGN AND CONSTRUCTION PROJECT 1991

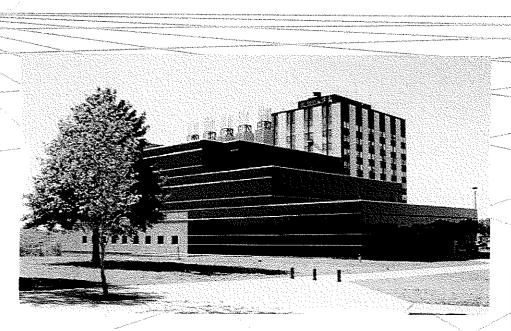
Higher Education Case Studies

Project Description

West Virginia University—Engineering Research Building Morgantown, WV

Alpha Associates, Incorporated provided planning, design and construction administration services for this \$7.6 million building completed in 1991, on the Evansdale Campus of West Virginia University. It is a four-story, 60,350 square foot building. This facility is used exclusively for engineering graduate level research space. Alpha Associates, Incorporated received a design award from the West Virginia Society of Architects for this project.











Chestnut Ridge Research Building 7th Floor Renovation

INTERIOR RENOVATION 2005

Higher Education Case Studies

Project Description

Chestnut Ridge Research Building 7th Floor Renovation Morgantown, WV

This project involved the build-out of office spaces on the seventh floor of the Chestnut Ridge Research Building Alpha's design staff transformed an unoccupied "shell" space into an open office area along with private offices and conference rooms. The open office space took advantage of the nearly 18' floor to floor height and kept the ceiling open to expose the structural and mechanical duct work





West Virginia University Mr. Robert C. Merow Campus Planner 979 Rawley Lane Morgantown, WV 26507 304-293-2875







Higher Education Case Studies

Project Description

West Virginia University—Engineering Sciences Building 10th Floor Renovation Morgantown, WV

The first phase of this project was a feasibility study that evaluated building and fire code issues related to the conversion of unfinished storage space into graduate student office and computer laboratory space

The Feasibility Study concluded that the gross area of renovation was 5,455 square feet in area and 3,780 square feet of usable program space that could be obtained.

At A Glance... Client: West Virginia University Location: Morgantown. WV Completion Date: 2005 Size: 5,455 SF Construction Cost: \$585,000



West Virginia University Mr. Ken Claudio 373A Mineral Resources Building Morgantown, WV 26506 304-293-5695





National Research Center for Coal and Energy

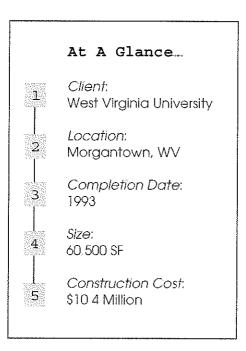
PLANNING DESIGN AND CONSTRUCTION PROJECT 1993

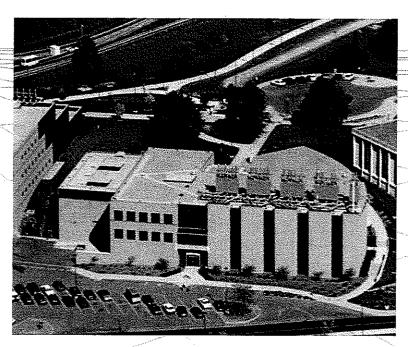
Higher Education Case Studies

Project Description

West Virginia University—National Research Center for Coal and Energy Morgantown, WV

Alpha Associates, Incorporated provided design and construction administration services for this \$10.4 million facility at West Virginia University. This 60,500 square foot building contains research/testing areas, offices, large assembly/conference rooms and meeting rooms. The laboratories are designed to be modular and are equipped for bench scale experiments.









ALPHA ASSOCIATES INCORPORATED Medical Case Studies

Alpha Associates, Incorporated has been involved in more than 250 projects at the former West Virginia University Medical Center These projects have totaled over 700,000 SF in planning, design and construction administration. Projects involving research space have included the following projects



BETTY PUSKAR BREAST CARE CENTER

This renovation project included interior design services for the 5,710 square foot state-of-the-art center. The Betty Puskar Breast Care Center offers diagnostic services; breast health education; psychological support services; and treatment services, including surgical procedures and radiation therapy

MARY BABB RANDOLPH CANCER RESEARCH AND TREATMENT CENTER

Site and structural engineering design, and construction field services for the 69,900 square foot cancer center. The center serves as a research, treatment and education facility.



SAME DAY CARE UNIT

Renovation of approximately 3,600 SF of space on the Second Floor of the former University Hospital. The existing space was converted into a unit for out patient surgery preparation and recovery consisting of: exam rooms, nurse office and stations, utility rooms and post-op recovery



Robert C. Byrd Health Sciences Center

ALPMA: ASSOCIATES INCORPORATED Medica: Case Studies

MASS SPECTROMETER AND LABORATORY RENOVATION

Design, engineering, and construction administration for extensive renovations which included a Spectrometer Lab, a volatile storage vault, and related labs, offices and conference rooms

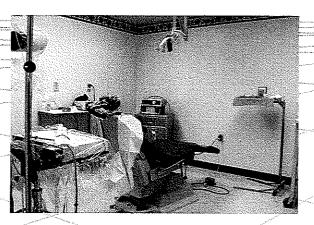


DENTAL CLINIC

Recently constructed, this new dental clinic adjoins the Family Medicine Clinic in the Robert C. Byrd Health Sciences Center at West Virginia University An important part of the "total family care" theme, the Family Dental Clinic is housed in approximately 9,300 SF of renovated space.

MAXILLOFACIAL UNIT

Architectural and engineering design for the renovation of 1,650 SF of existing space for the School of Dentistry.



PHYSIOLOGY LAB AND OFFICE RENOVATIONS

14,700 SF containing research laboratories, offices and a small electronics shop.

PHARMACOLOGY AND TOXICOLOGY RENOVATIONS

14,600 SF encompassed research and student laboratories, office and administrative areas.

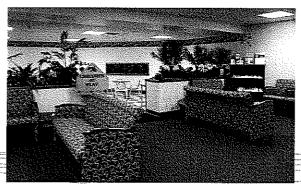
PLPH A ASSICULATES INCORPORATED Medical Case Studies

FAMILY CLINIC

Located on the First Floor of the Robert C Byrd Health Sciences Center at West Virginia University, this "state-of-the-art" teaching clinic is approximately 27,500 SF of renovated space and was opened in the Spring of 1999.

NEWBORN AND INTERMEDIATE NEWBORN INTENSIVE CARE UNITS

Design, engineering, and construction administration for an eight-bed NICU and a twelve-bed NICU Facilities included nurses stations, medi-prep area, soiled utility, and clean storage areas



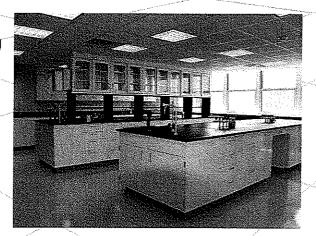
FAMILY PRACTICE Student Health, and Pulmonary Function Renovations

Design and construction administration for renovations to existing space of Family Practice Department and Clinic Renovation included classrooms with related examining and treatment rooms. Pulmonary laboratory space renovated for specialized rooms.

for exercise, blood gas and spirometry observation.—Student Health included examination and treatment facilities for students of the University

BIOCHEMISTRY DEPARTMENT RENOVATIONS

Complete departmental renovation including research laboratories and offices:





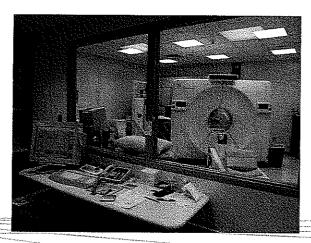
ALPHA RSSOCIATES. INCORPORATED Medical Case Studies

ORTHOPEDIC LABORATORY AND OFFICE RENOVATIONS

Design and construction administration for renovation of 4 laboratories and 7 offices.

MICRO-PATHOLOGY LABORATORIES

Design and construction administration of research laboratories and office suites for the following disciplines: Tumor Virology, Microbiology and Pathology.



EMI BODY SCANNER

Renovation of existing space to house body scanner including new electrical service, with temperature and humidity control for the computerized axial tomography system.

MRI SUPPORT FACILITY

Design of an 1800 square foot facility to provide support space for a transportable MRI unit. Support space includes dressing rooms, film processing, on-deck area, reception, waiting and doctor's area.



FUFANING DESIGN, AND CONSTRUCTION PROJECT 2008

Higher Education Case Studies

Project Description

WVU Potomac State College Connecting Link Keyser, WV

The main purpose of the project is to provide handicapped individuals access to two of the most utilized buildings on the campus: the Administration Building and Academy Hall An addition constructed between these two buildings with differing floor elevations allowed this to occur

Through the use of an elevator, multiple ramps, and new corridors, wheelchair access is available to all public areas of both buildings. Renovations of classrooms and toilet rooms were also made to meet ADA regulations.





Client: West Virginia University





Keyser WV



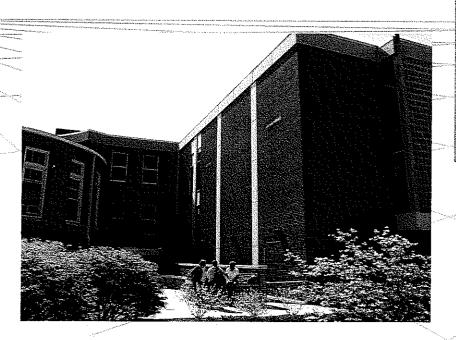


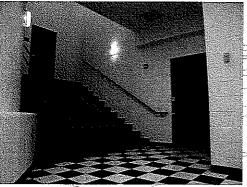
3

Size:

3,600 SF Addition 11,200 SF Renovation

Construction Cost: \$1.4 Million







JAMES A. DAVISON, AIA

ACE PRESIDENT FROM LECT

jdavison@alphaaec.com

SUMMARY

Mr. Davison is the Vice President of Alpha Associates, Inc. Mr. Davison joined the firm in November of 1977. He became a principal of the firm and Vice President in 1980. He has designed numerous structures, including research facilities, post offices, religious facilities, commercial and office buildings, and educational and medical facilities. The West Virginia Society of Architects has recognized Mr. Davison for his excellence in architecture with design awards for the Engineering Research Building at West Virginia University in Morgantown, WV, Wheeling College Chapel in Wheeling, WV, Morgantown High School Addition in Morgantown, WV and the KCAD Professional Office Building located in Martinsburg, WV.

PROFILE

Broad-based responsibilities in the following areas:

- Educational Architecture
- Medical Architecture
- Religious Architecture
- Quality Control
- Client Development
- New Business Development

PROFESSIONAL HIGHLIGHTS

Higher Educational Facilities:

- Agricultural Sciences Building Addition, West Virginia University; Morgantown, WV
- Prichard Hall Renovation, Fairmont State University; Fairmont, WV
- Engineering Science Building, East Wing Addition; Morgantown, WV
- Engineering Research Building; Morgantown, WV
- National Research Center for Goal and Energy, West Virginia University; Morgantown, WV
- Student Leader Housing, West Virginia University; Morgantown, WV
- Galli-Laboratory, West Virginia University; Morgantown, WV

K-12 Educational Facilities:

- Washington High School, Charles Town, WV
- Westside High School; Clearfork, WV
- Wyoming East High School; New Richmond, WV
- Lewis County High School; Weston, WV
- Morgantown High School Addition/Renovation; Morgantown, WV
- Ridgedale Elementary School Addition; Morgantown, WV

Medical Facilities:

- Ruby Memorial Hospital Emergency Addition; Morgantown, WV
- Sundale Nursing Home Renovation/Addition; Morgantown, WV



JAMES A. DAVISON, AIA

FICE PRESIDENT ARCHITECT

jdavison@alphaaec.com

Miscellaneous Architectural Design:

- Upshur County Senior Opportunity Center; Buckhannon, WV
- West Virginia Medal of Honor Recipients Memorial Plaza; Hazelton, WV
- Cumberland Valley Railroad Depot (KCAD Properties Professional Office);
 Martinsburg, WV
- Ronald McDonald House; Morgantown, WV
- Jenkins Ford; Buckhannon, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY: 1977 – Current Alpha Associates, Incorporated

1976 – 1977 Carl G. Baker, Architects

1974 – 1976 Architectural Firm of Laurie and Green

1966 – 1974 Michael S. Molnar Associates

EDUCATION

UNDERGRADUATE: Pennsylvania State University

Bachelor of Architecture: 1973

QUALIFICATIONS -

LICENSE: Registered Architect:

West Virginia, Pennsylvania, Maryland, Virginia-Ohio

NCARB Certified

AFFILIATIONS

PROFESSIONAL: American Institute of Architects

West Virginia Society of Architects

Council of Educational Facility Planners International

American Arbitration Association

Interfaith Forum on Religion, Art and Architecture

CIVIC: Main Street Morgantown

AWARDS

DESIGN AWARDS: West Virginia Society of Architects Design Awards:

KCAD Professional Office Building

Morgantown High School Engineering Research Building Wheeling College Chapel



CHARLES B. LUTTRELL, PE

PRINCIPAL FROFESSIONAL ENGINEER -STRUCTURES

cluttrell@alphaaec.com

SUMMARY

Mr. Luttrell has worked with Alpha Associates, Inc. since 1996. He is the chief structural engineer for Alpha 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 West Virginia University Constructed Facilities Center. Since coming to Alpha, Mr. Luttrell has had a significant involvement in the effort to begin utilizing modern composite materials in practical bridge applications. Two recent Alpha bridge projects have been designed using these innovative materials.

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:

- Hazel Ruby McQuain Amphitheater Roof, Morgantown, WV
- West Buckeye Bridge, Core, WV
- South Jefferson High School, Charles Town, WV
- WVU Coliseum Asbestos Abatement Project (Scaffolding Design and Dome Structural Inspection); Morgantown, WV
- Morgantown Airport Air Rescue and Firefighting Building; Morgantown, WV
- WVU Coliseum Scoreboard Hoist Project; Morgantown, WV

PROJECT MANAGER:

Bridge Design:

- Blackshere Bridge; Mannington, WV
- South High Street Bridge; Morgantown, WV
- Market Street Bridge; Wheeling, WV
- West Buckeye Bridge; Core, WV
- Simpson Creek Covered Bridge; Marion County, WV
- Fletcher Covered Bridge; Marion County, WV
- Elkins Bypass, Spur A Bridge; Elkins, WV



CHARLES B. LUTTRELL. PE

PRINCIPAL PROFESSIONAL ENGINEER -STRUCTURES

cluttrell@alphaaec.com

EMPLOYMENT HISTORY

PRIVATE INDUSTRY: 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

GRADUATE: West Virginia University

MS - Structural Engineering; 1995

UNDERGRADUATE: West Virginia University

BS - Civil Engineering; 1993

QUALIFICATIONS

LICENSE: Professional Engineer:

West Virginia, Maryland

AFFILIATIONS

PROFESSIONAL: West Virginia Society of Professional Engineers

National Society of Professional Engineers

Chi Epsilon; Member

American Concrete Institute; Member
Structural Engineering Certification Board

RESEARCH EXPERIENCE

STRUCTURAL: Cold Formed Steel Deck Research

• Fastener failures

Edge conditions/failures

Buttoned overlap shear failures

Composite Cold Formed Steel and Concrete Deck Research

Line load behavior/failures

Concentrated load behavior/failures

Web crippling

Punch failures



CHARLES B. BRANCH, PE
PRINCIPAL
CIVIL ENGINEER
cbranch@alphaaec.com

SUMMARY

As Chief Engineer for site development and planning projects, Mr. Branch is a vital part of the design process at Alpha. His involvement spans from strictly civil engineering projects, to the design of large scale educational projects and medical facilities. Mr. Branch acts as peer review for young engineers in the firm on issues ranging from storm water management to site design. Mr. Branch is also involved in commercial and residential development design, roadway and bridge design and utilities layout.

PROFILE

Broad-based responsibilities in the following areas:

- Highway Design
- Municipal Engineering
- Wastewater Collection
- Storm Sewer/Storm Water Management Design
- Site Engineering
- Project Management

PROFESSIONAL HIGHLIGHTS

Highway Design:

- Blackshere Bridge Mannington, WV
- I-68 Welcome Center Hazelton, WV
- I-77 Information Center Williamstown, WV
- Lewis County High School Bridge Weston, WV
- Wyoming County Route 10 Relocation Wyoming County, WV

Commercial Site Plans:

- West Virginia High Technology Consortium Fairmont, WV
- Southern States—Morgantown, WV
- Doan Ford Belmont, OH
- WVU Health Sciences Center Eastern Division Martinsburg, WV
- Residence Inn Morgantown, WV

Educational Projects:

- Anna Jarvis Elementary School Grafton, WV
- Lewis County High School Weston, WV
- Wyoming County East High School Wyoming County, WV
- Wyoming County Westside High School Wyoming County, WV
- South Jefferson High School Charles Town, WV



CHARLES B. BRANCH, PE

PRINCIPAL CIVIL ENGINEER

cbranch@alphaaec.com

EMPLOYMENT HISTORY

PRIVATE INDUSTRY: 1992 – Present Alpha Associates, Incorporated

1988 – 1992 Reimer, Muegge, & Associates, Inc.

EDUCATION

UNDERGRADUATE: Fairmont State College

BS - Architectural Engineering Technology 1988

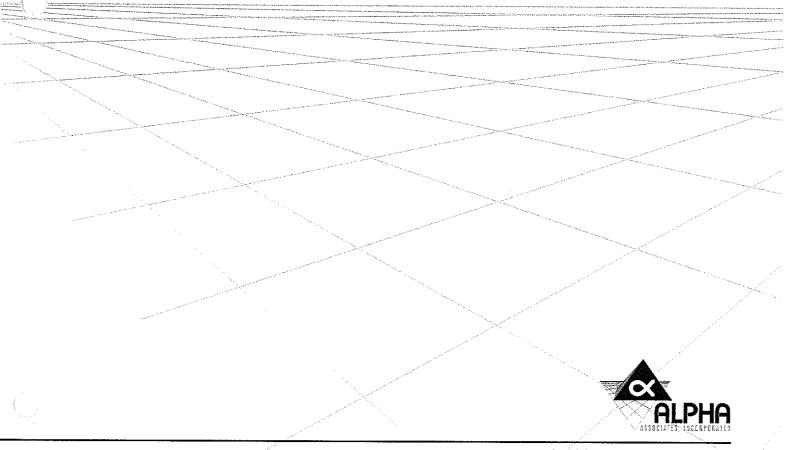
West Virginia University

BS - Civil Engineering 2000

QUALIFICATIONS

LICENSE: Professional Engineer

West Virginia



MATTHEW S. BREAKEY, AIA

PRINCIPAL ARCHITECT

mbreakey@alphaaec.com

SUMMARY

Mr. Breakey has gained experience through working as a Project Manager on major capital construction projects throughout West Virginia. As a key player in the Open End Contract with West Virginia University, Mr. Breakey deals with projects from schematic design to project close out.

PROFILE

Broad-based responsibilities in the following areas:

- Architectural Design
- Construction Administration
- Contract Negotiations

PROFESSIONAL HIGHLIGHTS

PROJECT MANAGER:

Higher Education Projects:

- WVU Engineering East Wing Renovation/Addition; Morgantown, WV
- WVU Engineering Sciences Building 10th Floor Renovation; Morgantown, WV
- WVU Engineering-Science Building Nano/Microtechnology Lab; Morgantown, WV
- WVU Alfred F. Galli Laboratory Renovations; Morgantown, WV

K-12 Education Projects:

- South Jefferson High School, Charles Town, WV
- Pocahontas-County High School Science Wing Renovation/Addition; Marlinton, WV
- Buckhannon Upshur Middle School Roof Replacement; Buckhannon, WV
- Buckhannon Upshur Middle School HVAC Upgrades; Buckhannon, WV.
- Slanesville Elementary School Addition; Hampshire County, WV
- Petersburg High School Science Lab Renovation; Petersburg, WV

ARCHITECTURAL DESIGN:

- Clear Mountain Bank, Oakland Branch; Oakland, MD
- Fairmont Federal Credit Union, Charles Pointe Branch; Bridgeport, WV
- WVU Engineering Sciences Building East Wing Addition; Morgantown, WV
- Robert C. Byrd Health Sciences Center SRP Lab Renovation; Morgantown, WV
- Upshur County Senior Opportunity Center Renovation and Addition; Buckhannon, WV
- Summersville Municipal Building; Summersville, WV
- Hart Field Air Rescue Fire Fighting Building; Morgantown, WV
- Bruceton Bank, Sabraton Branch; Morgantown, WV
- Camp Dawson Billeting Facilities; Kingwood, WV



MATTHEW S. BREAKEY, AIA

PRINCIP : L
* RCHITECT

mbreakey@alphaaec.com

EMPLOYMENT HISTORY

PRIVATE INDUSTRY:

1998 - Current

Alpha Associates, Incorporated

1994 – 1998

West Virginia University Physical Plant

Engineering and Construction

1992 - 1994

West Virginia University Facilities Planning

Management

EDUCATION

UNDERGRADUATE:

Pennsylvania State University

Bachelor of Architecture; 1992

Bachelor of Science in Architecture; 1991

QUALIFICATIONS

LICENSE:

Registered Architect:

West Virginia

Maryland

NCARB Certified

AFFILIATIONS

PROFESSIONAL:

American Institute of Architects

West Virginia Society of Architects

The Council of Educational Facility Planner International

CIVIC:

Main Street Morgantown Board of Directors; Member

Main Street Morgantown Design Committee; Chairman

Chestnut Ridge Park Board; President



REBECCA J. KEY, AIA, NCIDQ

ASSOCIATE

rkey@alphaaec.com

SUMMARY

Ms. Key has worked in the architectural field for 30 years. Ms. Key is Project Architect/Manager for numerous architectural designs at Alpha Associates, Inc.. She is involved from the programmatic stages and schematic designs all the way through construction documents to construction administration.

Prior to joining Alpha, Ms. Key initiated and developed her own architectural and interior design business. The 16 years she devoted to her own firm resulted in projects ranging in size from 450 to over 40,000 square feet of space and located in 20 states across the country.

PROFILE

Broad-based responsibilities in the following areas:

- Architecture
- Interior Design
- Interior Space Planning
- Historic Renovation

PROFESSIONAL HIGHLIGHTS

ALPHA ASSOCIATES

Educational Facilities:

- Washington High School Interiors Package; Charles Town, WV
- WVU South Agricultural Sciences; Morgantown, WV
- Prichard Hall Renovation; Fairmont State College; Fairmont, WV
- WVU Boreman Bistro Dining/Kitchen; Morgantown, WV

Industrial Facilities:

- Hart Field Airport Maintenance Building; Morgantown, WV
- Norwood Fire Station; Morgantown, WV
- FMW Composites, Inc.; Bridgeport, WV
- Hart Field Terminal Renovation; Morgantown, WV

Medical Facilities:

- Ruby Memorial Hospital Emergency Addition; Morgantown, WV
- BSGG Dental Complex; Morgantown, WV



REBECCA J. KEY, AIA, NCIDQ

ASSOCIATE

rkey@alphaaec.com

Miscellaneous Architectural Design:

- West Virginia Medal of Honor Recipients Plaza; Hazelton, WV
- Hazel Ruby McQuain Riverfront Park Amphitheater Roof; Morgantown, WV

Municipal Building; Whitehall, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY: 2000 - Current Alpha Associates, Incorporated

1983 – 1999 Environmental Planners and Associates, LTD;

President

1978 – 1983 Webster Clothes; Director of Store Planning

EDUCATION

UNDERGRADUATE: University of Maryland

Bachelor of Architecture; 1977

POST GRADUATE: Maryland Institute College of Art

Coursework in Furniture Design; 1986-1987

QUALIFICATIONS

LICENSE: Registered Architect

West Virginia, Maryland, Washington DC, New York,

Virginia, Pennsylvania

National Council of Interior Design Qualifications Certificate

Holder

AFFILIATIONS

PROFESSIONAL: American Institute of Architects, Member

AIA Livable Communities; Board Member

CIVIC: Fairmont, WV BOCA Board of Appeal; Board Member

THOMAS PRITTS, AIA, LEED-AP

ARCHITECT

tpritts@alphaaec.com

SUMMARY

Mr. Pritts joined the Alpha Associates staff as an intern architect in the Morgantown office in 2004. In 2008 he became a Registered Architect and received his Leed Certification. Mr. Pritts has become a valuable asset to Alpha Associates. Since arriving at Alpha, he has gained experience in educational design and programmatic development.

PROFILE

Broad-based responsibilities in the following areas:

- Educational Design
- Programmatic Development
- Civic Design
- Commercial Design
- Green Building Design

PROFESSIONAL HIGHLIGHTS

ALPHA ASSOCIATES

Architectural Design:

- Potomac State College, ADA Connector Link; Keyser, WV
- Fairmont Federal Credit Union, Charles Pointe; Bridgeport, WV
- Washington High School; Charles Town, WV
- WVU Engineering Sciences, East Wing Addition; Morgantown, WV
- Ridgeley Community Center; Ridgeley, WV
- Jefferson County Emergency Services Agency; Ranson, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY:

2004 - Current

Alpha Associates, Incorporated

2003 - 2004

Marshall Craft Associates, Baltimore, MD

EDUCATION

UNDERGRADUATE:

Virginia Tech

Bachelor of Architecture; 2004



THOMAS PRITTS, AIA, LEED-AP

ARCHITECT

tpritts@alphaaec.com

QUALIFICATIONS

LICENSE/CERTIFICATIONS: Registered Architect:

West Virginia, Maryland

National Council of Architectural Registration Boards Certificate Leadership in Energy and Environmental Design Accredited

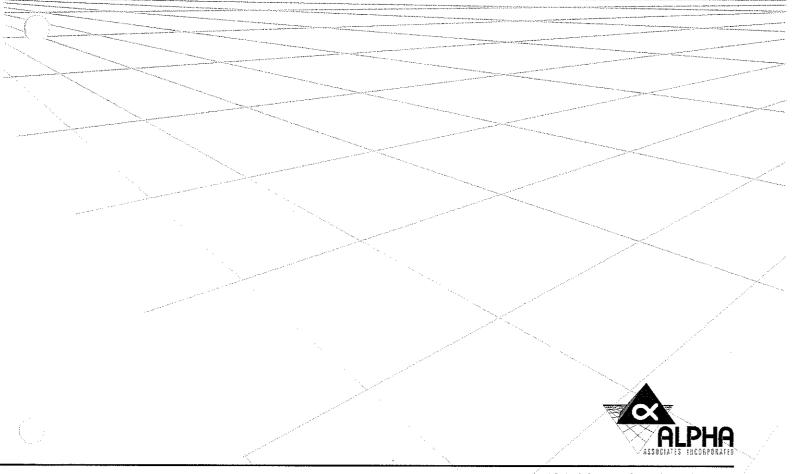
Professional

AFFILIATIONS

PROFESSIONAL: Ala Member

USGBC - US Green Building Council

AUGI - Autodesk User Group International



W. JAMES WOLFE

Associate
Information
Technology Manager
jwolfe@alphaaec.com

SUMMARY

Mr. Wolfe graduated from Penn State University with an Associates Degree in Architectural Engineering Technology. Mr. Wolfe has been employed by Alpha Associates, Inc. as an Architectural Technician since 1992. He has worked on many Architectural and Structural Projects including Lewis County High School, the Terminal Renovations for the Morgantown Airport, the Betty Puskar Breast Care Center, Wyoming County High School, and numerous projects at Robert C. Byrd Health Sciences Center. His duties also include maintaining the Office Network and Computer Systems.

Mr. Wolfe is a Pennsylvania and NPQS Certified Fire Fighter I & II; Fire Instructor I; Rescue Technician-General, Vehicle and Machinery and a Pennsylvania State Licensed Paramedic. Mr. Wolfe is actively involved with Farmington Volunteer Fire Department.

PROFILE

Broad-based responsibilities in the following areas:

- Health Care Design
- Health Care Engineering
- Office Technology
- Structural Detailing

PROFESSIONAL HIGHLIGHTS

PRODUCTION/CADD:

- West Virginia University Robert C. Byrd Health Sciences Center projects including
 Human Resources and Financial Aid, Betty Puskar Breast Care Center, Pediatric
 Dentistry Renovations, Family Dentistry Clinic, Medical Group Practice Department
 Office, Pathology Labs, Family Medicine Clinic, Medical Research Imaging Center,
 Department of Dentistry Student Clinic Renovations (Phase I & II), Blanchette
 Rockefeller Neurosciences Center (Phase I), Transgenic Core Facility, Optical Image
 Lab, Main Dental Clinic Renovations, Department of Pediatrics, SRP Lab Renovations,
 Orthopedics Lab Renovations, Medical Simulation Center; Morgantown, WV
- Aurora Elementary School; Preston County, WV
- GE Specialty Chemical Rail Containment; Morgantown, WV
- Hart Field Terminal Building Renovations: Morgantown, WV
- Anna Jarvis Elementary School; Grafton, WV
- Mon-Point Continuous Care; Morgantown, WV
- Lewis County High School; Weston, WV
- Cabin Creek Medical Center; Cabin Creek, WV



W. JAMES WOLFE

Associate Information Technology Manager jwolfe@alphagec.com

- Louis A. Johnson VA Medical Center Renovation projects including Outpatient Support, 2nd Floor CT Renovations, 12 Bed Residential Psych Unit, Primary Care Facility Phase I and II, Third, Fourth, and Fifth Floor Renovation; Clarksburg WV
- GE Specialty Chemical Drum and Tote Warehouse; Morgantown, WV
- Wyoming County East High School; Wyoming County, WV
- Wyoming County Westside High School; Wyoming County, WV
- West Virginia Medal of Honor Recipients Plaza; Hazelton, WV
- West Virginia Division of Highways I-77 Welcome Center; Williamstown, WV
- WVU HSC Eastern Division; Martinsburg, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY: 1992 – Current Alpha Associates, Incorporated

1992 Aaron Industries, Inc. 1990 – 1991 G.A. Herron Associates

1989 – 1990 Michael S. Molnar Associates

EDUCATION

UNDERGRADUATE: Pennsylvania State University

AS – Building Energy Systems Technology; 1988

Pennsylvania State University

AS - Architectural Engineering Technology; 1987

AFFILIATIONS

CIVIC: NFPA: Member

Fayette County Fireman's Association; President

Farmington VFD; Firefighter/Paramedic

PA State Fire Academy; Local Level Suppression Instructor

American Heart Association; BLS & First Aid Instructor Keystone Chapter Fire Service Instructors; Member



INTERIOR DESIGNER

SUMMARY

Ms. Simmons has worked as an Architectural team member and directly with end users. The scope of her work involves a wide range of interior design and includes corporate, educational, churches, hospitals, dental and health care projects. The scope of Ms. Simmons' services includes input at the Schematic Design Phase (Plan Layout) as well as selection of colors, finishes, furniture, and design of custom built-in casework. She can also coordinate purchase and installation of furnishings and accessories

PROFILE

Broad-based responsibilities in the following areas:

- Interior Design
- Interior Space Planning

PROFESSIONAL HIGHLIGHTS

ALPHA ASSOCIATES

Educational Facilities:

- Lewis County High School
- Aurora Elementary
- Morgantown High School
- Anna Jarvis Elementary
- WVU Student Leader Housing
- Grafton High School
- Buchannon-Upshur Middle School

Commercial Facilities:

- Clear Mountain Bank Multiple Branches
- BC Bank
- Fairmont Federal Credit Union

Medical Facilities:

- Health Sciences Center Family Practice
- Physicians Office Center Multiple Projects
- Health Sciences Center Central Administrative Department
- Health Sciences Center School of Medicine
- Health Sciences Center School of Pharmacy
- WVU Eastern Division



Miscellaneous Architectural Design:

- Wassick Novelty Company
- Hart Field Terminal
- Preston County Sheltered Workshop
- Summersville Municipal Building
- Morgantown Dental Group
- Avery United Methodist Church

EMPLOYMENT HISTORY

PRIVATE INDUSTRY:

1994 - Current

Alpha Associates, Incorporated

1991-1994

Keystate, Incorporated

1989-1991

Herman Miller

EDUCATION

UNDERGRADUATE: Florida State University

Bachelor of Interior Design: 1989

CARPHO



AGRICULTURAL SCIENCE BUILDING

H.F. Lenz Company provided mechanical and electrical design services for a two-story, 38,000 sq.ft. addition to the Agriculture Science Building at West Virginia University. The new space includes research and teaching laboratories; a greenhouse; office space for faculty; staff and graduate assistants; a state-of-the-art tiered lecture hall that will seat 250; ADA accessible men's and women's restrooms; and unfinished shell space on the second floor that will be used for future growth and expansion.

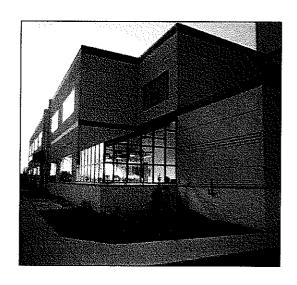
H F. Lenz Company also provided Commissioning services for a project involving the relocation of Plant Pathology.

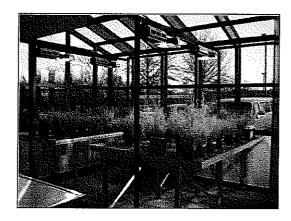
Project Amenities Include

- Eight Research Laboratories
- Environmental Microbiology Lab
- Plant Pathology Lab
- Constant temperature rooms
- · Radioactive work room
- Prep lab/specimen storage room
- Greenhouse
- · Faculty offices
- Graduate student offices
- Seminar/lecture room
- · Library/conference room
- · Equipment storage rooms

Systems/Components Commissioned

- · Laboratory exhaust and hood systems
- · Laboratory vacuum
- · Laboratory/process gases
- Constant volume terminal boxes
- · Air handling units
- AHU dampers, smoke detector interface and temperature control
- · Air cooled chiller
- Chilled water pumps and piping system
- Automatic Temperature Control systemverification of points and control algorithms
- Steam to water heat exchangers
- Hot water heating system, reheat controls, space temperatures







Under a separate contract, H.F. Lenz Company provided engineering services for a greenhouse relocation study for West Virginia University.



West Virginia University Morgantown, West Virginia

ENGINEERING SCIENCES BUILDING RENOVATION

H F. Lenz Company provided mechanical, electrical, plumbing, and fire protection engineering services for the renovations to the basement level of the Engineering Sciences Building. The renovated area consists of approximately 24,000 sq.ft., and houses mixed offices, wet and dry laboratories, classrooms and graduate study spaces.

The project involves removing the existing mechanical system and replacing with a new system capable of providing the heating, ventilation and air conditioning requirements of the spaces. A variable flow refrigerant cooling system is being utilized for five of the laboratories with intensive cooling loads. As a result of the mechanical renovations, the project also includes the removal & replacement of ceilings, light fixtures and other systems affected, along with general aesthetic upgrades.

Construction is being phased to allow partial occupancy of the building Construction on the \$2 million renovation project is scheduled to be completed in August 2009.



LABORATORY AND RESEARCH FACILITY EXPERIENCE

The HF. Lenz Company has expertise in the design of specialized mechanical and electrical systems for strictly controlled laboratory and research environments. The design of laboratories requires special consideration involving multiple zoning for flexibility and pressurization control. Our designs also consider energy conserving features including variable air volume systems to minimize outside air while maintaining proper air flows for indoor air quality and fume hood air flow requirements within prescribed safety limits.



Our projects have included chemical, biological, and analytical laboratories; optical research laboratories; environmental testing chambers; radiation cells; carcinogenic research; coatings and resins research; film and surface material research; chemical vapor deposition; laser diagnostic laboratories; and animal research facilities. These projects have included new facilities as well as renovations of existing systems where phased construction of occupied facilities is often required.



We have been a proud member of the United States Green Building Council since 2000, and currently have 14 LEED™ Accredited Professionals on staff. Our engineers employ energy efficient and sustainable design technology on all designs whenever possible. In fact, H.F. Lenz Company, in conjunction with Carnegie Mellon University, recently utilized the EPA Labs21 Program principles for the Phase II renovation of Doherty Hall, a 217,000 sq.ft. building housing three floors of chemistry laboratories. This project was also recently registered for LEED™ Certification.

LABORATORY BIOSAFETY LEVELS EXPERIENCE

H. F. Lenz Company has a substantial amount of experience with laboratories which require a Biosafety Level (BSL) rating The Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH) established criteria for four levels of containment called BSLs These criteria consist of combinations of laboratory practices and techniques, safety equipment, and laboratory facilities. Each combination is specifically appropriate for the operations performed, biological matter to be used, and the laboratory function or activity

The H.F. Lenz Company provided engineering services for a new Animal Lab Research Facility, at the Children's National Medical Center in Washington, D.C. The new laboratory included an operating room, holding rooms, quarantine rooms, steam sterilizer and cage wash space, procedure room, and support spaces. A locker room with an air shower, as well as an ante room, separated the critical areas. Most of the areas are rated BSL-1 or BSL-2. Many of the spaces contain biosafety hoods.

The H.F. Lenz Company also provided engineering services for the renovation of the Third Floor Research Laboratory for the Veteran's Affairs Medical Center in Philadelphia, PA. The entire third floor was renovated into distinct and separate labs for BSL-1, BSL-2, and BSL-3 research. The lab systems were designed for maximum flexibility so that simple changes can be made as research is completed and new projects are brought in. The area contains approximately 15 biosafety or fume hoods for future space for additional hoods, tissue culture labs, autoclave, microscopy, and large rooms for refrigerators and freezers.



RELEVANT PROJECT EXPERIENCE

CARNEGIE MELLON UNIVERSITY PROJECTS:

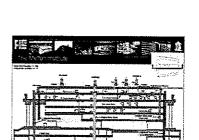
Mellon Institute - Various Projects

 Reference:
 Max Dorosa
 412/268-8936

 Marty Altschul, P.E.
 412/268-2529

The Mellon Institute is a part of the Mellon College of Sciences (MCS) MCS consists of the Departments of Biological Sciences, Chemistry, Mathematical Sciences, and Physics and serves as home to a number of interdisciplinary

research centers. Among the college research thrusts areas are biosensors, proteomics, bioimaging, tissue engineering, neurobiology, bioinformatics, computational biology and green chemistry. Continually since 1999, H.F. Lenz Company has provided engineering services for numerous projects at Mellon Institute, and below is an overview of this project experience



Master Plan - 2005

The H.F. Lenz Company provided professional engineering services for the master plan of the 350,000 sq.ft. building, which houses over 500 researchers and scientists and over 25 laboratories which are served by approximately 160 fume hoods. The master planning challenge, with regard to the mechanical and electrical systems infrastructure, was to provide state-of-the-art systems within the fabric of an historic building, with low floor-to-floor heights, in a phased manner while research laboratories remained in operation. Fire and life safety improvements were also addressed.

HVAC Infrastructure Analysis - 2004

The H.F. Lenz Company provided professional engineering services for the analysis of the HVAC infrastructure components associated with the approximately 160 existing fume hoods installed within the Mellon Institute building. A variety of air handling supply systems and approximately 75 exhaust fans serve these fume hoods.

The project included:

- Field verification of actual components installed Components included ductwork, fans, controls, fume hoods, and air supply systems
- Single-line schematic drawings, indicating installed condition were prepared for each independent sub-system within the building, serving fume hoods
- The laboratory rooms and their entranceways and exits were analyzed with regard to HVAC supply and exhaust air (pressurization relationships)
- Analysis were performed of the critical components (fume hood face velocity, exhaust air discharge, ductwork integrity, age, condition, air balance, etc.)
- A deficiency and recommendation matrix was prepared for each independent HVAC sub-system serving fume hoods
- Third party testing in accordance with ASHRAE 110
- Estimated construction costs for recommended corrections were prepared.









Laboratory Mechanical and Electrical upgrade projects for Mellon Institute:

Urban Lab - 2006 Area: 1800 sq.ft.

Description of Lab: Biology Lab

HVAC system description: Supply air system from an existing 100% outside air system and a new exhaust fan was provided. The space was provided with a laboratory control system that maintained space temperature and space pressurization.

Linstedt Lab - 2007 Area: 1400 sq.ft.

Description of Lab: Biology Lab

HVAC system description: Supply air system from an existing air system that was converted to 100% outside air and a new exhaust fan was provided. The space was provided with a laboratory control system that maintained space temperature and space pressurization.

Hackney Lab - 2006 Area: 1600 sq.ft.

Description of Lab: Biology Lab

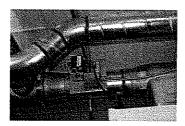
HVAC system description: We provided a new 100% outside air handling unit to serve this lab. The space was exhausted via an existing exhaust system. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control



Das Lab - 2007 Area: 1400 sq ft

Description of Lab: Chemistry Lab

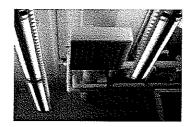
HVAC system description: The supply air system was connected to an existing 100% outside air system. A new 20,000 CFM exhaust fan system was provided which exhausted this lab, as well as several other labs in the same area of the building. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control



McCullough Lab - 2007 Area: 1200 sq.ft.

Description of Lab: Biology Lab

HVAC system description: Supply air system from an existing 100% outside air system. The space was exhausted via a new exhaust fan system provided with the 2007 Das Lab project. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control



MacBeth Lab - 2007 Area: 4000 sq ft

Description of Lab: Biology Lab, and Printing Graphics Area renovation

HVAC system description: The supply air system was connected to an existing 100% outside air system. The space was exhausted via an existing exhaust fan system. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.



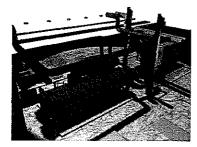
Hinman Lab - 2006 Area: 1900 sq.ft.

Description of Lab: Biology Lab

HVAC system description: Two new 10,000 CFM air handling units were connected in parallel to serve the Hinman lab, the Das lab, the McCullough lab, as well as several other labs in the same area of the building. The space was exhausted via a new exhaust fan system provided with the 2007 Das Lab project. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.

Mellon Institute Chiller Plant project - 2004

H F. Lenz Company was hired to provide mechanical and electrical engineering services to upgrade the chilled water system for the Mellon Institute building. Due to the age of the existing systems and the increased cooling and exhaust loads, as well as future planning, the existing chilled water system within the building needed to be replaced. We first studied the existing chilled water systems and proposed eight different options. These options varied from adding 1,200 tons of mechanical chiller capacity, to utilizing steam absorption chillers, to maintaining the same capacity as existing but utilizing an ice storage system to peak-shave during periods of



high demand. The option selected involved removing an existing 180-ton chiller and replacing it with a new 400-ton unit, with provisions for future upgrades as well. One issue that made this option difficult was that the chiller had to be disassembled and lowered thirty-feet below grade through an equipment shaft and reassembled in place. This option also required a new cooling tower be installed on the roof Additionally, the automatic temperature controls for the chilled water plant and the pumping system were upgraded to facilitate the new scheme and to handle the additional capacity. The chiller was pre-purchased in order to allow the project to be constructed within the allotted time period

Mellon Institute Electrical Upgrades - 2004

The H.F. Lenz Company was hired by Carnegie Mellon University to provide electrical engineering services to design an upgraded electrical system for the Mellon Institute Building. Due to the age of the existing systems and the increased cooling and exhaust loads, as well as future planning, the existing 208V electrical systems within the building needing replaced.

The electrical risers and incoming switchboard in the building were also in need of replacement, since they were mostly original to the building. The existing 208V, three-phase service entrance switchboard was composed of fused, open knife switches and was obsolete. The switchboard was thus replaced with a new 4,000A, three-phase, 208V switchboard which then fed new distribution risers up through the building. In addition, a new electrical service feed and automatic transfer system was provided. This greatly improved electrical reliability for the entire building.

Additional projects in Mellon Institute:

- Server Room 411 HVAC system study Fourth Floor
- Room 337 Rack Cooling and power Third Floor
- Fire Alarm Replacement Building Wide
- Chilled water Risers Building Wide
- 80 psi PRV Building Wide
- Steam Riser Study and condensate return line replacement Building Wide
- Temporary Boiler study Building Wide
- Emergency and Back-up Power upgrade Building Wide





Doherty Hall Phase II Renovations - 2007

Reference: Edward Hydzik 412/268-8516

Marty Altschul, P.E. 412/268-2529

A major portion of the Doherty Hall Phase 2 renovations was the Chemical Engineering Department which includes laboratories, offices, and classrooms. The H.F. Lenz Company utilized the principles of the EPA Labs21 program in the design of these renovations to provide a sustainable, high performance, energy efficient laboratory.

The Doherty Hall Phase 2 project included the renovation of the eastern portion of the building. Chemistry laboratories on three floors were relocated, freeing up the floors for new use - one floor of classroom space and two floors of laboratories for Chemical Engineering Mechanical, life safety, and accessibility upgrades were performed.

Most of the existing systems were removed and replaced. Construction was phased and since the building was partially occupied during construction, each of the MEP systems were extended with the renovation. Temporary cross-connects were required to maintain services throughout the construction period.

The designs for the Chemical Engineering Laboratories addressed the following issues:

- Fume hoods with face velocity control (primary containment)
- Space temperature and pressurization control (secondary containment)
- Proper discharge of exhaust from building to avoid re-entrainment
- Laboratory services such as gas, air, vacuum, deionized water, etc
- One of the single greatest challenges in working in an historic structure is the integration of modern mechanical and electrical systems. The MEP systems serving the Phase 2 renovation were brought up to the latest standards and applicable code requirements.

The following is a partial list of the code challenges:

- Fire alarm system
- High-rise requirements including stairwell pressurization, voice annunciation, and a standpipe system with adequate pressure
- Emergency power of life safety equipment and systems

The following "green building" strategies were utilized:



- Optimizing the building's thermal envelope
- Utilizing energy-conserving system components
- Reusing existing mechanical and electrical equipment where possible
- Specifying equipment and materials that did not use ozone-depleting chemicals, did not off-gas harmful contaminants, and were manufactured locally
- Specifying water-conserving plumbing fixtures
- Providing an HVAC design that prevents Indoor Air Quality (IAQ) problems within the building
- Commissioning

The estimated cost of the renovation program was \$25 million This project has been registered for LEED™ Certification.









Wean Hall

Reference: Linda McFadden, P.E. 412/268-6974

Marty Altschul, P.E. 412/268-2529

H.F. Lenz Company provided engineering services for various mechanical and electrical infrastructure upgrade projects including: chilled water plant upgrades, cooling tower replacements, fire alarm replacement, fume hood and exhaust system study, main campus switchgear protective relaying upgrades. Our recent project experience in Wean Hall includes:

Losche Lab - 2006 Area: 1000 sq.ft.

Description of Lab: Physics Lab

HVAC system description: The supply air system was connected to an existing 100% outside air system. The supply air had HEPA filters to provide filtered air to the space. The space was exhausted via an existing exhaust fan system. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.

Woods Lab -2006 Area: 1000 sq ft

Lab: Physics Lab (BSL 2)

HVAC system description: The supply air to an existing 100% outside air system. The supply air had HEPA filters to provide filtered air to the space. The space was exhausted via an existing exhaust fan system. The space was provided with a laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.

Bockstaller Lab - 2005

Area: 1100 sq.ft.

Description of Lab: Materials Science Lab

HVAC system description: The supply air system was connected to an existing 100% outside air system. The space was exhausted via an existing exhaust fan system. A laboratory control system was provided that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.

Islam Lab - 2005 Area: 800 sq.ft

Description of Lab: Chemical Engineering/Optics Lab

HVAC system description: The supply air system was connected to an existing 100% outside air system. The space was exhausted via an existing exhaust fan system. A laboratory control system that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control.

Roberts Hall
Davis Lab - 2006
Area: 1000 sq.ft.

Description of Lab: Materials Science Lab

HVAC system description: The supply air was connected to an existing 100% outside air system. The space was exhausted via an existing exhaust fan system. A laboratory control system was provided that maintained space temperature and space pressurization. Several fume hoods were provided with fume hood face velocity control. This lab included several local exhaust sources including gas cabinets.









ADDITIONAL RELEVANT EXPERIENCE:

University of Pittsburgh Life Sciences Complex Renovations Pittsburgh, Pennsylvania

H.F. Lenz Company is providing mechanical, electrical, plumbing, and fire protection engineering services for various renovations and building system replacements to address building layout and operational requirements for the Life Sciences Complex. The complex consists of four buildings, Clapp Hall, Langley Hall, Crawford Hall, and the newly constructed Annex Building. The complex houses the departments of biosciences and neuroscience and encompasses various research labs, vivaria, instructional spaces, classrooms, and offices. The project includes a thorough, detailed analysis of current and projected needs by functional area, departmental requirements, and programmic needs.

Construction Cost:

\$72,500,000 (estimate)

Services:

Mechanical, electrical, plumbing and fire protection engineering services

Completion Date:

2008 (design services)

Reference:

Park Rankin 412/624-9534

University of Pittsburgh

Graduate School of Public Health - Parren and Crabtree Halls Pittsburgh, Pennsylvania

H F. Lenz Company provided engineering services for a building master plan for the complete upgrade of the building infrastructure, including a study for the conversion of a BSL-II lab into a BSL-III lab, and combining an existing BSL-II lab and a BSL-III lab to create one large BSL-III. H.F. Lenz Company has also recently been awarded engineering peer review services for this project which will bring both these structures, which date from Circa 1957, into compliance with current codes and standards for laboratory buildings. A few of the code required

updates will include: a new emergency generator/power supply; new sprinklers installed on a floor by floor basis; expansion of existing fire alarm system; and cross connection of fire protection mains and standpipes

Construction Cost:

\$40,000,000

Services:

Mechanical, electrical, plumbing and fire protection engineering services

Completion Date:

2009 (estimated)

Sq Ft:

173,600 sq.ft. (Parran Hall) 63,900 sq.ft. (Crabtree Hall)

Reference:

Park Rankin 412/624-9534

University of Pittsburgh Benedum Hall Renovations Pittsburgh, Pennsylvania

H F. Lenz Company is currently providing mechanical, electrical, plumbing, and fire protection engineering services for the system upgrades and renovation of portions of Benedum Hall. This 13-story, 401,077 sq.ft., high-rise building houses classroom, physics laboratories and research space for the University of Pittsburgh's Science and Engineering School.



Construction Cost:

\$49,800,000

Services:

Mechanical, electrical, plumbing and fire protection engineering services





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Completion Date:

2009 (estimated)

Sq.Ft.:

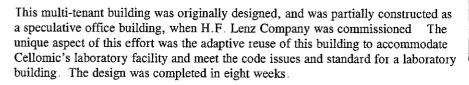
401,077

Reference:

Park Rankin 412/624-9534

Cellomics, Inc. Pittsburgh, Pennsylvania **Biotechnology Facility**

The H.F. Lenz Company provided engineering services for Cellomic's new 160,000 sq.ft. corporate headquarters and research facility Cellomics, Inc. is a world-class provider of biological assays, reagents, instrumentation systems, and cellular bioinfomatics for research aimed at understanding the functions of living cells. The high-tech facility contains approximately 30 fume hoods and three Class 10,000 Clean Rooms. The hoods were integrated with the building automation system to ensure that the amount of conditioned make-up air entering the lab space was controlled and a proper pressure differential to the adjoining spaces was maintained







H.F. Lenz Company also provided mechanical, electrical, plumbing/fire protection engineering services for the retrofit of 40,000 sq.ft. of laboratory space for the University of Pittsburgh's McGowan Institute of Regeneration Medicine in this existing office building.

Construction Cost:

\$10,000,000

Services:

Mechanical, electrical, plumbing/fire protection, and civil engineering services

Completion Date:

2002

Sq.Ft.:

160,000

Reference:

John Tyson 412/486-4870

Shippensburg University Shippensburg, Pennsylvania Franklin Science Center

H. F. Lenz Company provided engineering services for the renovation/retrofit of the Franklin Science Center, a 118,000 sq.ft. three-story Science Building constructed in the 1960s. The building currently serves as the home of the chemistry, biology and physics departments, with the psychology department set to move in following the construction of the project. Due to the age of the building, many of the mechanical and electrical systems were at the end of their useful lives and in need of immediate repair or replacement.



The building was operating under severely negative pressure. Thus, one of the goals of the new HVAC system was to provide new conditioned air to make-up the amount of exhaust air that was leaving the building. This supply air system consists of multiple air-handling units placed on the roof which supply make-up air to the building. The laboratories and fume hoods contain sophisticated controls which track the amount of air exiting the space and then adjust the amount of air entering the space to compensate for this exhaust air. These controls constantly maintain the laboratories at a negative pressure to the corridor.



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The third floor of the building was suffering from a severe humidity problem in the summer months. This, coupled with condensation dripping onto ceiling tiles from uninsulated piping, helped to create a mold problem affecting the indoor air quality. This was corrected by new air-handling units which removed the moisture from the air, and the placement of new insulation onto the existing piping. H.F. Lenz Company monitored the air quality in the building for three years after completion of the project and determined that the air contaminants inside the building were actually lower than the contaminants outdoors under standard atmospheric conditions

Due to the fact that the building had to remain at least partially occupied during the construction process, all of the work was phased in such a way so as to allow one half of the building to remain usable at all times. This allowed the university to maintain their class schedules with minimal disruption

Construction Cost:

\$7,200,000

Services:

Mechanical, electrical, plumbing/fire protection, telecommunications engineering

services

Completion Date:

2002

Sq.Ft.:

118,000

Reference:

Lance Bryson 717/477-1451

Pennsylvania State University University Park, Pennsylvania

New Berkey Dairy Food Science Research Building

H F. Lenz Company provided mechanical, electrical, and plumbing engineering services for the new Food Science Building Some of the specific laboratories include chemistry, food safety, and micro-biology. The pathogens lab is designed for bio-safety Level 2. Also, a food sensory laboratory in which foods are sampled for taste is included. The new building also contains pilot lab areas.

Construction Cost:

\$36,000,000

Services:

Mechanical, electrical, and structural engineering and

surveying services

Completion Date:

2006

Sq.Ft.:

132,000

Reference:

Madhukar Panday 717/783-5942

West Virginia University Morgantown, West Virginia Ag Science Building

H.F. Lenz Company provided the mechanical and electrical design services for a two-story, 38,000 sq.ft. addition to the Agriculture Science Building. The new space includes research and teaching laboratories; a small greenhouse; office space for faculty; staff and graduate assistants; a state-of-the-art tiered lecture hall that seats 250; ADA accessible men's and women's restrooms; and unfinished shell space on the second floor that will be used for future growth and expansion



\$7,000,000

Services:

Mechanical and electrical engineering services

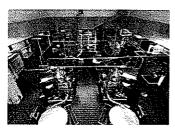
Completion Date:

2005

Sq.Ft.:

38,000











.r.F. LENZ

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Reference:

Joseph Fisher 304/293-7202

Slippery University Slippery Rock, Pennsylvania New Science Building

The H.F. Lenz Company provided engineering services for the construction of a new 79,424 sq ft. science building. The building houses the chemistry, biology, physics, and computer science departments. The project is designed to include an energy recovery system to reclaim as much energy as possible from the large amount of conditioned air being exhausted from the laboratories and fume hoods. The building is completely wired for the data and telephone system utilizing category 6 cabling. All of the classrooms are designed with "smart classroom" capabilities that will allow for easy equipment installation in the future. All 120/208V electrical panel boards utilize integral transient voltage surge protection to protect the computers and other sensitive equipment connected to them from electrical system anamolies.

Construction Cost:

\$12,200,000

Services:

Mechanical, electrical, telecommunication, plumbing, fire

protection, structural, and civil engineering services

Completion Date:

2006

Sq Ft.:

79,424

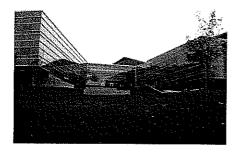
Reference:

Greg Dovey 717/783-5942



Pennsylvania State University New Research and Economic Development Center Erie, Pennsylvania

H.F. Lenz Company provided the mechanical, electrical, plumbing, fire protection/life safety, and telecommunications engineering services for this new, \$23.5 million, "smart" academic building, which was designed to be a state-of-the-art instructional and research facility for the School of Engineering Technology and the School of Business. This 179,640 square foot facility houses classrooms, flexible modern research and instruction labs, computing facilities, faculty offices, seminar/conference areas, a lounge, cybercafe and food court, general/special purpose classrooms, and support spaces.



Construction Cost:

\$23,500,000

Services:

Mechanical, electrical, plumbing, fire protection/life safety, and telecommunications

engineering services

Completion Date:

2006

Sq.Ft:

179,640

Reference:

Bruce Rohrbach 814/865-3790





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Children's National Medical Center Washington, DC

Animal Research Lab Renovation

H F. Lenz Company provided the mechanical, electrical, and plumbing/fire protection engineering services for the Children's National Medical Center's Animal Lab Research facility. The 5,200 sq ft. existing space was renovated in two phases to expand research capacity, and upgrade the HVAC, plumbing, and electrical services The expanded capacity and new equipment provide a state-of-the-art facility. The features of the new laboratory include an operating room, holding rooms, quarantine room, steam sterilizer and cage wash space, procedure room, and support spaces A locker room with an air shower, as well as an ante room, separated the critical areas Most of the areas are rated BSL-1 or BSL-2. Many of the spaces contain biosafety hoods

Construction Cost:

\$1,200,000

Services:

Mechanical, electrical, and plumbing/fire protection engineering services

Completion Date:

2003

Sq.Ft.:

5,200

Reference:

Pres Andam 202/884-3490

Veterans Affair Medical Center Philadelphia, Pennsylvania Third Floor Research Laboratory

H.F. Lenz Company provided engineering services for the renovation of the Third Floor Research facility to accommodate researchers from the University of Pennsylvania completing research from the various government agencies. The space is designed to handle most types of research except radiological contaminants. The project renovated the entire third floor into distinct and separate labs for BSL-1, 2, and 3 level research. The lab systems were designed for maximum flexibility so that simple changes can be made as research is completed and new projects are brought in. The area contains approximately 15 biosafety or fume hoods with future space for additional hoods, tissue culture labs, autoclave, microscopy, and large rooms for refrigerators and freezers. H.F. Lenz Company also completed projects to replace the existing two 300-ton chillers and cooling towers, added a water pressure booster system, and provided an evaluation of the primary electrical gear

Construction Cost:

\$2,000,000

Services:

Mechanical, electrical, plumbing/fire protection, and structural engineering services

Completion Date:

2004

Sq Ft:

8,270

Reference:

Phil Hatsis 215/823-5811

West Virginia University Morgantown, West Virginia

Engineering Sciences Building Renovation

H.F. Lenz Company provided mechanical, electrical, plumbing, and fire protection engineering services for the renovations to the basement level of the Engineering Sciences Building The renovated area consists of approximately 24,000 sq ft, and houses mixed offices, wet and dry laboratories, classrooms and graduate study spaces. The project involves removing the existing mechanical system and replacing with a new system capable of providing the heating, ventilation and air conditioning requirements of the spaces A variable flow refrigerant cooling system is being utilized for five of the laboratories with intensive cooling loads. As a result of the mechanical renovations, the project also includes the removal & replacement of ceilings, light fixtures and other systems affected, along with general aesthetic upgrades.





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Construction is being phased to allow partial occupancy of the building. Construction on the \$2 million renovation project is scheduled to be completed in August 2009.

Construction Cost: \$2,000,000

Services: Mechanical, electrical, plumbing, and fire protection engineering services

Completion Date: 2009 Sq.Ft.: 24,000

Reference: Bill Linn 304/293-2878

United States Energy Department, National Energy Technology Laboratory B-3 Area 150 – North Labs Renovation

Morgantown, West Virginia

H.F. Lenz Company provided engineering services for the renovation of an approximately 3,000 sq ft. coal gasification laboratory. The project included the construction of a new explosion proof bottle storage room, the addition of two new fume hoods, new exhaust fans, new space air-handling units, a new electrical service, upgraded lighting, and the installation of a fire protection system.



Construction Cost:

\$1,000,000 (estimated)

Services:

Mechanical, electrical, plumbing/fire protection, and structural engineering services

Completion Date:

2004 (design) - project was placed on hold

Sq.Ft.:

3,000

Reference:

Benjamin May 304/285-4163





Principal-in-Charge of MEP Systems Engineering

Over the past 25 years, Mr. Gridley has been involved in the design of more than 800 facilities, many of which were educational facilities and several of which included renovation/retrofits of systems for specialized areas such as strictly-controlled laboratory and research facilities, libraries; auditoriums, state-of-the-art conference centers, computer labs, and other academic spaces. Many of these projects have included the renovation of existing systems where phased construction of occupied facilities was required. Mr. Gridley has extensive experience in the design of chilled water, steam, hot water, refrigeration, air distribution, heat recovery and control systems, underground power distribution systems, and interior building distribution systems of all types. His project experience includes:

University of Pittsburgh Pittsburgh, Pennsylvania Over 40 projects including.

- Salk Hall HVAC upgrades
- Graduate School of Public Health Building Master Plan and HVAC Upgrades
- Life Sciences Complex renovations
- Benedum Hall infrastructure improvements
- Chevron Science Center chilled water upgrades
- BST lab renovation
- Litchfield Towers renovations

University of Pittsburgh McGowan Institute of Regeneration Medicine Pittsburgh, Pennsylvania Retrofit of 40,000 sq.ft. of laboratory space

University of Pittsburgh at Johnstown Engineering and Science Building Johnstown, Pennsylvania Mechanical, electrical, and ADA renovations

Cellomics, Inc.
Pittsburgh Technology Center
Pittsburgh, Pennsylvania
New corporate headquarters and cell research
laboratory fitout of existing shell building

West Virginia University
Robert C. Byrd Health Sciences Center
Morgantown, West Virginia
Mechanical/electrical upgrades

Carnegie-Mellon University Pittsburgh, Pennsylvania

- Biological Science Building
- Wean Hall Research Building
- Engineering and Science Building
- Coal Research Laboratory
- Bushy Run Biological Research Center

West Virginia University
Morgantown, West Virginia
Two-story, 38,000 sq.ft addition to the
Agricultural Science Building including
research and teaching laboratories

Pennsylvania State University
University Park, Pittsburgh
New \$22 million, 115,000 sq.ft SALA building
with state-of-the-art laboratories, classrooms,
studios, and offices, LEED™ Gold

PPG Industries, Inc.
Coatings & Resins Research Center
Allison Park, Pennsylvania
Building automation system and other energy
improvements for a seven building complex

Education

Bachelor of Science, Architectural Engineering, 1979, Pennsylvania State University

Experience

H.F. Lenz Company 1979 - Present

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania, West Virginia, and 34 additional states

Professional Achievements and Affiliations

First Place, 1987 ASHRAE International Energy Award • National Society of Professional Engineers • Pennsylvania Society of Professional Engineers • Professional Engineers in Private Practice • American Society of Heating, Refrigerating and Air-Conditioning Engineers • Building Officials Code Administrators International • National Fire Protection Association





Electrical Engineer and LEED™ Accredited Professional

Mr. Shumaker is experienced in the design of electrical systems for both new buildings and building retrofits for laboratories, health care, educational, commercial, government, industrial, residential, and utility-related facilities. He is experienced in the design of power distribution systems; emergency power systems and monitoring; uninterruptible power supplies; lighting and emergency lighting systems; fire alarm systems; nurse call; security; sound; and telephone systems. As an electrical project engineer, Mr Shumaker is responsible for client contact, project scheduling, preparation of reports and cost estimates, coordination and supervision of project design teams, and other project management functions. His project experience includes:

University of Pittsburgh Pittsburgh, Pennsylvania Over 40 projects including:

- Salk Hall HVAC upgrades
- Graduate School of Public Health Building Master Plan and HVAC Upgrades
- Life Sciences Complex renovations
- Benedum Hall infrastructure improvements
- Chevron Science Center chilled water upgrades
- BST lab renovation
- Litchfield Towers renovations

University of Pittsburgh McGowan Institute of Regeneration Medicine Pittsburgh, Pennsylvania Retrofit of 40,000 sq.ft. of laboratory space

Cellomics, Inc.
Pittsburgh Technology Center
Pittsburgh, Pennsylvania
New corporate headquarters and cell research
laboratory fitout of existing shell building

Slippery Rock University Slippery Rock, Pennsylvania New 79,424 sq.ft. science and technology building

Carnegie Mellon University
Pittsburgh, Pennsylvania
Mellon Institute - new electrical system and
chiller for a 350,000 sq.ft. laboratory building

West Virginia University Morgantown, West Virginia Two-story, 38,000 sq.ft. addition to the Agricultural Science Building including research and teaching laboratories

Geneva College Science & Engineering Building Beaver Falls, Pennsylvania

- Complete mechanical/electrical renovation including laboratory and classrooms
- 30,000 sq.ft laboratory addition

Shippensburg University Franklin Science Center Shippensburg, Pennsylvania

- Complete renovation of mechanical systems and miscellaneous upgrades to plumbing and fire protection systems
- New telecommunications system

Princeton Plasma Physics Laboratory Princeton, New Jersey Code research and conceptual design for upgrade of a multi-building fire protection signaling system

Wittenberg University Springfield, Ohio Science building feasibility study

Westminster College New Wilmington, Pennsylvania Hoyt Science Center HVAC renovation

Education

Bachelor of Science, Electrical Engineering Technology, 1993, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 1985 - Present

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania and West Virginia ● LEED™ Accredited Professional

Professional Affiliations

Association of Physical Plant Administrators • National Society of Professional Engineers • Pennsylvania Society of Professional Engineers • Southern Building Code Congress International



HFL Chief Mechanical Engineer & Laboratory Specialist

Mr. Stewart has over 20 years experience in the design of HVAC, plumbing, and fire protection systems. His responsibilities have included code compliance verification, schematic layout, calculations, equipment selection, control system selection, specification writing, coordination, life cycle cost analyses, and cost estimating. His experience includes the design of mechanical systems for office buildings, hospitals, educational facilities, industrial plants, and military installations. He has also been involved in the design of chiller and boiler plants. His project experience includes (*indicates prior experience):

Carnegie Mellon University Pittsburgh, Pennsylvania

- Mellon Institute -Various M & E
 infrastructure upgrade projects for the
 350,000 sq.ft. laboratory building including
 Chilled water plant upgrades, cooling tower
 replacements, fume hood and exhaust system
 study, and eight new laboratories
- Phase II renovations of Doherty Hall, a highrise 217,000 sq.ft. historic building housing laboratories, offices, and classrooms for the Chemical Engineering Department
- Wean Hall Various M & E infrastructure upgrade projects including: Chilled water plant upgrades, cooling tower replacements, fume hood and exhaust system study, and four new laboratories
- New \$10M first year residence hall
- New high pressure steam line to serve the new 209,000 sq.ft Gates Building
- Sprinkler design and analysis for 24 residence buildings
- New University Center building with offices, several dining areas, serveries, ballroom, auditorium, gymnasium, natatorium, weight room, squash courts, and basketball courts
- New tunnel-installed steam service
- 900-ton chiller addition to existing plant

Cellomics, Inc. Pittsburgh, Pennsylvania

- New 160,000 sq.ft biotechnology facility
- New 400-ton chiller plant for laboratories
- Laboratory exhaust and control systems

University of Pittsburgh*
Graduate School of Public Health
Pittsburgh, Pennsylvania
Renovation of laboratories and offices

NASA Lewis Research Center* Cleveland, Ohio New 50,000 sq ft. building addition and 80,000 sq.ft. laboratory/office renovation

PPG Industries, Inc Chemicals Research & Development Monroeville, Pennsylvania Fume hood and control system upgrade

Pennsylvania State University University Park, Pennsylvania New 132,000 sq.ft. Berkey Food Science Research and Laboratory Facility

Slippery Rock University Slippery Rock, Pennsylvania New 79,424 sq.ft science and technology building

Education

Master of Science, Mechanical Engineering, University of Pittsburgh, 1995 Graduate Courses in Facilities Engineering, Air Force Institute of Technology, 1984-1987 Bachelor of Science, Mechanical Engineering, University of Pittsburgh, 1984

Experience

H.F. Lenz Company 1996 - Present

Peter F. Loftus Division, Eichleay Engineers, Inc. 1989 - 1996

Newport News Shipbuilding 1988 - 1989 • U.S. Air Force 1984 - 1988

Professional Certification

Licensed Professional Engineer in Pennsylvania ● Certified LEED™ Professional

Professional Affiliations

Adjunct Assistant Professor for the University of Pittsburgh at Johnstown in HVAC Design for the Mechanical Engineering Technology Curriculum American Society of Heating, Refrigerating, and Air-Conditioning Engineers; APPA; U.S. Green Buildings Council





Laboratory and Clean-Room Specialist

Mr. Palmer has worked in the HVAC engineering field for over 20 years as a consulting engineer, department manager, and project manager. His design and management background includes central plant chiller and boiler design, office buildings, manufacturing and industrial facilities, and laboratory and clean room designs. He has been lead system design engineer on projects exceeding \$250 million in construction cost. His projects include (*indicates prior experience):

University of Pittsburgh Pittsburgh, Pennsylvania

- Eberly Hall mass Spectrometry Laboratory
- Cathedral of Learning HVAC*

Carnegie Mellon University Pittsburgh, Pennsylvania

- Numerous project for the Mellon Institute Building –an eight-story, 350,000 sq.ft science and research facility
- Phase II renovations of Doherty Hall a highrise, 217,000 sq.ft historic building housing laboratories, offices, and classrooms for the Chemical Engineering Department

Bettis Atomic Power Laboratory* West Mifflin, Pennsylvania

- Advanced Concepts Research Building HVAX
- HQTF High Bay and Office Area HVAC

IBM*

East Fishkill, New York
Mechanical system design for retrofit of class
1000 cleanroom to class 100 and class 10
semiconductor cleanroom

Plasma-Therm, Inc *
St. Petersburg, Florida
Mechanical and process systems design for 30,000 sq.ft. of class 10 through 10,000 cleanroom design

Education

Bachelor of Science, Energy Technology, 1983 Pennsylvania State University

Experience

H.F. Lenz Company 2002 - Present
Eichleay Engineers 1998- 2002 • Industrial Design Corporation 1993 - 1997
South Hills Engineering Inc. 1991 - 1993 • Presbyterian University Hospital 1988 - 1990
Olds Engineering Associates Inc. 1983 - 1985

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania

Professional Affiliations

Institute of Environmental Sciences and Technology

Dominion Semiconductor*
Manassas, Virginia
Mechanical system design for 150,000 sq.ft.
semiconductor clean room retrofit

MEMC*

St Charles, Missouri Mechanical system design of 15,000 sq.ft class 1 semiconductor cleanroom retrofit

Lucent Technologies*
Murray Hill, New Jersey
Mechanical programming design of a 20,000
sq.ft. research and development cleanroom

SVG Corporation*
Wilton, Connecticut
Programming design of 15,000 sq.ft. assembly cleanroom

Intel, Inc.*
Chandler, Arizona
Mechanical design of central plant utilities for 100,000+ square foot sub-class 1
semiconductor facility

GMT Microelectronics*
Valley Forge, Pennsylvania
Programming design of 20,000 sq.ft. semiconductor cleanroom fit-up





Fire Protection Designer NICET Level III Automatic Sprinkler System Layout

Mr. McKendree is a graduate of Eastern Kentucky University's Fire and Safety Engineering program, a program of distinction in the Commonwealth of Kentucky as certified by the Commonwealth of Kentucky Board of Higher Education Mr. McKendree's experience prior includes conducting site inspections for emergency incident planning in Lower Paxton Township in suburban Harrisburg, Pennsylvania Typical sites included educational, industrial, manufacturing, and mercantile properties. These plans have been utilized to protect lives and property from the effects of fire through the use of NFPA and local standards for safety.

He is fully knowledgeable of NFPA standards and is experienced in the design of wet, dry, preaction, deluge, and special application fire protection systems. He is responsible for sprinkler system design, layout, and calculations; selection and sizing of fire protection equipment; cost estimates; and site survey work. Mr. McKendree coordinates with other trades, municipal fire protection authorities, utility companies, and with the Project Engineer and project Architect. While attending Eastern Kentucky University, Mr. McKendree earned Golden Key National Honor Society, Alpha Phi Sigma, and Who's Who Among American College Students nominations. Mr. McKendree has been involved in the design of fire protection systems for the following projects:

University of Pittsburgh Pittsburgh, Pennsylvania

- Grad School of Public Health Master plan and renovations to the 173,600 sq.ft. Parran Hall and 63,900 sq.ft. Crabtree Hall buildings, both facilities contain various laboratory and research facilities
- Life Sciences Complex renovations to various buildings and building systems for the 200,000 sq.ft. complex which houses various types of laboratories and research facilities
- Benedum Hall system upgrades and renovations to portions of the 401,077 sq.ft building which houses laboratories and classrooms

Shippensburg University Shippensburg, Pennsylvania Fire sprinkler system design for the new Franklin Science Center

West Virginia University Morgantown, West Virginia

- Renovations to White Hall, physics lab building
- New 38,000 sq.ft addition to Ag Science building
- Complete fire protection for a new library including a 22,000 sq.ft. addition and the renovation of a 17,400 sq.ft. existing building
- Fire pump layout and hydraulic calculations
- Pre-action sprinkler system design

Geneva College Beaver Falls, Pennsylvania Designed new fire sprinkler system and evaluated fire pump needs

Carnegie Mellon University Pittsburgh, Pennsylvania Sprinkler study and master plan

Education

Bachelor of Science Degree, Fire and Safety Engineering, 1999, Eastern Kentucky University Associate of Arts Degree, Fire Science Technology, 1997, Harrisburg Area Community College

Experience

H.F. Lenz Company June 1999 - present Paxtonia Fire Company incident preplanning committee August 1995 - August 1997

Professional Registration / Certification

NICET Level III in Fire Protection Engineering Technology / Automatic Sprinkler System Layout





Plumbing / Fire Protection Designer

Mr. Kormanik has designed complete plumbing and sprinkler systems for laboratories, hospitals, colleges, schools, office buildings, industrial facilities, prisons, and military installations. He is responsible for plumbing and sprinkler system design, layout, calculations; selection and sizing of equipment; cost estimates; and site surveys. He is knowledgeable of all applicable plumbing codes. He supervises drafting personnel; coordinates the plumbing design with utility companies, with other trades, and with the Project Engineer and Project Architect; and is responsible for assembling complete and accurate plumbing bid documents which meet H.F. Lenz Company standards.

Mr. Kormanik also conducts evaluations and prepared reports of existing plumbing and sprinkler systems for commercial and institutional facilities. His project experience includes:

University of Pittsburgh Pittsburgh, Pennsylvania

- Grad School of Public Health Master plan and renovations to the 173,600 sq.ft. Parran Hall and 63,900 sq.ft. Crabtree Hall buildings, both facilities contain various laboratory and research facilities
- Life Sciences Complex renovations to various buildings and building systems for the 200,000 sq.ft complex which houses various types of laboratories and research facilities
- Benedum Hall system upgrades and renovations to portions of the 401,077 sq.ft. building which houses laboratories and classrooms

Veterans Affairs Medical Center Philadelphia, Pennsylvania Renovation of the third floor into distinct and separate labs for BSL-1, 2, and 3 level research

Pennsylvania State University
University Park, Pittsburgh
New \$22 million, 115,000 sq.ft SALA building
designed to provide state-of-the-art laboratories,
classrooms and studios, and modern studio
offices, Project goal LEED™ Gold

Princeton University
Plasma Physics Laboratory
Princeton, New Jersey
Extension and revisions of fire protection system

Education

Associate, 1983, Interior Design

Experience

H.F. Lenz Company 1985 - Present

Professional Registration / Certification Certified in Plumbing Design, ASPE Certified Plumbing Plans Examiner (BOCA) Certified Plumbing Inspector (BOCA) Naval Research Laboratory
Washington, D C
Conversion of penthouse to semi-clean room

Edinboro University of Pennsylvania Edinboro, Pennsylvania

- Conversion of domestic hot water heaters in eight buildings from electric to gas
- Conversion of electric boilers to gas-fired in six buildings
- Design of plumbing renovation, Rose Hall dormitory

Ruby Memorial Hospital
West Virginia University Hospitals
Morgantown, West Virginia
Master plan and design services for a 176,000
sq ft. addition and 47,000 sq ft. renovation,
including a new boiler/chiller plant that serves
878,000 sq ft. of clinical spaces

Altoona Hospital Altoona, Pennsylvania New seven-story outpatient tower

Hamot Hospital Erie, Pennsylvania

- Facility-wide sprinkler system design renovation
- North wing domestic water study and conceptual design



David B. Schmidt, Jr., P.E., RCDD

Telecommunications Engineer

Mr. Schmidt has a wide range of electrical engineering experience in commercial and industrial environments. His experience includes communications, direct digital controls, fire detection, energy management, power distribution, and lighting systems. His specific communications expertise includes data wiring systems including business system LANS, manufacturing automation LANS, horizontal wiring including telephony, and both fiber optic and copper backbone cabling systems. His knowledge of network architecture results from both the study of appropriate standards and manufacturers' application guides along with—and more importantly—being the responsible individual for the design, implementation, operation, and maintenance of network installations. His projects include:

Carnegie Mellon University
Pittsburgh, Pennsylvania
Design of Communication cabling system for
Doherty Hall, a 217,000 sq. ft. building
including a Chemical Engineering Department
with laboratories, offices, and classrooms

Penn State University
Erie, Pennsylvania
Design of communication cabling system for the
new Research & Economic Development
Center, a \$23.5 million, "smart" academic
building, designed to be a state-of-the-art
instructional and research facility for the
School of Engineering Technology and the
School of Business

Pennsylvania State University University Park, Pennsylvania Design of communication cabling system for the new Food Science Building, a 132,000 sq.ft. research and laboratory facility Shippensburg University
Shippensburg, Pennsylvania
Design of a campus-wide data network and
CATV distribution system

Harvard Business School Boston, Massachusetts Design of communication cabling system for the new Technology Operations Center including the extension and reconfiguration of the campus backbone

Bryn Mawr College, Bryn Mawr, Pennsylvania Design of communication cabling system for Dalton Hall, a 20,000 sq.ft. academic building

West Virginia University Charles Wise Library Morgantown, West Virginia Data cabling system design

Education

Graduate Studies, Manufacturing Systems Engineering Program, 1995, University of Pittsburgh Bachelor of Science, Electrical Engineering Technology, 1990, University of Pittsburgh at Johnstown Associate in Specialized Technology, Electronics, 1979, Penn Technical Institute

Experience

H.F. Lenz Company 1995 Johnstown America Corporation 1994 - 1995 L.IV Steel 1991 - 1994 Metalworking Technology, Inc. 1989 - 1991 Lincoln Contracting & Equip. Co. 1982 - 1984

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania, PE-051691-E, Electrical Engineering Registered Communications Distribution Designer AMP Act III Certified Network Designer Lucent Technologies Systimax SCS, Certified Consultant Program

Professional Affiliations

Building Industry Consulting Service International (BICSI) • National Society of Professional Engineers (NSPE)

Client References

ALPHA ASSOCIATES INCORPORATED Firm Profile

Client References

Recently Constructed Projects

West Virginia University Robert C. Byrd Health Sciences Center Mr. Leonard Lewis, Director G350 Health Science Center South Morgantown, WV 26506 304-293-4832

John Sommers
West Virginia University
Senior Construction Projects Manager
PO Box 6572
Morgantown, WV 26505
304-293-2856

Joe Morton

Agricultural College

PO Box 6057

Morgantown, WV 26506

304-293-3911

Eugene Ciliento West Virginia University Dean

PO Box 6070 Morgantown, WV 26506 304-293-4821

