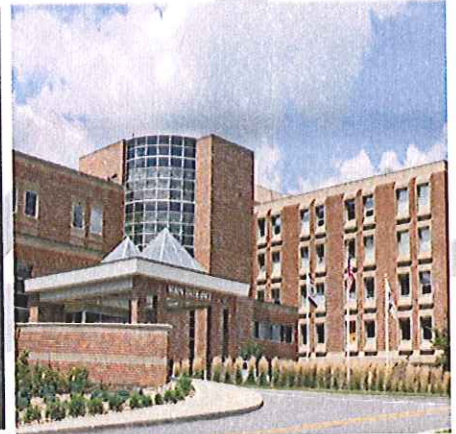




**WHS12067: New Patient  
Care Unit at William R.  
Sharpe Jr. Hospital**

Architectural/Engineering Services  
October 27, 2011

**EXPRESSION OF INTEREST**



RECEIVED

2011 OCT 25 AM 11:59

WV PURCHASING  
DIVISION

think **Alpha** first.com



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

# Request for Quotation

RFQ NUMBER
WSH12067

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER 304-558-0067

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE  
 Alpha Associates, Inc.  
 209 Prairie Avenue  
 Morgantown, WV 26501

SHIP TO

HEALTH AND HUMAN RESOURCES  
 OFFICE OF PROPERTY MANAGEMENT  
 VARIOUS LOCALES AS INDICATED

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
09/23/2011				

BID OPENING DATE: 10/27/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		EOI		
<p>A&amp;E SERVICES FOR 50 BED EXPANSION AT SHARPE HOSPITAL</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>PROFESSIONAL ARCHITECTURAL/ENGINEERING SERVICES</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES, IS SOLICITING EXPRESSIONS OF INTEREST TO PROVIDE ARCHITECTURAL CONSULTING AND ARCHITECTURAL &amp; ENGINEERING SERVICES FOR THE DESIGN OF A NEW 27,000 +/- SQUARE-FOOT 50 BED PATIENT CARE UNIT AT THE WILLIAM R. SHAPRE, JR. HOSPITAL IN WESTON, WV. PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO ROBERTA WAGNER VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115, OR VIA EMAIL AT ROBERTA.A.WAGNER@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 10/11/2011 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICE</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
	304-296-8216	10-24-11
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
President and COO	550-0516286	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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<p>SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>NOTICE</p> <p>A SIGNED EOI MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION          PURCHASING DIVISION          BUILDING 15          2019 WASHINGTON STREET, EAST          CHARLESTON, WV 25305-0130</p> <p>PLEASE NOTE 3 (THREE) CONVENIENCE COPIES WILL BE APPRECIATED.</p> <p>THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:</p> <p>SEALED PROPOSAL</p> <p>BUYER: ROBERTA WAGNER-FILE 22</p> <p>EOI. NO.: WSH12067</p> <p>EOI OPENING DATE: 10/27/2011</p> <p>EOI OPENING TIME: 1:30 PM</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
SIGNATURE <i>Robert Wagner</i>	TELEPHONE 304-296-8216	DATE 10-24-11
TITLE President and COO	FEIN 550-0516286	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR EOI: 304-296-8216 ----- CONTACT PERSON (PLEASE PRINT CLEARLY): Richard A. Colebank -----  ***** THIS IS THE END OF RFQ WSH12067 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Richard A. Colebank</i>	TELEPHONE 304-296-8216	DATE 10-24-11	
TITLE President and COO	FEIN 550-0516286	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

RFQ No. WSH12067

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

West Virginia Code §5A-3-10a states: 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.

**DEFINITIONS:**

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

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

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

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.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Alpha Associates, Incorporated

Authorized Signature:  Date: 10-24-11

State of West Virginia

County of Monongalia, to-wit:

Taken, subscribed, and sworn to before me this \_\_\_ day of \_\_\_\_\_, 20\_\_.

My Commission expires \_\_\_\_\_, 20\_\_.

AFFIX SEAL HERE

NOTARY PUBLIC \_\_\_\_\_



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
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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.: WSH12067						
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. 2 .....						
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			
SIGNATURE <i>Robert Wagner</i>	TELEPHONE 304-296-8216	DATE 10-24-11	
TITLE President and COO	FEIN 550-0516286	ADDRESS CHANGES TO BE NOTED ABOVE	

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<p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p style="text-align: center;">..... SIGNATURE Alpha Associates, Incorporated ..... COMPANY October 24, 2011 ..... DATE</p> <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.</p> <p>REV. 09/21/2009</p> <p style="text-align: center;">END OF ADDENDUM NO. 1</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
President and COO	304-296-8216	10-24-11	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	
President and COO	550-05166286		

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October 27, 2011

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

ATTN: Roberta Wagner

**RE: WSH12067 – Expression of Interest  
50 Bed Patient Care Unit  
William R. Sharpe, Jr. Hospital**

Dear Ms. Wagner,

Alpha Associates, Incorporated is pleased to submit this Expression of Interest to provide architectural and engineering services for the design of a new 27,000 +/- square foot 50 bed patient care unit at the William R. Sharpe, Jr., Hospital located in Weston, West Virginia.

#### **HISTORY/EXPERIENCE**

Alpha was established in 1969, over the past 42 years we have provided architectural and engineering design services for various clients throughout West Virginia and the surrounding states. Alpha's architectural design projects range from small renovations to 210,000 square foot new construction buildings.

Alpha has provided design services for multiple hospitals including: Mon General Hospital, Ruby Memorial Hospital, Sundale Nursing Home, West Virginia University Health Sciences Center, Mary Babb Randolph Cancer Center, Harpers Ferry Medical Clinic and Reynolds Memorial Hospital. We will put this experience to work for you.

#### **TEAM**

A positive relationship with your design team is based on several elements. Trust and confidence make a great foundation for the client/design team relationship. When you entrust the design of your facility to Alpha, you will have a design team that you can count on to deliver. Confidence in the design team is built on trust, but it must be founded on the past reputation of the team



members. The track record for our design team includes hospitals, health care clinics, long term care facilities and much more.

The majority of the services needed to complete your project are in-house functions at Alpha. Our firm provides services in architectural design, structural engineering, civil engineering, surveying, landscape design, interior design, and construction administration.

H.F. Lenz Company, located in Johnstown, PA has joined Alpha's team to provide mechanical, electrical and plumbing engineering services. Alpha and Lenz have worked together as a team on multiple projects for over 17 years. Alpha is confident in our Team's ability to create a design that will exceed your expectations.

Alpha and Lenz both have LEED- Accredited Professionals on staff that will incorporate reduced energy and reduced costs of ownership into the design of your new patient care unit.

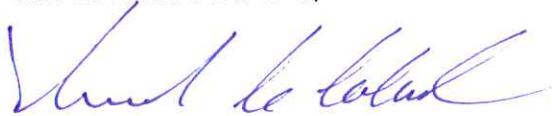
Our team will work hand-in-hand with you to ensure your project is completed on schedule and within budget. From the beginning we will develop a schedule that meets your needs and that will ensure your project will be completed on time. We will develop complete and accurate plans that will eliminate the need for change orders.

#### **SUMMARY**

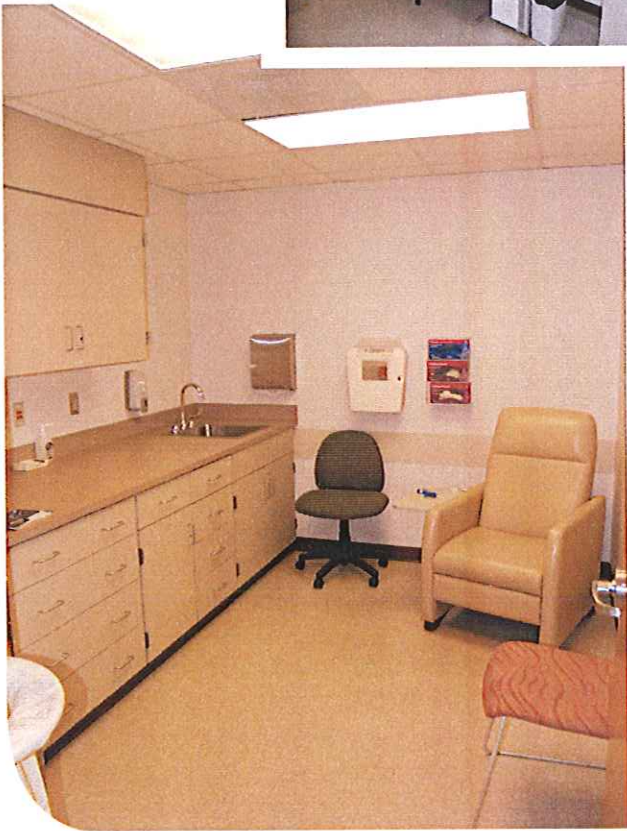
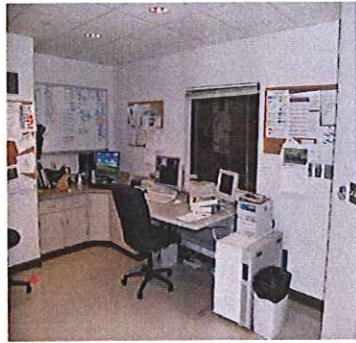
Let us put our knowledge and experience to work for you. The Alpha team is ready to begin work immediately. We look forward to sharing our ideas with you in an interview. Should you have any questions please contact me at 304-296-8216 x102.

Sincerely,

**ALPHA ASSOCIATES, INCORPORATED**



Richard A. Colebank, PE, PS  
President and COO  
[rick.colebank@thinkalphafirst.com](mailto:rick.colebank@thinkalphafirst.com)



## FIRM PROFILE

### Firm Profile

#### 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, WV

#### FIRM PRINCIPALS

Richard A. Colebank, PE, PS; President and COO  
Richard W. Klein, PE, PS; Chairman and CEO  
James A. Davison, AIA; Vice President  
Charles B. Luttrell, PE; Principal  
Steven V. Buchanan, PE, PS; Principal  
Matthew S. Breakey, AIA, LEED-AP; Principal  
Charles B. Branch, PE; Principal

#### NUMBER OF EMPLOYEES

33 Employees

#### SERVICES

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

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.



## PROJECT MANAGEMENT

Alpha Associates, Incorporated is an Architectural and Engineering firm that provides services in the areas of Architectural Design, Civil Engineering, Structural Engineering, Interior Design, Surveying, Construction Administration, and Project Management. Our work is diverse and includes clients in medical, commercial and residential, educational and governmental facilities, developers and private organizations. Alpha's architects and civil and structural engineers have recent, relevant project experience that enables projects to be completed on time and within budget.



Alpha is a principal driven company with a staff that is large enough to handle any size project, yet small enough to provide the personal detail and supervision to successfully complete your project. We are available to you long after the completion of your project. Our staff is committed to working with an established project time frame and budget.

Alpha works under a project management system wherein each project is assigned a project manager and a principal of the firm. Internal bi-weekly project management meetings serve as a tool to discuss the preceding weeks' activities, planned activities, project budgets, estimated time schedules and personnel utilization. Adherence to this process helps to insure that a client's concerns are addressed in a timely fashion aiding in the delivery of a successful project.

Prior to releasing projects for bidding and construction, each project receives a Principal's review. The Principal-in-Charge of the project and the Project Manager conduct the review, which involves a complete evaluation of all internally produced and consultant produced construction documents. Alpha's construction administration staff performs a second assessment to examine constructability and coordination issues from the perspective of the construction field staff. Alpha will also use a "redi-check" system to ensure quality control on the project is maintained.



In addition to project management meetings, design principals meet every four weeks to review all project schedules and all personnel utilization. Alpha's project managers and staff work daily with simultaneous projects and understand the importance of time management and prioritization. The Project Managers work together to organize and allocate each staff member's resources. Alpha understands that each specific project is the top priority to that individual client.



That is why Alpha is committed to your project and assures that all necessary means are taken to ensure that your project is completed on time. This results in the overall best use of personnel in order to complete all projects on time.

Your project benefits from the unique combination of convenient access, extensive experience, key owner/principal commitment, and a competitive price structure. Select Alpha Associates, Incorporated for a well coordinated, timely and high quality project.



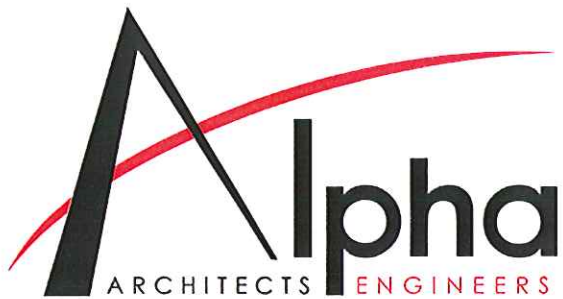
## CONSTRUCTION ADMINISTRATION

Alpha Associates, Incorporated will provide a complete range of construction phase services including periodic inspections, review and approval of Contractor pay applications, conducting progress meetings and providing technical assistance throughout the construction phase. During construction we will review the Contractor's various project material submittals, develop color selections for your consideration and approval and perform a final "Punch List" inspection to assure satisfactory completion of the work. This is the phase of the project that is crucial to the ultimate success of your project. Our experienced team can successfully interface with the contractor and provide the direction needed for a successful project.



Alpha has an excellent track record of meeting project design deadlines. Alpha recently completed construction on a project in Morgantown that went from design to completion in just over 12 months. This project was completed for a private developer and had a construction cost in excess of \$20 million.

Another recent project success was a multi million construction project for West Virginia University. This project, an addition to the Agricultural Sciences Building, also had an accelerated project schedule and was completed on time and within the budget.



## EXPERIENCE

Alpha Associates, Incorporated was founded in 1969 in Morgantown, WV and added our Eastern Regional Office in Martinsburg in 1995. Between the two offices we have the ability to provide many services including, architectural design, civil engineering, structural engineering, surveying, landscape design, and construction administration.

Over the past 42 years, Alpha has designed health care spaces for various clients. The Robert C. Byrd Health Sciences Center at West Virginia University was among the first clients for the firm. Alpha has provided continual design services for the Health Sciences Center since that time. Additional medical facility clients include:

- Ruby Memorial Hospital
- Monongalia General Hospital
- Reynolds Memorial Hospital
- Ruby Memorial Hospital ER Addition
- Louis A. Johnson VA Medical Center
- Harpers Ferry Medical Clinic
- Sundale Nursing Home
- Mary Babb Randolph Cancer Center

Alpha's experience in designing medical facilities is extensive. We have completed over one million square feet of design services for the above medical facilities.

### Sustainability

Alpha understands the importance of sustaining the environment for future generations. Alpha works closely with the client to determine the level of environmental impact that the project will have. For example, Alpha works very hard to preserve and reuse equipment and building materials where necessary. Projects that have been designed include reuse of elements from stained glass windows to commercial cafeteria equipment.



Both Alpha and Lenz have LEED Accredited Professionals on staff that will make sure your facility is designed with cost effective energy conserving features. Where appropriate, we provide the ability to obtain any level of LEED Certification that you may desire or to simply utilize the principals of sustainable design to benefit your project.



### ALPHA EXPERIENCE

Health Sciences - Eastern Division | 2006

## Medical Case Study

**WVU Robert C. Byrd Health Sciences Center**  
Eastern Division  
Martinsburg, WV

Alpha designed the architectural and structural engineering aspects of the new two-story structure of 36,650 sq. ft. Alpha also designed the civil engineering aspects of this challenging site in Martinsburg, WV.

The site, approx. 2.5 acres, presented challenges of its own including a unique underground stormwater management system to maximize the usable acreage.

An architectural highlight of the structure is a clearstory lobby serving a 200 seat auditorium with high tech features. Also included are classrooms, storage rooms and meeting rooms. A large computer-based study area is also included that will allow for more than 150 students to utilize the space at one time.

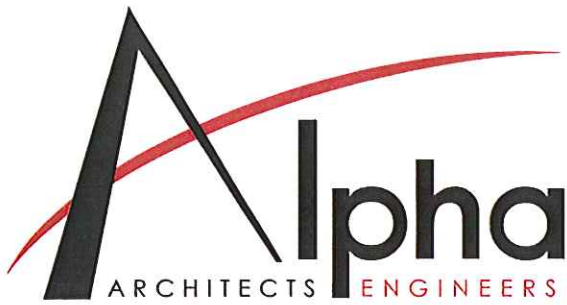
**Project Manager:**  
Leonard Lewis  
Po Box 9004  
Morgantown, WV 26506  
304-293-6924

### At a Glance

**CLIENT:** West Virginia University  
RCB HSC  
**LOCATION:** Martinsburg, WV  
**COMPLETION DATE:** 2006  
**SIZE:** 36,650 Sq. Ft.  
**CONSTRUCTION COST:** \$4.8 Million







**ALPHA EXPERIENCE**

**South Agricultural Sciences Building | 2005**

**Educational Case Study**

**WVU -South Agricultural Sciences Building  
Morgantown, WV**

Alpha provided architectural and engineering design services for a two-story addition to the south side of the WVU Agricultural Sciences Building. The addition included a large 250 seat, multi-tier general purpose lecture lab, 7 research labs, 2 teaching labs, 12 faculty offices, a greenhouse, assorted support rooms, and an unfinished shell space for future expansion, all within 40,000 square feet.

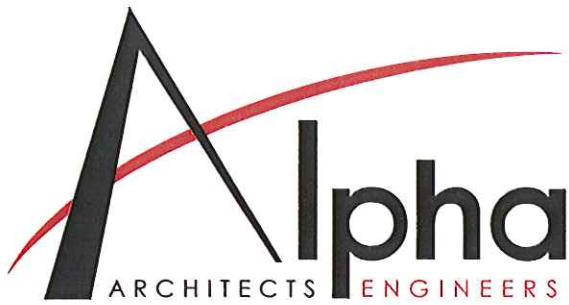
The expediency of the project necessitated a building envelope that was fast and affordable, while at the same time providing a connection with the existing white/gray masonry construction of the 1950's era Agriculture Sciences Building.

**Project Manager:**  
**John Sommers**  
**Po Box 6572**  
**Morgantown, WV 26506**  
**304-293-2856**

**At a Glance**

**CLIENT: West Virginia University**  
**LOCATION: Morgantown, WV**  
**COMPLETION DATE: 2005**  
**SIZE: 40,000 Sq. Ft.**  
**CONSTRUCTION COST: \$7.3 Million**





### ALPHA EXPERIENCE

Ruby Memorial Hospital | 2003

## Medical Case Study

**Ruby Memorial Hospital Emergency Room - Addition and Renovation**  
Morgantown, WV

Ruby Hospital had only one vacant area in which to create an expansion to its already too small emergency facilities. Alpha successfully inserted the new two and a half story addition between two existing buildings and an elevated pedestrian bridge. The site was steep and confined; an elevated floor slab was used at the main floor, creating a large enclosed mechanical room on the lowest level eliminating the need for roof top units on the addition.

The addition replicated many of the same architectural elements of the adjacent structures, so as to appear of the same time and materials as the existing hospital buildings.

The addition was completed first to accommodate the 24/7 emergency room services, while the existing emergency room was remodeled with larger waiting areas and more exam rooms.

There were no interruptions to medical care during the expansion and remodeling.

**Project Manager:**  
Alexis Behrens  
P.O. Box 8059  
Morgantown, WV 26506  
304-598-4125

### At a Glance

**CLIENT:** WVU Hospitals, Inc.  
**LOCATION:** Morgantown, WV  
**COMPLETION DATE:** 2003  
**SIZE:** 5000 sq ft addition  
10,000 sq ft renovation  
**CONSTRUCTION COST:** \$1.9 Million





### ALPHA EXPERIENCE

WVU Potomac State College | 2008

## Educational Case Study

### WVU Potomac State College Connecting Link

Keyser, WV

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

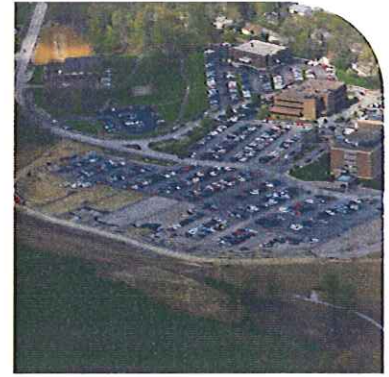
Through the use of an elevator, multiple ramps, and new corridors, wheelchair access is available to all public areas of both buildings. Renovations of classrooms and toilet rooms were also made to meet ADA regulations.

**Project Manager:**  
Harlan Shreve  
101 Fort Avenue  
Keyser, WV 26726  
304-788-6800

### At a Glance

**CLIENT:** West Virginia University  
**LOCATION:** Keyser, WV  
**COMPLETION DATE:** 2008  
**SIZE:** 3,600 SF Addition  
11,200 SF Renovation  
**CONSTRUCTION COST:** \$7.3 Million





**ALPHA EXPERIENCE**

Mon General Hospital | 2011

### Medical Case Study

#### Monongalia General Hospital Addition and Renovation

Morgantown, WV

Alpha Associates, Incorporated teamed with architectural firm, Freeman White and construction firm, Turner Construction to provide Civil Engineering services for an expansion project for Monongalia General Hospital. This project included alterations to the parking area and entrance road. Alpha's services included site design services for parking lot reconfiguration, stormwater management design and utility upgrades.

**Project Manager:**

Dan Wheeler

1200 JD Anderson Drive  
Morgantown, WV 26505

304-598-1226

At a Glance

**CLIENT:** Monongalia Health Systems

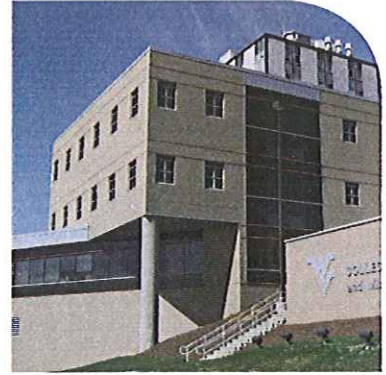
**LOCATION:** Morgantown, WV

**COMPLETION DATE:** 2011

**SIZE:** Multiple Projects

**CONSTRUCTION COST:** \$70 Million





### ALPHA EXPERIENCE

ESB East Wing Addition | Reno/Add 2008

## Educational Case Study

WVU ESB - East Wing Addition  
Morgantown, WV

The first phase of this project was a feasibility study that evaluated the building to determine the nature and scope of the addition.

The West Virginia University Engineering Science Building East Wing Addition/Renovation project was conceived to create a new primary entrance to the existing 228,000 SF building. It consists of a 4-story addition as well as the conversion of an abandoned 3 1/2 story boiler room into usable program space. This 3 1/2 story boiler space was subdivided into 3 floors supporting chemical-research labs and a tiered lecture hall.

### Project Manager:

Kevin Kilinsky  
Po Box 6572  
Morgantown, WV 26506  
304-293-4841

### At a Glance

**CLIENT:** West Virginia University  
**LOCATION:** Morgantown, WV  
**COMPLETION DATE:** 2008  
**SIZE:** 32,600 add, 6,500 reno.  
**CONSTRUCTION COST:** \$11 Million





## ALPHA RESUMES

**Richard A. Colebank, PE, PS** | President and COO

### SUMMARY

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



### PROFILE

Broad-based responsibilities in the following areas:

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

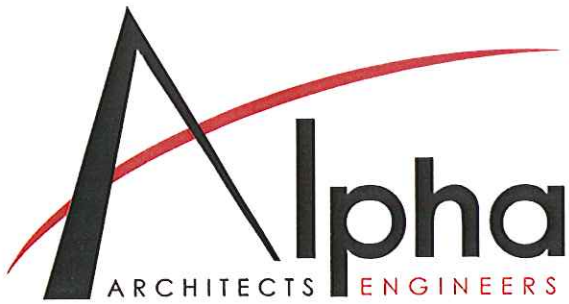
### PROFESSIONAL HIGHLIGHTS

#### Project Manager:

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

#### Indefinite Delivery/Indefinite Quantity Contracts:

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



## ALPHA RESUMES

**Richard A. Colebank, PE, PS** | President and COO

### EMPLOYMENT HISTORY

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

### EDUCATION

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

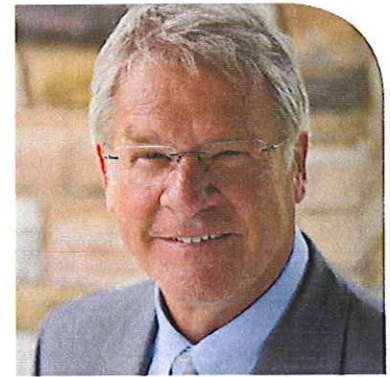
### QUALIFICATIONS

- **License:** Professional Engineer: West Virginia, Maryland, Pennsylvania, Virginia

Professional Surveyor: West Virginia  
 Certified Private Pilot

### AFFILIATIONS

- WV Society of Professional Engineers
- National Society of Professional Engineers
- Former NSPE/PEPP Governor of WV
- ACEC/WV; Former President and Current National Director
- University High School Foundation; Charter Member; President
- Morgantown Area Chamber of Commerce; Past Chairman
- Monongalia County PO Technical Advisory Committee; Member
- Morgantown Area Economic Partnership; Member



## ALPHA RESUMES

**James A. Davison, AIA** | Vice President, Architect

### SUMMARY

Mr. Davison joined Alpha Associates, Inc. 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 WV Society of Architects has recognized Mr. Davison for his excellence in architecture with design awards for the WVU Engineering Research Building, Wheeling College Chapel, Morgantown High School, and KCADS Professional Office Building.



### PROFILE

Broad-based responsibilities in the following areas:

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

### PROFESSIONAL HIGHLIGHTS

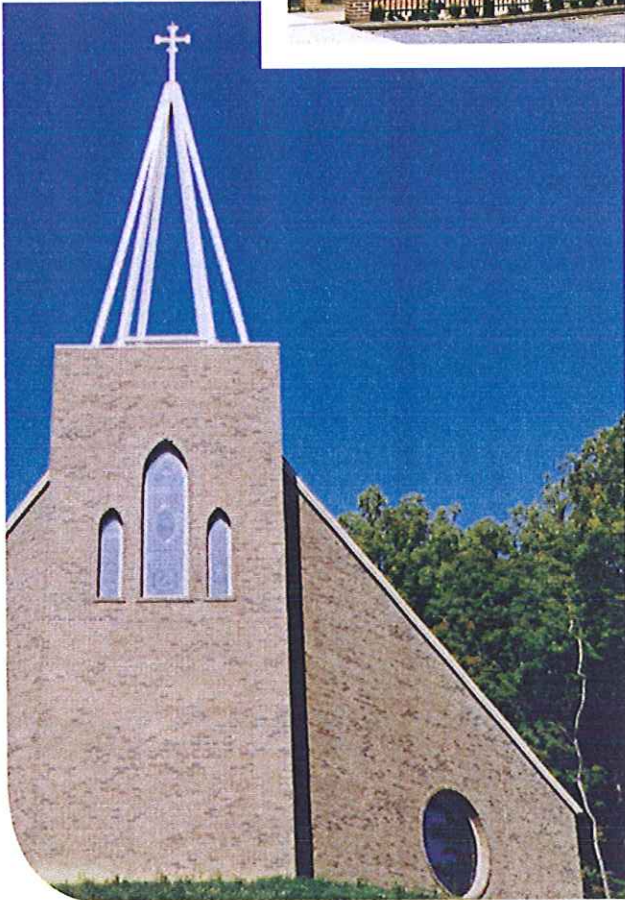
#### Higher Educational Facilities

- Agricultural Sciences Building Addition, WVU
- Engineering Science Building, East Wing Addition, WVU
- Engineering Research Building, WVU
- National Research Center for Coal and Energy, WVU
- Student Leader Housing, WVU
- Gali Laboratory, WVU
- Prichard Hall Renovation, Fairmont State University

#### 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





## ALPHA RESUMES

James A. Davison, AIA | Vice President, Architect

### EMPLOYMENT HISTORY

1977 – Current Alpha Associates, Inc.  
1976 – 1977 Carl G. Baker, Architects  
1974 – 1976 Architectural Firm of Laurie and Green  
1966 – 1974 Michael S. Molnar Associates

### EDUCATION

Pennsylvania State University  
Bachelor of Architecture; 1973

### QUALIFICATIONS

- **License:** Registered Architect: West Virginia, Pennsylvania, Maryland, Virginia, Ohio
- NCARB Certified

### AFFILIATIONS

- 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
- Main Street Morgantown

### AWARDS

#### West Virginia Society of Architects Design Awards:

- KCAD Professional Office Building
- Morgantown High School
- Engineering Research Building
- Wheeling College Chapel

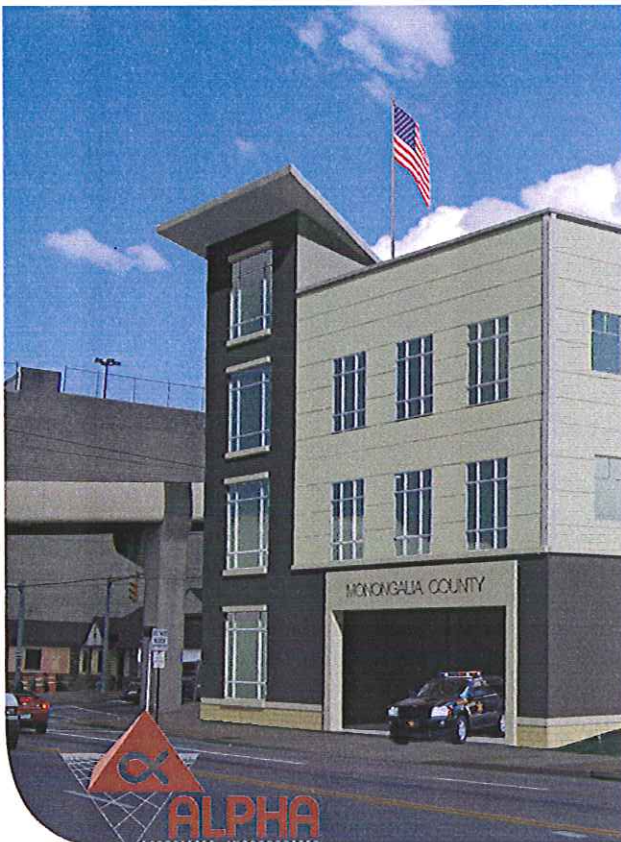


## ALPHA RESUMES

**Rebecca Key, AIA, LEED-AP** | Architect, Associate

### SUMMARY

Ms. Key has worked in the architectural field for over 34 years. She is Project Architect/Project Manager for numerous architectural designs at Alpha Associates, Incorporated. Ms. Key is involved from the programmatic stages and schematic designs all the way through construction documents to construction administration.



### PROFILE

Broad-based responsibilities in the following areas:

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

### PROFESSIONAL HIGHLIGHTS

#### Architectural Design:

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



## ALPHA RESUMES

Rebecca Key, AIA, LEED-AP | Architect, Associate

### EMPLOYMENT HISTORY

2000 – Current Alpha Associates, Incorporated  
1983-1999 Alexander Key and Associates  
1978-1983 Webster Clothes; Director of Store Planning

### EDUCATION

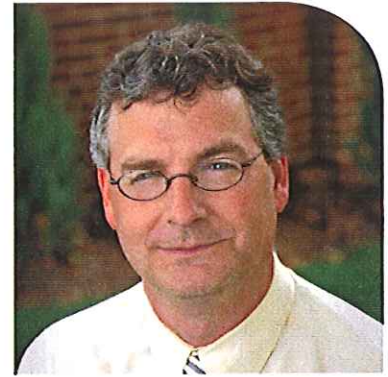
University of Maryland  
Bachelor of Architecture; 1977  
Maryland Institute College of Art  
Coursework in Furniture Design; 1986-1987

### QUALIFICATIONS

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

### AFFILIATIONS

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

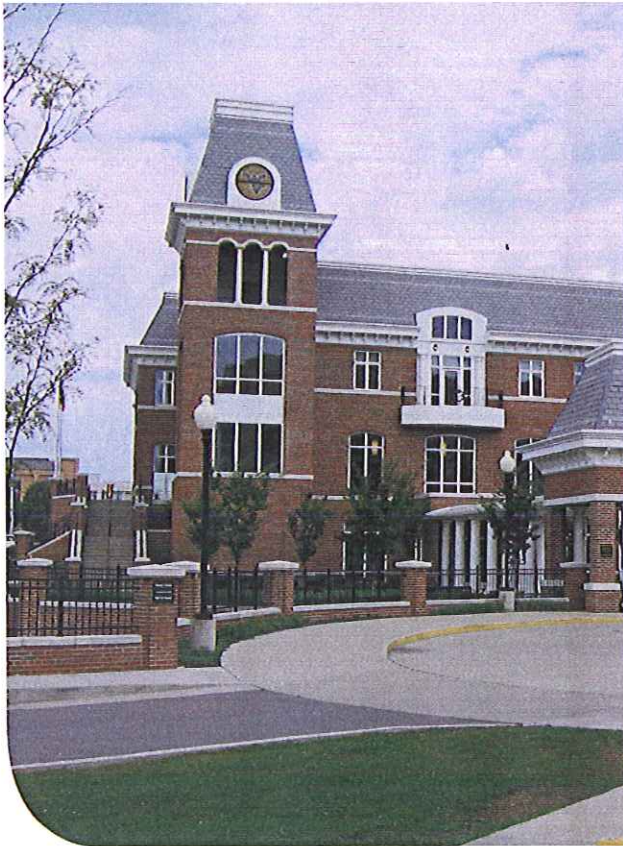


**ALPHA RESUMES**

**Charles Branch, PE** | Principal, Civil Engineer

**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**

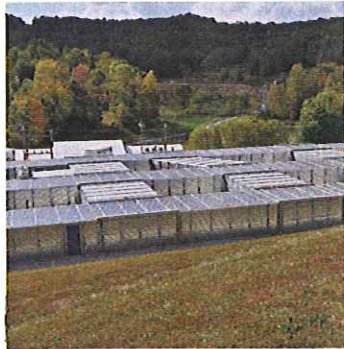
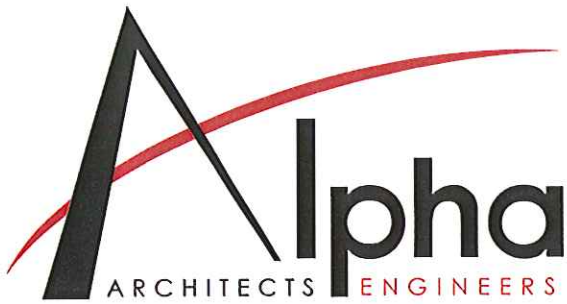
Broad-based responsibilities in the following areas:

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

**PROFESSIONAL HIGHLIGHTS**

**Civil Engineer/Project Manager:**

- WVU Parking Lot 81 Renovations; Morgantown, WV
- WVU Doll's Run Burn Room; Morgantown, WV
- WVU Alumni Center Parking Lot; Morgantown, WV
- WVU Alumni Center Storm Water Management; Morgantown, WV
- WVU Evansdale Redevelopment; Morgantown, WV
- WVU Health Sciences Center Eastern Division; Martinsburg, WV
- Blackshere Bridge; Mannington, WV
- WVDOH I-77 Welcome Center; Williamstown, WV
- WV Medal of Honor Recipients Plaza; Hazelton, WV
- Lewis County High School Bridge; Weston, WV
- Wyoming County Route 10 Relocation; Wyoming County, WV
- Fairmont Federal Credit Union; Bridgeport, WV



## ALPHA RESUMES

Charles Branch, PE | Principal, Civil Engineer

### EMPLOYMENT HISTORY

1992 – Current Alpha Associates, Incorporated  
1988-1992 Reimer, Muegge, & Associates, Inc.

### EDUCATION

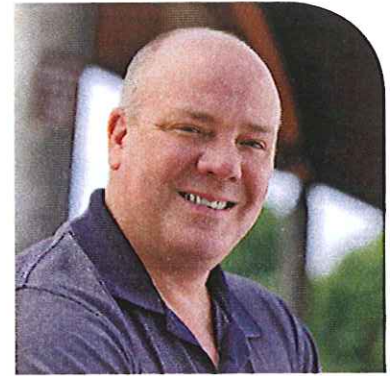
West Virginia University  
Bachelor - Civil Engineering; 2000  
Fairmont State College  
Bachelor Architectural Engineering Technology; 1988

### QUALIFICATIONS

- **License:** Professional Engineer: West Virginia

### AFFILIATIONS

- WV Society of Professional Engineers
- National Society of Professional Engineers

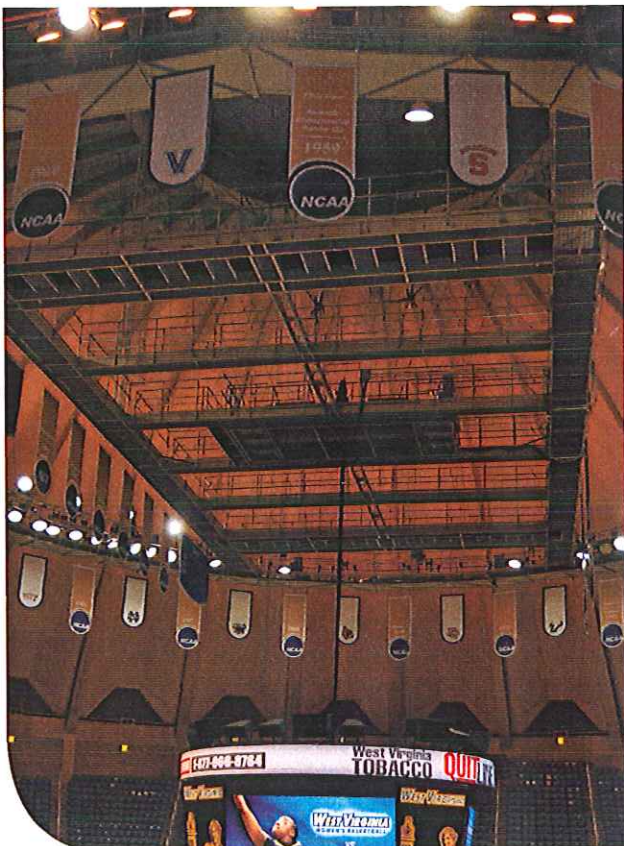


## ALPHA RESUMES

**Charles B. Luttrell, PE** | Principal, Structural Engineer

### SUMMARY

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



### PROFILE

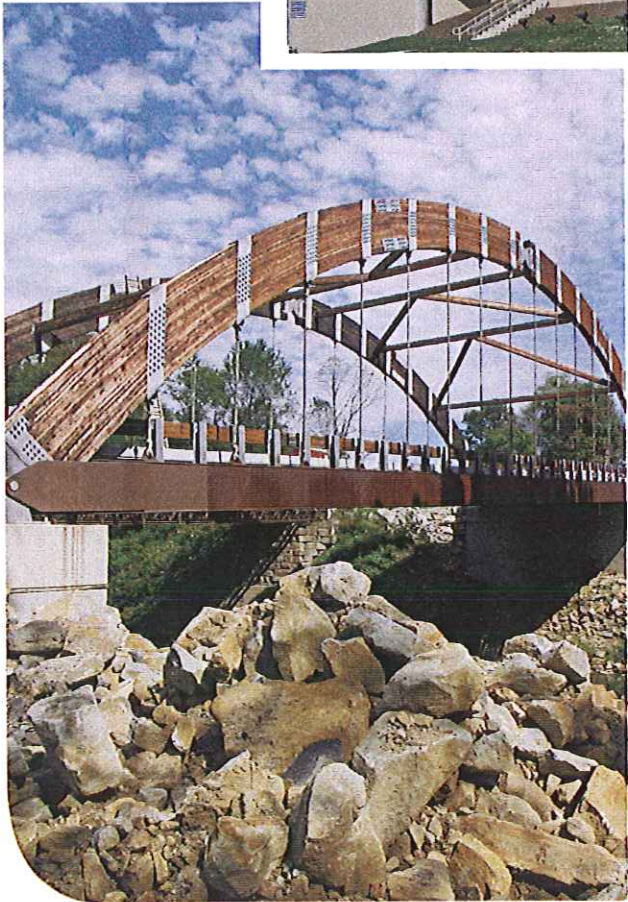
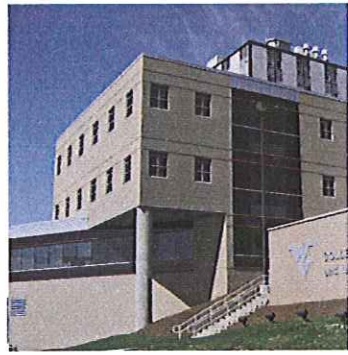
Broad-based responsibilities in the following areas:

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

### PROFESSIONAL HIGHLIGHTS

#### Structural Engineer:

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



## ALPHA RESUMES

**Charles B. Luttrell, PE** | Principal, Structural Engineer

### EMPLOYMENT HISTORY

- 1996 – Current Alpha Associates, Incorporated
- 1995-1996 Larry D. Luttrell, PE, Ph D
- 1991-1994 West Virginia University
- 1990-1991 WVU Constructed Facilities Center

### EDUCATION

- West Virginia University
- Masters - Structural Engineering; 1995
- Bachelor - Civil Engineering; 1993

### QUALIFICATIONS

- **License:** Professional Engineer: West Virginia, Maryland, Pennsylvania

### AFFILIATIONS

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

### Research Experience

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



Currently in its 65th 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 \$530 million in MEP, Civil and Structural 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.



Services offered include:

- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Life Safety / Fire Protection Engineering
- Communications Engineering
- Energy Management
- Civil Engineering
- Structural Engineering
- Industrial Engineering
- Surveying
- Construction Phase Services
- Commissioning



Health care reform, shrinking budgets, downsizing, and risk management all add up to major changes in building programs. Codes are constantly evolving, construction budgets shrinking, and liability concerns growing. Yet utility and building systems may not be adequate to meet the exploding needs of rapidly advancing medical and communications technologies.

Whether anticipating space renovations, infrastructure upgrades, or new construction, money can be saved by involving H.F. Lenz Company in the early stages of project planning. Our engineers will analyze infrastructure needs, identify their cost

impact, and investigate cost effective alternatives, all of which helps to establish an appropriate budget and avoid costly surprises.

The location, condition, and capacity of mechanical and electrical systems can greatly affect not only construction costs but its timing as well. By carefully examining present needs, steps can be taken to reduce future costs, budget for system replacement or upgrade in long-range plans, and reduce liability risks.

H.F. Lenz Company's engineers offer non-biased solutions based on a facility's overall requirements and a thorough understanding of hospital codes.

Our services include:

- Infrastructure evaluations and master plan
- Mechanical, electrical, and medical gas systems
- Life safety and fire protection systems
- Indoor air quality evaluations
- TB/isolation room upgrades
- Code evaluations
- Communications systems / computer rooms
- Building structural design





To better serve our clients, the H.F. Lenz Company has organized the firm into several multi-discipline design teams that are dedicated to specific market types or project types. Each team has the necessary resources and multi-discipline staff—HVAC, electrical, plumbing, and fire protection/life safety—to successfully complete both small and large projects. Our teams are headed by one or more principals of the firm who specialize in a particular market segment or type of engineering project. Our clients benefit from this approach because the team is focused, experienced, and dedicated to one type of project—the clients’ project.



		Surgery	Diagnostic	Patient Rooms	Emergency	Education & Support	Labor & Delivery	ICUs	Cancer Related	Cardiovascular Related
Altoona Hospital	\$ 120M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Children's Hospital	\$ 21M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Children's National Medical Center	\$ 60M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cookcough Health Systems	\$ 80M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indiana Regional Medical Center	\$ 40M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Miner's Hospital	\$ 9M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mt. Nittany Medical Center	\$ 40M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nason Hospital	\$ 6M	✓	✓	✓	✓	✓	✓	✓	✓	✓
Susquehanna Health System	\$ 20 M	✓	✓	✓	✓	✓	✓	✓	✓	✓
The Medical Center, Beaver	\$ 70 M	✓	✓	✓	✓	✓	✓	✓	✓	✓
UPMC Lee Regional Patient Care	\$ 22 M	✓	✓	✓	✓	✓	✓	✓	✓	✓
WVUH Ruby Memorial Hospital	\$ 44 M	✓	✓	✓	✓	✓	✓	✓	✓	✓

Our Health Care Team is headed by John R. Boderocco, P.E., Principal and President, Steven J. Gridley, P.E., Principal and Senior Vice President; and Timothy M. Earhart, P.E., Principal. Our team’s experience includes new construction, renovation projects, and evaluations and studies. Their experience ranges from renovations of individual departments, to modifying or replacing building-wide mechanical, electrical, and fire protection/life safety systems. Health care experience includes hospitals, nursing homes, assisted living facilities, laboratories, and medical office suites. Projects range in size from 500 to 850,000 sq. ft., are wide-spread throughout the eastern states, and total anywhere from \$5,000 to \$130,000,000. The H.F. Lenz Company’s responsiveness and technical expertise have allowed us to develop long-term business relationships with our health care clients.

**ASHRAE SPC 189.2, DESIGN, CONSTRUCTION, AND OPERATION OF GREEN HIGH PERFORMANCE HEALTH CARE FACILITIES**

Timothy M. Earhart, P.E., Principal, is a member of TC 9.6, Infectious Diseases Subcommittee and SPC 189.2 Committee which are evaluating the following:

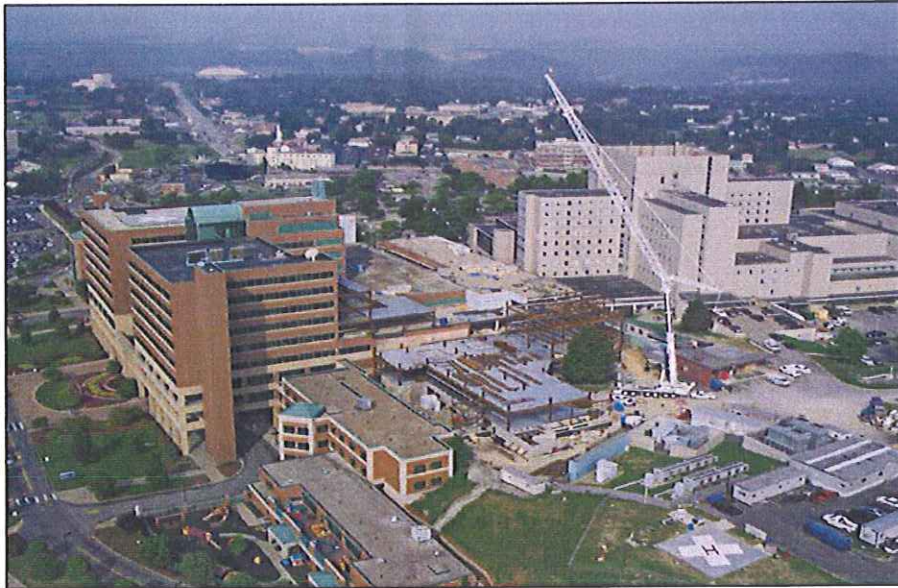
- Health care baseline energy consumption better than ASHRAE
- High performance building costs vs. benefits
- Energy Star
- New rating system
- Elimination of city water cooled equipment
- Low flow vs. sanitary concerns in health care
- Commissioning requirements in health care (2010 requires basic commissioning)
- Maintenance design minimum requirements
- Lighting
- Energy consumption
- 10% less than 90.1
- 20% less in exterior lighting
- Natural lighting
- Standard 170 adopted for health care for minimum ventilation standards - IAQ design
- Integrated design requirements - BIM
- Environmental impact of materials
- Turn down ration of 30% on VAV systems
- High efficiency chillers - .52 kW/ton .40 kW/ton IPLV
- 90% efficient boilers

Our firm has been a member of the U.S. Green Building Council since 2000 and we currently have 19 LEED® Accredited Professionals on staff. Our experience includes 40 projects that have attained various levels of LEED Certification and 40+ projects currently registered for LEED Certification, in total over 9 million sq. ft. of facilities.



H.F. LENZ  
COMPANY

*West Virginia University Hospitals*  
*Morgantown, West Virginia*



**RUBY MEMORIAL HOSPITAL  
RENOVATION AND ADDITION**

Ruby Memorial Hospital is one of three hospitals that make up the West Virginia University Hospitals. These hospitals jointly serve the communities of West Virginia and the surrounding region. Ruby Memorial Hospital is a modern facility that houses the Ruby Day Surgery Center, comprehensive cardiac care facilities, and the most current medical imaging system in the state of West Virginia.

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, civil, and structural engineering services for renovation projects totaling more than 47,000 sq.ft. and additions totaling more than 176,000 sq.ft. These projects included:

- New MRI suite
- New boiler/chiller plant to serve a total of 878,000 sq.ft. of space
- New conference center with dining facilities
- New building loading docks
- New surgical intensive care unit
- New pediatric intensive care unit
- New skilled nursing unit
- New long term acute care
- New post anesthetic care unit
- Ten new operating rooms and surgery waiting and two renovated operating rooms
- Renovated materials management area
- New chapel

The projects were completed in 2005 at an estimated construction cost of \$44.3 million.



H.F. LENZ  
COMPANY

*Tri-State Professional Complex  
Martinsburg, West Virginia*



**NEW MEDICAL OFFICE BUILDING**

H.F. Lenz Company provided the mechanical, electrical, plumbing, and fire protection engineering services for a new 30,000 sq.ft. medical office building that houses The Center For Orthopedic Excellence, Tri-State Surgery Center and Premier Physical Therapy and includes additional space for future tenants. The building features various outpatient and clinical spaces and a rehabilitation area with a therapy pool.

Construction was completed in 2006.



H.F. LENZ  
COMPANY

*Veterans Affairs Medical Center  
Huntington, West Virginia*

**PSYCHOLOGICAL RESIDENTIAL REHABILITATIVE TREATMENT PROGRAM (PRRTP)  
FACILITY**

The H.F. Lenz Company is providing mechanical, electrical, plumbing, fire protection and structural engineering services for the Huntington Veterans Affairs Medical Center for a new Psychological Residential Rehabilitative Treatment Program (PRRTP) facility. The new 17,000 sq.ft. facility is currently under design and will be a 3-story building comprising the two existing residential buildings with a new connecting addition. The existing buildings shall be gutted and refitted in accordance with the new space program, including new MEP systems utilizing existing steam, water, and electrical services. The floor plan includes 19 beds with toilet rooms, recreational areas, group therapy, reception area, dining with re-therm kitchen, offices, and support spaces.

Additional features of the project include:

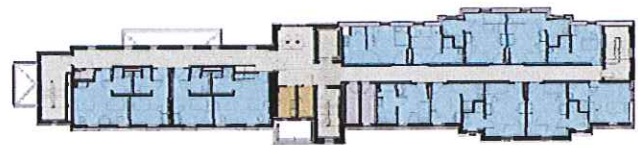
- Central hot water and chilled water system to serve five AHUs and terminal heating units
- New generator for emergency power
- New elevator and stairwell
- The new addition shall have sunshaded glass

Construction is estimated to be completed in 2012.



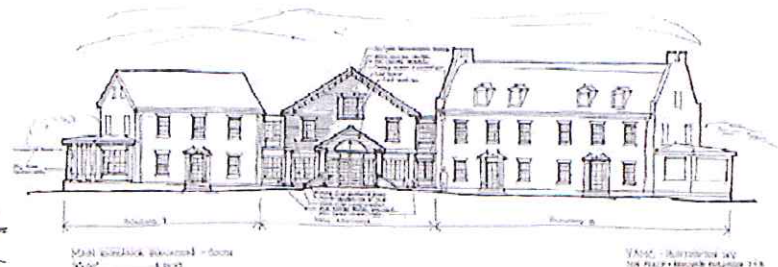
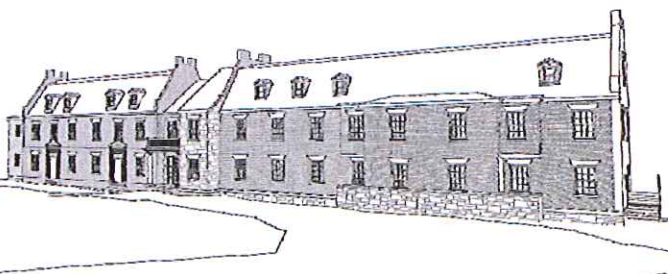
GRADUATION	COMMON AREAS	FUTURE FIT-OUT	PATIENT AREAS	STAFF	SUPPORT SERVICE

FIRST FLOOR AREA PLAN



GRADUATION	COMMON AREAS	FUTURE FIT-OUT	PATIENT AREAS	STAFF	SUPPORT SERVICE

SECOND FLOOR AREA PLAN





H.F. LENZ  
COMPANY

## Children's National Medical Center Washington, D.C.

### ENGINEER-OF-RECORD

Children's National Medical Center, a 279-bed, 750,000 sq.ft. pediatric hospital, is nationally and internationally recognized as a leader in the development of innovative new treatments for childhood illness and injury. It is ranked among the top children's hospitals in America by U.S. News and World Report.

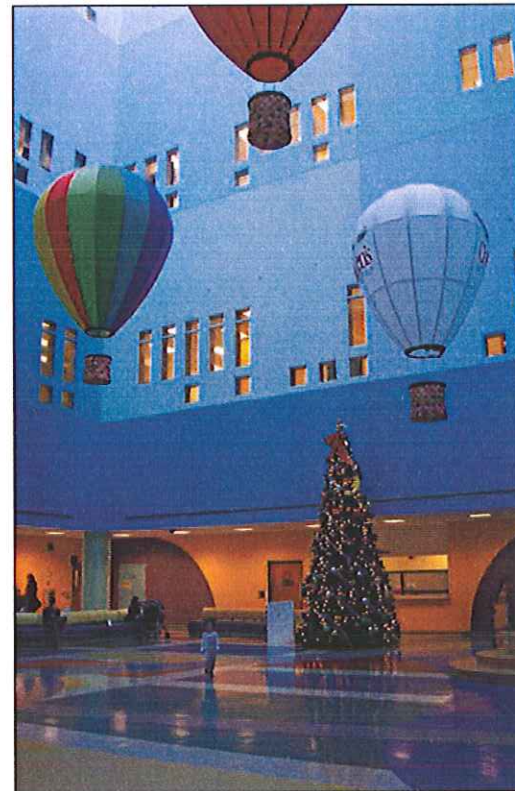
As the facility's Engineer-of-Record, H.F. Lenz Company provided the mechanical and electrical engineering services for implementing a \$100,000,000 master plan.

Completed projects included:

- 150,000 sq.ft patient tower expansion to house NICU, CICU, Neuro, and medical surgery beds. This patient tower consists of single bed patient rooms
- Fifth and Sixth Floor East Addition Shell
- New 6,000 ton chiller plant
- MRI Expansion and renovation
- Facility-wide electrical system study
- New 13.2 kV primary electrical distribution system
- Catheterization lab addition which includes two cath labs and accompanying support services space (new 12,000 sq.ft. addition)
- Speech and Hearing Center expansion and renovation
- Anesthesiology offices
- Blood Donor Center
- Sleep Lab renovations
- New 12,000 sq.ft. perioperative expansion
- Upgrade and expansion of the animal research facility
- Building wide fire alarm replacement and smoke control system upgrade (\$2M)
- Renovation of the existing MRI unit and two CT Scan units to accommodate increased patient volume
- Multi-year Air Handling Unit Replacement Program
- Renovation and upgrade of the Animal Lab in support of a National Institute of Health (NIH) grant
- New 13,000 sq.ft. Perioperative Suite
- New 20,000 sq.ft. Outpatient Building
- New Data Center for Main Computer Operations
- Decontamination Facility



Established in 1870, Children's National is still the only health system in the Washington, DC Metro area devoted exclusively to the healthcare of children.

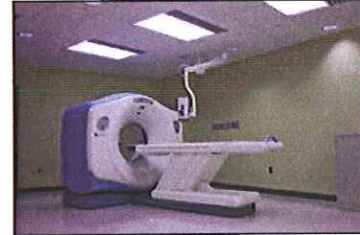


H.F. Lenz Company provided the engineering services for the design of a cable retraction (hoist) system. The staff enjoys easy and secure access for a variety of options to display the six balloons in the lobby using a key operated control panel.



H.F. LENZ  
COMPANY

**UPMC Lee Regional  
Johnstown, Pennsylvania**



**NEW REGIONAL PATIENT CARE CENTER**

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, telecommunications, civil, and structural engineering services, as well as construction phase services and commissioning for a new six-story, 105,500 sq.ft., \$25 million dollar Patient Care Center for UPMC Lee Regional. The new state-of-the-art facility includes:

**Emergency Floor**

- X-ray and radiology areas equipped with physician access to computerized software for faster interpretation of x-rays
- CT Scanning Area
- Security room
- Quiet room for doctors to confer with patients' families
- Exam rooms equipped with TV and telephone
- Reception and waiting area (with child play area)
- Vending area

**Maternity Floor**

- Level III Neonatal Intensive Care Unit to accommodate eight babies (Unit is located on the same floor as mothers' rooms)

- Six labor, delivery, and recovery suites equipped with special exam lighting that can be concealed in the ceiling, and Jacuzzi tubs in each suite
- 16 private postpartum/gynecological rooms
- Dedicated caesarean section surgical suite
- Security locks with card access for baby areas
- Large waiting area for families

**Orthopedic Floor**

- 29-bed rehabilitation unit with private and semi-private rooms
- Eight private and one semi-private acute orthopedic rooms
- Dining area with kitchenette and adjustable tables to accommodate wheel chairs
- Large gymnasium with special "apartment" area for patients to practice activities of daily living
- Hairstyling area equipped for a hairstylist that comes in and works with patients
- Recreation room with TV and activities area
- Special shower accommodations for disabled patients

Construction was completed in 2003.



### HEALTH SERVICES WING

H.F. Lenz Company provided the engineering services for the 15,000 sq.ft. Health Service Second Floor Wing addition for Medical Oncology and Phlebotomy. The new addition included a Chemotherapy area consisting of 7 private treatment rooms. The suite also has a pharmacy including a Class 7 Chemo Mixing Room, and an ante room.



### LINEAR ACCELERATOR

H.F. Lenz Company also provided the engineering services for a new linear vault which replaced the original linear accelerator vault. Features of the project included:

- New dedicated air handling unit to serve the vault
- New chilled water air handling unit (replaced a DX air handling unit) to serve exam and office areas
- Self contained chiller was added until the existing chilled water plant and distribution system is modified in a future project.
- Filtrine chiller was added to supply the linear accelerator
- Power for the existing vault was temporarily fed from another source so the permanent power for the new vault could be provided, which allowed testing of the new linear accelerator while continuing use of the existing linear accelerator
- New panelboards were added from existing distribution switchboard



### ADDITIONAL PROJECTS HAVE INCLUDED:

- Design for 42,000 sq.ft. East Wing Addition
- AHU #7 replacement
- Cardio-Pulmonary Medical Gases
- Mammography Suite study
- Lasic Surgery Room
- Emergency Department renovations
- 12 kV primary distribution system replacement study
- Analytic lab UPS system
- Morgue renovations
- HVAC evaluation of central scheduling area
- Tomo AHU replacement
- CT scan AHU repairs
- TVSS design
- Cooling tower replacement
- Generator #3 replacement
- CT scanner feeder
- Cath lab AHU evaluation
- Evaluation of natural gas service line to kitchen
- New linear accelerator
- Pharmacy study
- Special procedure suite evaluation
- MEP lab revisions
- HVAC recommendations for four offices
- Radiology reading area – structural modifications
- Prosthetics oven ventilation
- X-ray equipment review
- Temperature and humidity controls study for seven ORs
- Replacement of AHU serving MRI computer room
- Evaluation of HVAC systems for Emergency Department
- Study of DDC controls for eight ORs
- SPU replacement study
- AHU replacement study
- UPS evaluation
- Oncology Center design



**MILLENNIUM PROJECT & HAMOT HEART INSTITUTE**

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, and telecommunications design services for the \$25 million Hamot Medical Center expansion project. This project doubled the space of the Emergency Department, created new operating rooms, opened a unit specifically designed for hip and knee replacement patients, and included the construction of a free-standing building for the Hamot Heart Institute.



Innovative features of the project include:

- The renovated Emergency Department includes 32 Private treatment rooms and a Radiology Suite.
- The expanded operating room features four new suites each equipped with the latest technologies to perform minimally invasive surgery
- The Hip and Knee Center was designed to help patients feel more at home and relaxed during their recovery.
- The new unit features 11 private rooms and special multipurpose areas for group therapy, as well as dining areas. To help patients practice real life mobility, the new unit includes features such as an indoor putting green and a “real” indoor car.
- The Cardiac Rhythm Center has three new, state-of-the-art electrophysiology labs. This was designed to be the region’s largest and most sophisticated facility, and includes imaging and monitoring facilities to perform complex studies and procedures to treat cardiac rhythm problems.
- The Hamot Heart Institute features cardiac fitness, education, and rehabilitation services, as well as physician offices and outpatient diagnostic services.

Additional features of the project included:

- New HVAC system design
- New electrical design, including power, lighting, data and telephone, music system and nurse call
- Plumbing and Fire Protection design including both a wet and dry sprinkler system

This project was completed in 2003.







H.F. LENZ  
COMPANY

*Veterans Affairs Medical Center*  
*Erie, Pennsylvania*

**LONG TERM CARE RENOVATIONS**

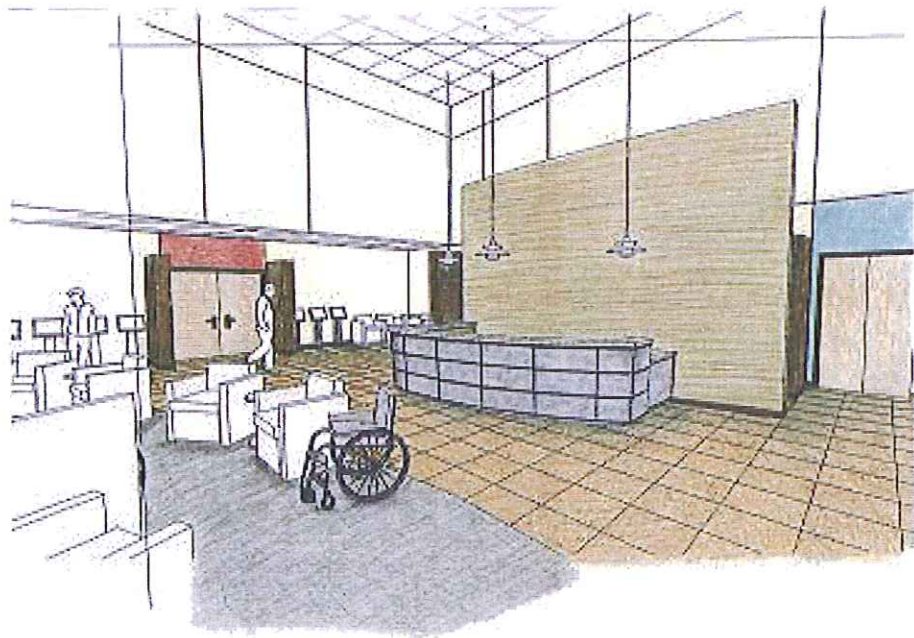
This project involved the total renovation of one floor (12,373 sq.ft.) in Building 1 of the Erie VAMC to transform the Long Term Care areas from a clinical environment to a community/home environment for our veterans. The project also incorporates a Hospice Unit in one section of the renovated floor.

H.F. Lenz Company provided the mechanical, electrical, plumbing and fire protection engineering services for the project, which included the following:

- Satellite kitchen area
- Isolation rooms
- New HVAC system
- New fire alarm system
- Patient monitoring system
- New power panels
- New plumbing fixtures throughout

A complex phasing scheme was required as one-half of the floor had to remain in operation at all times. In addition, the HVAC and plumbing systems on the renovated floor also served one floor below and two floors above, which needed to remain in operation.

The \$3.3 million project was completed in 2010.





**Allegheny General Hospital  
Pittsburgh, Pennsylvania**

- Congestive heart failure research renovations (8th floor)
- Linear Accelerator equipment change-out
- CT Simulator equipment change-out
- Operating room washer
- Central supply sterilizer
- Same day surgery washer
- CT scan equipment change-out
- BSL-3 Lab HVAC study
- ER observation fit-out
- Joint center plumbing and electrical renovation
- Heritage Hall lighting design
- Cardiac Catherization Lab 5 equipment replacement
- New angiography room
- Installation of new ethylene oxide (ETO) sterilizer in central supply
- Pharmacy renovations
- Renovations for a new bi-plane angiography suite
- Re-routed oxygen line from bulk farm to inside the facility

**Altoona Hospital  
Altoona, Pennsylvania**

- Relocation of Medical Outpatient Services to the Outpatient Building
- Linear accelerator replacement
- Master plan for consolidation of Altoona Hospital and Bon Secours Holy Family Regional Health System
- New seven-story outpatient tower and atrium



**Bon Secours Holy Family Regional Health System.**  
*H.F. Lenz Company has completed approximately 80,000 sq.ft. of renovation projects throughout the entire hospital facility*



**Altoona Hospital.** *The addition and renovation project received a Vista Award Honorable Mention presented by the American Society for Health Care Engineering.*

- 250,000 sq.ft. addition
- New and renovated operating rooms
- Emergency room renovations
- New central heating/cooling plant
- Renovation of two patient buildings
- Isolation rooms
- OR exhaust system
- OR air flow study
- Tower building study

**Bon Secours Holy Family  
Regional Health System  
Altoona, Pennsylvania**

- Master plan for HVAC upgrades
- Comprehensive review of HVAC systems
- Bio-terrorism evaluation of 350,000 sq.ft. facility
- Skilled nursing unit renovation
- Renovation of geriatric psychiatric unit
- MRI suite renovation
- Physical therapy renovations
- HVAC Bioterrorism Study

**Bradford Regional Medical Center  
Bradford, Pennsylvania**

- New boiler plant
- Electrical service modifications
- Kitchen wall structural evaluation
- ICU/CCU recovery renovations

**Buffalo General Hospital  
Buffalo, New York**

- Installation of new helipad and support services



**Charles Cole Memorial Medical Center  
Coudersport, Pennsylvania**

- New 8,000 sq.ft. outpatient clinic
- New 34,000 sq.ft. medical office building
- New 6,000 sq.ft. Women's Health Care Center

**Children's Hospital of Pittsburgh  
Pittsburgh, Pennsylvania**

- Master plan studies for upgrading of mechanical, electrical, sprinkler, and fire alarm systems
- 23 renovation projects
- Fire alarm replacement
- New sprinkler system
- Chilled water plant
- Medical gas system replacements
- New outpatient surgery facility

**Children's National Medical Center  
Washington, D.C.**

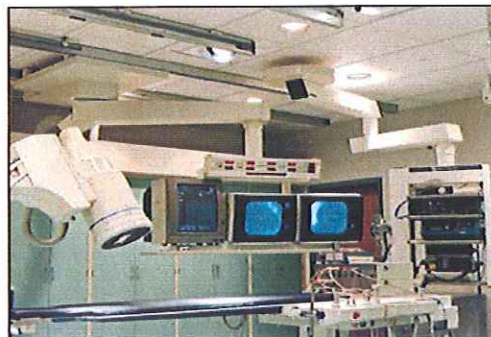
- Two MRI/two CT suites
- Double cath lab suite
- Electrical system study
- Electrical system commissioning services
- Blood donor center
- Master plan for a new 250,000 sq.ft. addition
- Master plan for the renovation of the existing 600,000 sq.ft. hospital

**Christiana Hospital  
Newark, Delaware**

- Peer Review
- Operating Room Phase 3 renovations



*Conemaugh Memorial Medical Center. A new emergency trauma center, pharmacy and maternity ward are part of the five-story, 250,000 sq.ft. addition.*



*Children's Hospital of Pittsburgh. Sophisticated engineering design integrates medical gas and electrical services directly into CHP's cardiac catheterization equipment.*

**Clearfield Hospital  
Clearfield, Pennsylvania**

- Mechanical/electrical renovations

**Conemaugh Health Systems  
Johnstown, Pennsylvania**

- Chilled water plant study
- Phase I
- Morgue ventilation
- Mechanical upgrade
- Good Samaritan Educational Library

**Conemaugh Memorial Hospital  
Johnstown, Pennsylvania**

- Master plan to integrate Conemaugh Hospital and UPMC Lee facilities for efficient operation of hospital functions
  - Master plan evaluation for the coordination and upgrade to 850,000 sq.ft. campus
- Projects include:
- New Level 1 Trauma Center
  - New Maternity Suites
  - Oncology Center
  - Outpatient Surgery Center

**Conemaugh Memorial Medical Center  
Johnstown, Pennsylvania**

- \$40 million, 250,000 sq.ft. trauma center addition
- Executive dining suite
- CAT scan area
- O.R. renovations
- Pharmacy
- Radiography suite
- Mechanical, plumbing and electrical upgrades



**Divine Providence Hospital  
Williamsport, Pennsylvania**

- Oxygen service investigation
- 4th floor Wound Center
- Oncology Department CT Scan
- Isolation Room

**Frederick Memorial Hospital  
Frederick, Maryland**

- Medical Staff and PPHP Interior renovations
- Wound Care & Diabetes

**Frick Hospital  
Mount Pleasant, Pennsylvania**

- Topographical survey for Emergency Department entrance

**Fulton County Medical Center  
McConnellsburg, Pennsylvania**

- Mechanical/electrical renovations

**Good Samaritan Medical Center  
Johnstown, Pennsylvania**

- Five-story, 24,500 sq.ft. addition
- Renovations to 59,500 sq.ft. wing

**Hamot Medical Center  
Conneaut, Ohio**

- New 9,800 sq.ft. outpatient clinic

**Hamot Medical Center  
Erie, Pennsylvania**

- Ambulatory Surgery Center
- Isolation room study
- Facility-wide sprinkler system
- North wing domestic water study
- Endoscopy suite renovation



*Hamot Medical Center. The Millenium Project consisted of a \$25 million expansion to the existing building.*



*Heritage Health System, The Medical Center. An MRI suite, a catheterization lab, and outpatient surgery facilities are part of the new 18,500 sq.ft. addition.*

- Behavioral Health Dept. air handling unit
- Dialysis Unit renovation
- New four-story, 80,000 sq.ft. Heart Institute
- Feasibility Study/Millennium 2000 Project
- New chiller/cooling tower

**Harmarville Outpatient  
Rehabilitation Center  
Latrobe, Pennsylvania**

- New 12,000 sq.ft. satellite facility

**Heritage Health System, The Medical Center  
Beaver, Pennsylvania**

- Facility-wide renovations for patient-focused care program
- MRI addition and associated administrative offices
- Cardiac catheterization laboratory addition
- Outpatient surgery addition
- Recovery area renovation
- Neuropsychiatric unit
- Water service booster system replacement
- Energy evaluation
- Open heart surgery suite
- Sterile processing HVAC study
- Hyperbaric tank installation
- Nuclear medicine renovation
- Electrical substation addition
- Building systems upgrades
- Cancer treatment center
- Labor and delivery suite
- Emergency department
- Sewickley Hospital Survey
- Property survey of entire campus



**Heritage Valley Health System - Sewickley Valley Hospital**  
**Sewickley, Pennsylvania**

- Utility system master plan for the 400,000 sq.ft. hospital

**Indiana Hospital**  
**Indiana, Pennsylvania**

- 193,000 sq.ft. addition and renovations
- Radiology suite renovations
- Relocation and installation of new 22.9 kV and 4.15 kV distribution systems
- Boiler replacement
- Geropsychiatric unit
- ER addition

**James E. Van Zandt**  
**Veterans Affairs Medical Center**  
**Altoona, Pennsylvania**

- Segregate emergency power distribution within the Main Patient Building, Emergency Department, and Ambulatory Surgical Center; included a new 1000 kW generator and automatic transfer switches
- Warehouse building
- New telephone equipment building
- Parking lot addition
- Corrected HVAC deficiencies
- Corrected return air deficiencies
- Corrected air conditioning deficiencies

**J.C. Blair Memorial Hospital**  
**Huntingdon, Pennsylvania**

- Chiller plant replacement
- Deaerator replacement
- Radiology renovation/study
- CT scanner
- Air handling unit replacement
- Bioterrorism study

**Jeanette District Memorial Hospital**  
**Jeanette, Pennsylvania**

- Master plan for a ten year strategic plan for the existing facility
- Operating Room air handling unit
- Kitchen exhaust
- HVAC evaluation
- Mechanical/electrical study of the hospital



*Indiana Hospital. In the past three years, H.F. Lenz Company has recently completed more than 15 projects for Indiana Hospital.*

**Jefferson Memorial Hospital**  
**Ranson, West Virginia**

- Electrical survey of existing hospital
- 5,000 sq.ft. Emergency Department addition
- Lab renovations
- New Nuclear Medicine Suite

**Jersey Shore Hospital**  
**Jersey Shore, Pennsylvania**

- Hospital Master plan
- Building renovations

**Johnstown Regional MRI Center**  
**Johnstown, Pennsylvania**

- Temporary loading dock
- New line holding area
- Topographic survey
- Design review services

**Kane Community Hospital**  
**Kane, Pennsylvania**

- Master plan for the renovation and/or replacement facility

**Latrobe Hospital**  
**Latrobe, Pennsylvania**

- Plumbing systems for 3 buildings
- Laboratory HVAC system study
- HVAC system study for Norvely Family Practice
- New outpatient rehabilitation center



- Lock Haven Hospital**  
Lock Haven, Pennsylvania
- 2nd floor Dialysis Center
  - Film storage
  - Emergency Room study

- Martinsburg Medical Office Building**  
Martinsburg, West Virginia
- New 30,000 sq.ft. medical office facility

- Meadville Medical Center**  
Meadville, Pennsylvania
- Report outlining the addition of a cancer treatment department to the existing hospital building

- Metro Health Center**  
Erie, Pennsylvania
- Facility sprinklering
  - HVAC studies for boiler and chiller systems
  - Geriatric psychiatric unit
  - Fire alarm upgrade

- Medwell Urgent Care Facility**  
Ebensburg, Pennsylvania
- New 4,000 sq.ft. outpatient facility

- Medwell Urgent Care Facility**  
Johnstown, Pennsylvania
- M/E design for a 3,700 sq.ft. outpatient facility

- Millcreek Community Hospital**  
Erie, Pennsylvania
- Employee entrance design
  - Operating Room chiller design
  - Humidity study of Operating Rooms



*Mount Nittany Medical Center. A new linear vault was added to replace the original linear accelerator vault.*



*Miners Hospital of Northern Cambria. This new, modern facility, completed in September 1999, replaced Northern Cambria County's 30-year-old hospital.*

- Miners Hospital**  
Hastings, Pennsylvania
- Waterline replacement
  - 68,000 sq.ft., \$9.5 million replacement hospital

- Mount Nittany Medical Center**  
State College, Pennsylvania
- 15,000 sq.ft. Health Service Second Floor Wing addition for Medical Oncology and Phlebotomy
  - New linear vault added to replace the original linear accelerator vault
  - AHU #7 replacement
  - Cardio-Pulmonary Medical Gases
  - Mammography Suite study
  - Lasic Surgery Room
  - Emergency Department renovations
  - 12 kV primary distribution system replacement study
  - Analytic lab UPS system
  - Morgue renovations
  - HVAC evaluation of central scheduling area
  - Tomo AHU replacement
  - CT scan AHU repairs
  - TVSS design
  - Cooling tower replacement
  - Generator #3 replacement
  - CT scanner feeder
  - Cath lab AHU evaluation
  - Evaluation of natural gas service line to kitchen
  - New linear accelerator
  - Pharmacy study
  - Special procedure suite evaluation
  - MEP lab revisions
  - HVAC recommendations for four offices



- Radiology reading area – structural modifications
- Prosthetics oven ventilation
- X-ray equipment review
- Temperature and humidity controls study for seven ORs
- Replacement of AHU serving MRI computer room
- Evaluation of HVAC systems for Emergency Department
- Study of DDC controls for eight ORs
- SPU replacement study
- AHU replacement study
- UPS evaluation
- Design for 42,000 sq.ft. East Wing Addition
- Oncology Center design

**Muncy Valley Hospital**  
**Muncy, Pennsylvania**

- Physical Therapy relocation
- Dementia Unit Feasibility Study
- Mobile MRI Outlet
- Medical Arts Building Hardwell Offices
- Emergency Treatment Room
- Emergency Room Renovation

**Nason Hospital**  
**Roaring Spring, Pennsylvania**

- New building-wide sprinkler system
- New central chillers, air handling units, and EMS system
- Maternity renovations
- CT scan and diagnostic treatment
- Operating room renovations

**National Institutes of Health**  
**Nuclear Medicine Area**  
**Bethesda, Maryland**

- HVAC upgrade, including replacement of air handling unit, reconfigured ductwork, and backup and emergency power for hood exhaust

**Passavant Hospital**  
**Pittsburgh, Pennsylvania**

- HVAC evaluation
- Fire alarm upgrade

**Plastic Surgical Associates**  
**Johnstown, Pennsylvania**

- New 5,700 sq.ft. medical facility



*Somerset Hospital. The new addition includes an MRI suite and outpatient surgery facilities.*

**The Regional Cancer Center**  
**Erie, Pennsylvania**

- New 18,500 sq.ft. addition
- P.E.T. Scan addition
- Addition of reheat coils to existing HVAC system
- Clinac Room HVAC system evaluation
- Clinac Room air conditioning design
- Power Conditioner HVAC evaluation
- Facility HVAC evaluation
- Radiation area air handling unit replacement
- Replacement of Central Rooftop Unit

**Sharon Regional Health System**  
**Sharon, Pennsylvania**

- Emergency Room expansion and infrastructure improvements
- Radiology addition
- MRI relocation

**Somerset Hospital**  
**Somerset, Pennsylvania**

- Master plan evaluation resulting in Emergency Department isolation rooms
- Complete building energy evaluation
- Renovate mammography and X-ray rooms
- New Catheterization Laboratory
- 20,000 sq.ft. building addition
- Emergency Department
- Complete building energy evaluation
- Renovate mammography and X-ray rooms
- New catheterization laboratory
- South wing renovation
- Oncology Center





**Stratton Medical Office  
Erie, Pennsylvania**

- Renovation/design of HVAC, electrical, plumbing, and sprinkler systems to medical offices

**Susquehanna Health System  
Rural Avenue Campus  
Williamsport, Pennsylvania**

- Renovation of Vascular Center Cardiologists Office
- New nuclear medicine camera
- Chest X-Ray equipment replacement
- Structural evaluation/study of portable Bariatric OR Table
- New Angiography room fit-out and equipment installation
- Structural evaluation for new nuclear medicine camera
- New Vascular Center
- Cardiology Suite Relocation
- Learning Resources Center
- Physicians Lounge
- CT Scan feasibility study
- Cardiology expansion feasibility study
- Structural analysis for removal of linear acceleration route
- Outpatient canopy
- Campus CVSU and Catherization Lab offices
- Humidity Study

**Titusville Hospital  
Titusville, Pennsylvania**

- Renovation/expansion of intensive care unit

**UPMC Bedford Memorial Hospital  
Bedford, Pennsylvania**

- Master plan consisting of addition and renovation and/or complete replacement of facility

**UPMC Lee Regional  
Johnstown, Pennsylvania**

- New Women and Infant Care addition and alteration
- Neonatal intensive care unit



**UPMC Lee Regional.** The project included a six-story, 105,500 sq.ft., \$19 million dollar Patient Care Center.

**University of Pittsburgh Cancer Institute  
John P. Murtha Cancer Center  
Johnstown, Pennsylvania**

- Electrical, plumbing, civil, structural, and surveying services for the new building
- Linear Acceleration addition
- Renovation/addition
- Treatment Center
- First Floor redesign
- Meditation Garden
- CT Simulator revisions
- Electrical Services issues

**Veterans Affairs Medical Center  
Aspinwall Facility  
Pittsburgh, Pennsylvania**

- Electrical upgrade and expansion
- New boiler/chiller plant complex
- Generator feasibility study
- Technical evaluation and Master Plan for the existing site and 13 buildings
- New 240-bed nursing home care unit
- New four-story Intermediate Care Building
- Renovation of three-story administrative building
- Canteen
- Centralized warehouse technical evaluation and design
- Chapel



**Veterans Affairs Medical Center**

**Butler, Pennsylvania**

- Telephone site preparation for 33 buildings
- Chapel
- Library
- Patient bath
- Toilets
- Street lights

**Veterans Affairs Medical Center**

**Clarksburg, West Virginia**

- Electrical design

**Veterans Affairs Medical Center**

**Highland Drive Facility**

**Pittsburgh, Pennsylvania**

- Technical evaluation
- Renovation of nine buildings housing psychiatric and disabled patients
- Centralized laundry
- Patients' dining room
- Fire safety evaluation system
- Water tank evaluation
- Water supply study
- Day care center, Building 14
- Sprinkler system, Building 7
- Retrofit chillers
- Air flow study, Building 1
- Food tray delivery system
- Audio room/booth, Building 2
- Multipurpose Room, Building 4
- HVAC system, Building 13
- Secondary TB Isolation Room, Building 1
- Study of pressurization problem, Building 1 connecting corridors



**VAMC Highland Drive.** The \$38 million renovation project was completed under budget and six months ahead of schedule.



**VAMC Philadelphia.** Our relationship with VAMC Philadelphia began with a comprehensive master plan and preliminary and final design of a \$105 million new construction project.

**Veterans Affairs Medical Center**

**Huntington, West Virginia**

- 600-ton chiller and cooling tower addition
- Complete HVAC renovation and upgrade to Building 12
- Chilled water system upgrade, Building 15

**Veterans Affairs Medical Center**

**Philadelphia, Pennsylvania**

- Upgrade emergency power system, facility wide
- Power factor correction, facility wide
- New 680,000 sq. ft. clinical addition
- New 500-car parking garage
- Technical evaluation
- Chiller study
- New 240-bed nursing home care unit and pedestrian bridge
- New chiller building
- Retrofit of 145,000 sq. ft. in the existing primary building (to 30%)
- Steam line evaluation and replacement
- Relocation of Ward Two South
- Chief of Staff renovation
- Third Floor Research Building renovation
- Upgrade Morgue HVAC, Building 1
- Fire safety evaluation system
- Genitourinary Clinic renovation
- Renovation of two catheterization labs
- Upgrade of Angiography and Cardiac Rooms
- New Eye Clinic
- Orthopedic Clinic renovation
- Relocation of VA Regional Counsel and EEO Offices



- Upgrade 4 West Neurology
- Nursing home care unit addition
- Chilled water pump replacement, Building 1
- Modify HVAC systems for Women's Clinic, Building 1
- Retail store renovation
- TB isolation room and waiting room modifications, Buildings 1 and 2
- Administrative office expansion, nursing home care unit basement
- Chiller addition and CFC changeout, Building 31
- Main chilled water pump upgrade, Building 31
- Chiller system evaluation, Research Building
- Chiller and cooling tower replacement, Research Building
- Renovate rehabilitation medicine service and relocate prosthetics service, Building 1
- Renovate 1E and Ward 3W and modify HVAC systems, Building 1
- Renovate second floor east, Regional council, EEO
- Chiller/cooling tower replacement, nursing home
- Boiler replacement
- Steam line replacement

**Veterans Affairs Medical Center  
Erie, Pennsylvania**

- Pulmonary Care Unit renovation
- Renovation and expansion of specialty clinics
- Installation of UPS in IRM

**Veterans Affairs Medical Center  
Martinsburg, West Virginia**

- Cafeteria/dining hall renovation

**Veterans Affairs Medical Center  
Oakland Facility  
Pittsburgh, Pennsylvania**

- Technical evaluation and Master plan for the existing facility and proposed addition
- New four-story clinical, education, and outpatient addition
- Retrofit of five floors of the existing hospital



**Westmoreland Medical Office Building.** H.F. Lenz Company provided the complete base building mechanical/electrical design for this new 40,000 sq.ft., four-story medical office building.

- Renovation of existing chiller building and installation of two new 750-ton centrifugal chillers
- Animal research building
- Centralized laundry technical evaluation

**Westmoreland Medical Office Building  
Greensburg, Pennsylvania**

- New four-story, 40,000 sq.ft. medical office building, includes spaces for outpatient surgery and physical therapy

**Westmoreland Regional Hospital  
Greensburg, Pennsylvania**

- Shearer Street restriping, topographical survey
- North Washington Street redesign
- Washington Street parking lots
- Topographical survey for entrance area of Emergency Department
- Boiler stack replacement
- Stokes Avenue parking lot design
- Shearer Street parking lot reconfiguration

**West Virginia University  
Health Sciences Center  
Charleston, West Virginia**

- Systems evaluation and design of mechanical/electrical improvements



**West Virginia University Hospitals**

**Ruby Hospital**

**Morgantown, West Virginia**

- \$36 million north/northeast expansion project
- Master plan for the central utilities serving 878,000 sq.ft.
- Engineering design services for a dialysis unit
- Chilled water system study
- Chilled water pump replacement
- Data center emergency generator
- Obstetrics area renovation
- Patient holding area renovation
- Elevator penthouse ventilation

**West Virginia University**

**Robert C. Byrd Health Sciences Center**

**Morgantown, West Virginia**

- 1.2 million sq.ft. building evaluation and Master plan
- Miscellaneous space renovations including oral surgery, morgue, and gross anatomy
- Miscellaneous infrastructure upgrades
- Radio and television services master plan

**Williamsport Hospital**

**Williamsport, Pennsylvania**

- Nuclear Medicine Camera
- OB/GYN 6th Floor
- Pediatric Unit

**Windber Medical Center**

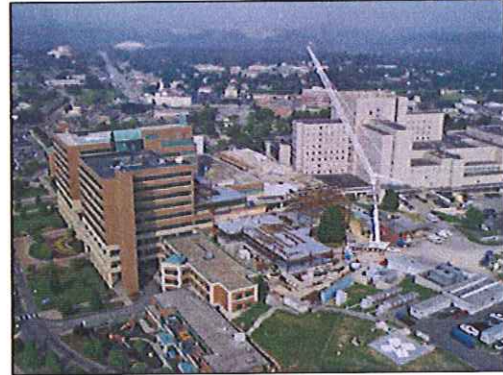
**Windber, Pennsylvania**

- Dr. Dean Ornish Rehabilitation Center
- Hospice addition
- Senior community center
- Outpatient surgery addition
- Maternity renovations

**Women's Christian Association Hospital**

**Jamestown, New York**

- New medical office building
- New 12,000 sq.ft. clinical laboratory
- Renovate kitchen/cafeteria



**WVUH Ruby Hospital.** HFL was hired by West Virginia University Hospitals to perform the mechanical, electrical, plumbing, fire protection and structural engineering services for the \$36 million north/northeast expansion project



Mr. Gridley is responsible for the master planning and design of health care facilities, college and university facilities, industrial facilities, data operations centers, commercial office buildings, utility systems, and renovation/retrofit of historic buildings for private, public, and governmental agencies. He is experienced in the design of chilled water, steam, hot water, refrigeration, air distribution, heat recovery and control systems, uninterruptible power supplies, underground power distribution systems, and interior building distribution systems of all types including building lighting, building security and surveillance, fire protection, normal and emergency power distribution, communication systems, and computer power systems. His health care experience includes:

Ruby Memorial Hospital  
West Virginia University Hospitals  
Morgantown, West Virginia  
*176,000 sq.ft. addition and 47,000 sq.ft. renovation, the project included a new boiler/chiller plant to serve 878,000 sq.ft. of clinical space*

Jefferson Memorial Hospital  
West Virginia University Hospitals  
Ranson, West Virginia  
*Various renovations and additions*

Martinsburg Medical Office Building  
Martinsburg, West Virginia  
*New medical office building*

Hamot Medical Center  
Erie, Pennsylvania  
*– New Heart Institute  
– Millennium Project including new operating rooms, and emergency room expansion  
– New 9,800 square foot Outpatient Facility*

UPMC Lee Regional  
Johnstown, Pennsylvania  
*New 105,000 sq.ft. patient care facility including a Level III Neonatal Intensive Care Unit, Dedicated Caesarean sectional surgical*

*suite, and spacious labor, delivery, and recovery suites, rehabilitation floor and Emergency Department*

Altoona Hospital  
Altoona, Pennsylvania  
*New 153,000 sq.ft. outpatient services tower*

Veterans Affairs Medical Center - Oakland  
Pittsburgh, Pennsylvania  
*New four-story clinical, education, and outpatient addition and renovation of five floors*

Good Samaritan Medical Center  
Johnstown, Pennsylvania  
*Emergency Department renovation, New pain clinic, and New Urgi-Care Center*

Somerset Hospital  
Somerset, Pennsylvania  
*New 46,000 sq.ft. design/build Wheeler Family Medical Clinic housing medical clinics, optometry clinic, audiology clinic, radiological/imaging areas, physical therapy areas including a rehabilitation pool, occupational therapy, fitness/sports training, cardiac rehab, and work hardening therapy area, laboratory space, administration areas, server room*

**Education**

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

**Experience**

H.F. Lenz Company 1979 - Present

**Professional Registration / Certification**

Licensed Professional Engineer in all 50 states and DC

**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



As Project Manager, 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. He is experienced in the design of electrical systems for both new buildings and building retrofits for health care, educational, commercial, government, industrial, residential, and utility-related facilities. Mr. Shumaker is experienced in the design of power distribution systems; emergency power systems and monitoring; uninterruptible power supplies; fire alarm, nurse call, security, sound, and telephone systems; and lighting and emergency lighting systems. His project experience includes:

Ruby Memorial Hospital  
West Virginia University Hospitals  
Morgantown, West Virginia  
*176,000 sq.ft. addition and 47,000 sq.ft. renovation, included new boiler/chiller plant*

Jefferson Memorial Hospital  
West Virginia University Hospitals  
Ranson, West Virginia  
*Various renovations and additions*

Altoona Hospital  
Altoona, Pennsylvania  
*New 153,000 sq.ft. outpatient services tower*

Veterans Affairs Medical Center  
Philadelphia, Pennsylvania  
*– Comprehensive utilities master plan and new construction program for an 11-acre, 25-building medical complex that serves 600,000 veterans*  
*– New 240-bed nursing home care unit*

Veterans Affairs Medical Center,  
Aspinwall Facility, Pittsburgh, Pennsylvania  
*– Comprehensive technical evaluation and master plan for a 30-building medical complex on a 58-acre site*  
*– New 240-bed nursing home*

Heritage Health System, The Medical Center  
Beaver, Pennsylvania  
*– Numerous upgrades, alterations, and additions to a 500-bed medical center*  
*– Electrical system upgrade of entire hospital*

Conemaugh Memorial Medical Center  
Johnstown, Pennsylvania  
*– Master plan for a new 250,000 sq.ft. addition and renovations throughout the existing facility*  
*– Master plan for a new boiler/chiller plant*

Children's Hospital  
Pittsburgh, Pennsylvania  
*– Code search for facility-wide required maintenance program*  
*– Electrical system upgrade for DeSoto Wing*  
*– Bio-terrorism HVAC system upgrade*

Balanced Care Corporation - Various sites including: Beaver Falls, Harrisburg, Dillsburg, and Reading, PA; Danville, Harrisonburg, and Roanoke, VA; Ravenna, Medina, and Steubenville, OH; Martinsburg, WV; Pensacola, New Port Ritchey, Titusville, Rockledge, and Leesburg, FL  
*New assisted living facilities generally ranging from 31,000 sq.ft. to 36,000 sq.ft. with 60- to 66-beds each*

**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, Maryland and West Virginia

**Professional Affiliations**

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



Mr. Bacci is experienced in the design of mechanical equipment rooms involving the installation of gas- and oil-fired steam and hot water boiler systems. He is also experienced in the design of heating, ventilating, and air conditioning systems including steam, hot water, chilled water, refrigeration, and air distribution systems. Mr. Bacci's involvement has encompassed field survey of existing conditions, engineering analyses, systems design, and the preparation of cost estimates. He has been involved in several energy conservation studies. Mr. Bacci also is a responsible Project Engineer. He performs project scheduling duties, coordination and supervision of project design teams, prepares reports and cost estimates, and other project management functions. His projects include:

- Conemaugh Memorial Medical Center**  
Johnstown, Pennsylvania
- Six-story, 220,000 sq.ft. addition and renovations within 25,000 sq.ft. of existing space
  - Multi-building master plan evaluation of utility systems
  - Short Term Ambulatory Surgery relocation
  - Good Samaritan Psychiatric Suite
  - 60+ renovation and/or addition projects

- Altoona Hospital**  
Altoona, Pennsylvania
- 280,000 sq.ft. outpatient services building
  - 50+ renovation and/or addition projects
  - Master plan for the consolidation of Altoona Hospital and Bon Secours Holy Family Regional Health System. Determined the functional space requirements and individual department locations within each facility and developed a capital cost to implement a short-term implementation plan. A long-range feasibility study for a complete replacement facility was also developed

- Hamot Medical Center**  
Erie, Pennsylvania
- New Ambulatory Surgery Facility
  - Millennium Project including new operating rooms and emergency room expansion

- Mount Nittany Medical Center**  
State College, Pennsylvania
- Design of a new 42,000 sq.ft. East Wing Addition
  - New 15,000 sq.ft. Health Services Wing
  - 35+ renovation and/or addition projects

- Homewood Assisted Living Center**  
Martinsburg, West Virginia  
60,000 sq.ft. assisted living center with therapy pool

- Balanced Care Corporation - Various sites**  
including: Beaver Falls, Harrisburg, Dillsburg, and Reading, PA; Danville, Harrisonburg, and Roanoke, VA; and Ravenna, OH  
New assisted living facilities generally ranging from 31,000 sq.ft. to 36,000 sq.ft. with 60- to 66-beds each

- Bon Secours Family Hospital**  
Altoona, Pennsylvania
- Bio-terrorism evaluation of facility.
  - Master plan for HVAC upgrades

- Windber Medical Center**  
Windber, Pennsylvania
- Hospice
  - Medical Arts Building
  - Senior Center
  - Chiller Plant Upgrade
  - Sprinkler Facility

**Education**

Bachelor of Science, Mechanical Engineering Technology, 1986, University of Pittsburgh at Johnstown

**Experience**

H.F. Lenz Company 1997 - Present

Glassman and Associates 1989 - 1997 • Gauthier Alvarado and Associates 1986 - 1989

**Professional Registration / Certification:**

Licensed Professional Engineer in Pennsylvania, Maryland, North Carolina and Virginia

**Professional Affiliations**

American Society of Heating, Refrigerating and Air-Conditioning Engineers • International Society of Pharmaceutical Engineers • Past President, Johnstown Chapter - Pennsylvania Society of Professional Engineers



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. Mr. McKendree's projects include:

Ruby Memorial Hospital  
West Virginia University Hospitals,  
Morgantown, West Virginia  
*176,000 sq.ft. addition and 47,000 sq.ft.  
renovation, project included a new  
boiler/chiller plant to serve 878,000 sq.ft. of  
clinical space*

UPMC Lee Regional Patient Care Center  
Johnstown, Pennsylvania  
*New 105,500 sq.ft. state-of-the-art patient care  
building*

UPMC Lee Regional Cancer Center,  
Johnstown, Pennsylvania  
*New 33,660 sq.ft. cancer care center*

Conemaugh Oncology Center  
Johnstown, Pennsylvania  
*New 26,000 sq.ft. cancer care center*

Hamot Surgery Center  
Erie, Pennsylvania  
*Designed the new automatic fire protection  
system for this new one-story facility*

Hamot Hospital  
Erie, Pennsylvania  
*- New 80,000 sq.ft. Heart Institute  
- Millennium Project including new operating  
rooms, and emergency room expansion*

Windber Medical Center  
Windber, Pennsylvania  
*Evaluated existing fire protection system and  
provided recommendations to bring the facility  
to the minimum requirements outlined in BOCA  
Building Code - 1996 edition followed by the  
redesign and adaptation of the existing fire  
protection system to meet these requirements*

Children's National Medical Center  
Washington, D.C.  
*New additions and renovations*

Indiana Hospital Women's Health Center  
Indiana, Pennsylvania  
*Renovated portion of existing hospital for new  
Women's Health Center*

#### **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





Mr. Jarvis is experienced in all aspects of the design and specification writing of healthcare plumbing systems including extensive medical gas systems, acid waste and vent, plumbing fixture requirements, decontamination chambers and complete plumbing system requirements for health care correctional, institutional, industrial, educational, and commercial facilities. He also has several years of hands-on experience with a variety of field, plumbing, healthcare systems including laboratory, medical gas, and balancing return systems.

Mr. Jarvis's project experience includes:

Heritage Health System, The Medical Center  
Beaver, Pennsylvania  
– *Geriatric/psychiatric unit*  
– *Skilled nursing facility*  
– *Facility-wide renovations for Patient Focused Care Program*  
– *Outpatient surgery addition*  
– *Cardiac catheterization laboratory addition*  
– *Plumbing / Medical Gas design for neuropsychiatric unit*  
– *Recovery area renovation*  
– *Building systems upgrades (Medical Gas)*  
– *Multiple CT Scan renovations*  
– *Linear accelerator renovation*

Hamot Hospital  
Erie, Pennsylvania  
*Plumbing design of the 56,254 sq. ft. millennium addition and renovation project*

Conemaugh Health Systems  
Johnstown, Pennsylvania  
*Plumbing design of the 12,832 sq. ft. ambulatory surgery suite*

Somerset Hospital  
Somerset, Pennsylvania  
*Medical gas design for new 24,000 sq. ft. renovation*

UPMC Lee Hospital  
Johnstown, Pennsylvania  
*Medical gas design for new 45,000 sq. ft. renovation*

Children's National Medical Center  
Washington, D.C.  
– *Medical gas design for 250,000 sq. ft. addition*  
– *New medical air and vacuum pump systems*

Conemaugh Health Systems  
Johnstown, Pennsylvania  
*Plumbing design of a new 242,000 sq.ft. medical pavilion*

Children's Hospital Pittsburgh  
Pittsburgh, Pennsylvania  
*Medical air system replacement and alarm upgrade*

Kane Community Hospital  
Kane, Pennsylvania  
*Plumbing design for new MRI suite*

Sewickley Hospital  
Sewickley, Pennsylvania  
– *7th floor medical/surgical renovation*  
– *Emergency department renovation*

**Education**

Associate Degree, Specialized Technology, Mechanical Drafting 1988, Hiram G. Andrews Center

**Experience**

H.F. Lenz Company 1989 - Present  
L. Robert Kimball & Associates 03/89 – 09/89  
U.S. Government, The Pentagon 06/85 – 08/85

**Professional Affiliations**

ASPE Member  
Medical Gas Professional Healthcare Organization



Mr. Kormanik has designed complete plumbing and sprinkler systems for hospitals, colleges, schools, laboratories, 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:

West Virginia University Hospitals  
Ruby Memorial Hospital,  
Morgantown, West Virginia  
New 176,000 sq.ft. addition and 47,000 sq.ft.  
renovation including a new boiler/chiller plant  
to serve 878,000 sq.ft. of clinical space

Martinsburg Medical Office Building  
Tri-State Professional Complex  
Martinsburg, West Virginia  
New 30,000 sq.ft. medical office building that  
houses The Center For Orthopedic Excellence,  
Tri-State Surgery Center and Premier Physical  
Therapy and includes additional space for  
future tenant.

Conemaugh Memorial Medical Center,  
Johnstown, Pennsylvania  
Plumbing design for 250,000 sq.ft. hospital  
expansion project

Conemaugh Oncology Center  
Johnstown, Pennsylvania  
Plumbing designer for a new 26,000 sq.ft.  
cancer care center

Altoona Hospital  
Altoona, Pennsylvania  
– New 280,000 sq.ft., seven-story outpatient  
tower  
– Various renovation projects

Veterans Affairs Medical Center  
Philadelphia, Pennsylvania  
– New 680,000 sq.ft. clinical addition  
– Building 1 renovation

Veterans Affairs Medical Center, Aspinwall  
Facility, Pittsburgh, Pennsylvania  
– New 160-bed intermediate care building  
– New boiler/chiller plant

Hamot Hospital  
Erie, Pennsylvania  
– New 80,000 sq.ft. Heart Institute  
– New 42,000 sq.ft. addition and renovation of  
20,00 sq.ft. of clinical space (Millennium  
Project)  
– Facility-wide sprinkler system design  
renovation  
– North wing domestic water study and  
conceptual design

Heritage Health System, The Medical Center  
Beaver, Pennsylvania  
\$30 million facility realignment program

Westmoreland Hospital  
Greensburg, Pennsylvania  
Plumbing and fire protection design for a new  
four-story medical office building

**Education**

Associate, 1983, Interior Design, Art Institute of Pittsburgh

**Experience**

H.F. Lenz Company 1985 - Present

**Professional Certification**

Certified in Plumbing Design, ASPE • Certified Plumbing Plans Examiner (BOCA)  
Certified Plumbing Inspector (BOCA)



Mr. Rager serves as a Construction-Administration Representative in all types of heating, ventilating, air conditioning, plumbing, fire protection, electrical, building management, automatic temperature control, and site utility projects. He has a thorough knowledge of system design concepts and is responsible for carrying out the company standard of quality during construction. His responsibilities include pre-design site surveys; on-site troubleshooting; mechanical/electrical coordination; monitoring and observing construction workmanship to ensure conformity with the contract documents; enforcing applicable codes during construction; attending construction and coordination meetings; providing cost estimates for contract revisions; and reviewing vendor/contractor submittals.

Mr. Rager has provided construction administration services for institutional, commercial, and industrial projects. His projects include:

West Virginia University Hospitals  
Ruby Memorial Hospital  
Morgantown, West Virginia  
*New \$44 million project including a 176,000 sq.ft. new addition and renovation of existing 47,000 sq.ft.. The new addition included: Surgical ICU; Pediatric ICU; Long-term acute care; Ten new Ors; Support services; and a new boiler/chiller plant*

Veterans Affairs Medical Center  
Philadelphia, Pennsylvania  
– 680,000 sq.ft. clinical addition  
– 525-car parking garage  
– New chiller building  
– New 240-bed nursing home

Veterans Affairs Medical Center  
Aspinwall Facility  
Pittsburgh, Pennsylvania  
– New 210,000 sq.ft. intermediate care building  
– 7,200 sq.ft. boiler/chiller plant  
– New 240-bed nursing home

Veterans Affairs Medical Center  
Oakland Facility  
Pittsburgh, PA  
– Renovation of five floors of the existing hospital  
– New four-story clinical, education, and outpatient addition  
– Animal Research Building addition

**Education**

Associate Degree, Electronics Engineering Technology, 1977, Ohio Institute of Technology

**Experience**

H.F. Lenz Company 1980 - Present

Plastic Surgical Associates  
Johnstown, Pennsylvania  
*New medical office building*

Naval Research Laboratory  
Washington, D.C.  
– Replace HVAC system in two office buildings  
– Emergency generator

Heritage Health System, The Medical Center  
Beaver, Pennsylvania  
– Boiler conversion  
– Energy retrofit of AHUs  
– Power factor correction for building electric service

National Institutes of Health,  
Bethesda, Maryland  
*HVAC renovations*

West Virginia University  
Morgantown, West Virginia  
Robert C. Byrd Health Sciences Center -  
*Correct HVAC deficiencies in autopsy area*  
Charles Wise Library - 124,000 sq.ft. addition  
and 86,000 sq.ft. renovation to existing facility  
*featuring an underground steam line*

University of Pittsburgh  
Sutherland Hall  
Pittsburgh, Pennsylvania  
*New dormitory complex*