Alpha Assocites, inc.

10:47:55 a.m.

07-20-2017

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Purchasing Divison 2019 Washington Street East Post Office Box 50130 Charleston, WV 25385-0130

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

Proc Folder: 348702 Doc Description: A/E Service-Cacapon Lodge Addition and Various Improvements Proc Type: Central Contract - Fixed Amt Date Issued Solicitation Closes Solicitation No Version 2017-06-23 2017-07-20 CEO 0310 DNR1700000007 13:30:00

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

Vendor Name, Address and Telephone Number:

Alpha Associates, Inc. 209 Province Ave, Morgantown WV, 26501

304-296-8216

07/20/17 11:38:28 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet (304) 558-2596 guy.l.nisbet@wv.gov

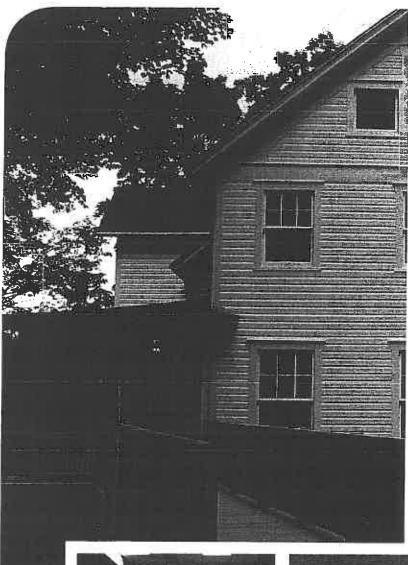
FEIN# 55-05/4284 DATE 7/20/17

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

10:48:15 a.m.

07-20-2017

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H.F. LENZ COMPANY

WVDNR Cacapon Lodge Addition & Various Improvements

Architectural & Engineering Services
STATEMENT OF QUALIFICATIONS

July 20, 2017 CEOI 0310 DNR 1700000007









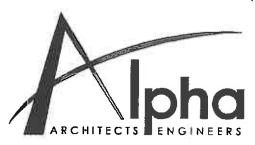


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July 20, 2017

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

RE: A/E Services – Cacapon Lodge Addition & Various Improvements

Dear Selection Committee,

Alpha Associates, Incorporated is pleased to submit this Expression of Interest to provide the necessary architectural, engineering, and other related professional services for the addition and improvement project at the Cacapon Lodge Resort State Park. Our ongoing experience with the WVDNR and the convenient location of our Eastern Regional Office in Martinsburg make us the perfect partnering firm for the Department of Natural Resources on this upcoming project.

Since 1969, Alpha has partnered with the Department of Natural Resources to provide architectural and engineering services for projects around the state. We are currently working with the DNR on the Tygart Lake State Park Boating & Parking Improvements Project. Alpha has also completed multiple projects at Cacapon Lodge Resort State Park, including a deck replacement, temporary stairs design, and the Old Lodge Renovation project.

The Project Team

Alpha's staff includes Registered Architects and Professional Engineers, as well as additional technicians, surveyors, landscape designers, and support staff that will be available to assist with all your project needs. We have teamed with H.F. Lenz, a Johnstown MEP firm, to provide any electrical design services that may be needed. Alpha and H.F. Lenz have teamed up for numerous other projects, allowing us to provide a cohesive design team for seamlessly completed



Alpha Assocites, Inc.

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project. Resumes for each of the team members along with related experience are included in this Statement of Qualifications.

Summary

The Alpha Team is excited for the opportunity to work with the WV DNR on another project. Our dedicated team of professionals will make your project a priority. Please contact me at 304-296-8216 extension 102 if you have any questions or require additional information.

Thank you for your consideration.

Sincerely,

ALPHA ASSOCIATES, INCORPORATED

Richard A. Colebank, PE, PS

President and COO

rick.colebank@thinkalphafirst.com

















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

FIRM NAME Alpha Associates, incorporated

OFFICE LOCATIONS 209 Prairie Avenue Morgantown, West Virginia 26501

535 West King Street Martinsburg, West Virginia 25401

INCORPORATED 1969; Morgantown, WV

FIRM PRINCIPALS

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

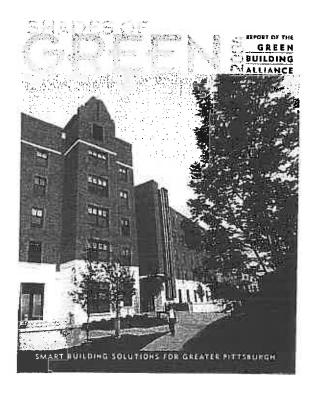
NUMBER OF EMPLOYEES 22 Employees

SERVICES

Architectural Design Civil Engineering Structural Engineering Surveying Interior Design located in Martinsburg. Landscape Architecture Construction Administration







H.F. Lenz Company

Currently in its 71st year, the H.F. Lenz Company (HFL) is a nationally ranked multi-discipline engineering firm with a strong commitment to technical excellence and unparalleled customer service. From planning and design through commissioning and operations support, we work with our clients to find the best solutions that meet current needs while providing the flexibility and scalability to accommodate future growth and new technologies.

COMPANY HISTORY

Harold F. Lenz began offering his services as a registered engineer in 1927. He established the H.F. Lenz Company in its present form in 1946, and in 1953 the company was incorporated in Pennsylvania. In 1978 the firm expanded its services to include civil and structural engineering, and professional surveying services. Today the firm employs 150 individuals working out of our Johnstown-based headquarters and satellite offices in Pittsburgh, Pennsylvania, Conneaut, Ohio, and Middletown, Connecticut.

LEED AND SUSTAINABLE DESIGN

H.F. Lenz Company was recently ranked in the "Top 100 Green Design Firms" in the Country, for the fifth year, by ENR Magazine. We have been a member of the United States Green Building Council since 2000 and currently have 17 LEED® Accredited Professionals on staff. At present, we have designed over 15 million sq.ft. of facilities utilizing LEED principles including 80+ projects that have attained various levels of LEED Certification, and numerous more projects pending LEED Certification. In addition, we also became an Energy Star® Partner Firm in 2008, and have completed validation services for numerous projects which have attained an Energy Star Building Label.

EXPERIENCED PROJECT TEAM

Our team has worked together on the design of *over 4,000 rooms of hotels and condominiums* including a pre-certified LEED® hotel prototype for Marriott International, Inc., which is designed to reduce a hotel's energy and water consumption by up to 25%, and save owners approximately \$100,000 in annual total operating cost.

DISCIPLINES/SERVICES OFFERED IN-HOUSE INCLUDE:

- Mechanical Engineering
- Electrical Engineering
- Data/Communications
 Engineering
- Fire Protection / Life Safety Engineering
- Structural Engineering
- Civil Engineering
- → Surveying
- Construction Administration
- > Commissioning and Training
- Modeling (BIM)



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STATEMENT OF QUALIFICATIONS



Alpha Associates, Incorporated is a West Virginia-based architectural and engineering design firm that provides services in the areas of architectural design, interior design, construction administration, civil engineering, structural engineering, landscape design, project management, and surveying. Our clients benefit from our unique combination of extensive design and construction experience, advanced technical tools, dedicated principals and highly skilled staff members.

Alpha's philosophy has always been to provide exemplary services for fair fees. We have always believed that the best way to succeed as a business is to go above and beyond the basic requirements of our contracts and do whatever is necessary to successfully complete the given project. What is best for the client is inevitably best for us too.

Everyone at Alpha, from the president to the administrative staff, works towards the goal of completing successful projects. Our principals are involved with projects from the earliest stages right through final completion and beyond. They will provide frequent updates on the project by using effective communication tools to manage the projects and all the involved parties. Our skilled staff of 26 architects, engineers, surveyors and administrative personnel all work diligently towards producing the drawings and specifications that will deliver our clients successful projects, completed on time and within budget.

Alpha has thrived for 48 years because we are a professional organization dedicated to providing superior architectural and engineering design services to our clients. While our staff is large enough to handle any size project, we are also small enough to give each and every one of our projects the individual attention to detail that will make them successful projects for our clients.



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SCHEDULE CONTROL

Alpha Associates, Incorporated has an excellent track record of producing projects on time and within the Owner's budget. Many A/E firms can claim the same successes, but the determining factor is the tools the firms utilize to achieve the budgets, both in regard to funds and time. Alpha utilizes a number of tools, both traditional and modern to exceed our clients' expectations.

A project schedule is a dynamic, ever changing entity. Your project schedule depends on many factors including:

- Preferred construction method
- Changes to project scope
- Unique construction elements

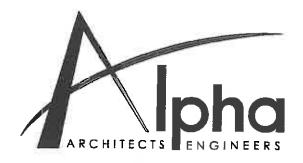
The Alpha Team has an excellent track record of meeting project design deadlines. Most recently, Alpha completed construction on a project in Morgantown that went from design to completion in just over 12 months. This project was completed for a private developer and had a construction cost in excess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

Successful project management depends upon consensus regarding work efforts, milestones and goals. The team has found that the development of detailed work plans, which delineate tasks and deliverables for each project phase, in concert with the client and full project team, is the most effective means of establishing expectations about efforts required by the respective disciplines. In addition to guiding the efforts of the design team, the work plan sets forth specific time frames and decision points for Owner and user reviews, comments and approvals.

Developing an overall project schedule is a critical task that must take into account many factors: building type, owner's desire for occupancy, scope of work and level of documentation, whether contract(s) is bid or negotiated, available fee, and prior experiences on similar projects. Characteristic of the client, its organization, or the involvement of a construction manager and his responsibility for document review must also be considered.

This starts with a kick-off meeting which establishes ground rules, responsibilities,





and line of communication. We have found that a team visioning session is a great way to get everyone started off on the right track.

Determining a project schedule is a task that must be done with all parties involved in the process. Once the design process begins, a very detailed, realistic project schedule can be developed and communicated to all involved.



RESOURCES AND SOFTWARE



Resources

Alpha Associates, Incorporated is prepared to commit staff resources to the Greenbrier County Commission. Alpha has the qualified and experienced personnel, administrative support, along with the production equipment and resources to ensure the successful completion of the 140 Acre Recreational Complex Project. We are confident in our ability to provide the Commission with a committed, dependable, and cohesive team.

<u>Software</u>

The project team incorporates the latest computer and software capabilities required to complete the working drawings and specifications for this project. Our cost accounting system is top-of-the-line and we have the ability to differentiate fees according to task. We have secure e-mail and internet capability to allow efficient transfer of information between Alpha and the client. We currently have the latest editions of the following software:

- ➤ AutoCAD 17
- > REVIT (Editions up to 2018)
- ➢ Civil 3D
- ➤ RISA 3D
- ➤ RISA Floor
- RISA Foundation
- ➤ MathCAD
- > Autodesk Suite
- Enercalc
- ➤ AutoTURN







Alpha Associate, Incorporated has an excellent record of budget control. Our inhouse cost estimators, combined with an excellent relationship with contractors throughout the area allow us to develop accurate estimates early in the design process. The Alpha estimators begin at the schematic design phase of the project and develop a line item estimate of probable construction costs that can be carried through each of the project phases. At each phase the project estimate is updated to include a more detailed estimate in order that the accuracy can be enhanced. During these updated estimates, specific increases or decreasing can be identified allowing the owner to make informed decisions moving forward on the important budget issues for the project.

Many projects employ the use of alternatives' to control the budget through obtaining actual contractor pricing during the bid process. This allows flexibility for the owner in determining the costs of portions of the project that may be optional and critical for budget control.

Below you find several examples where Alpha was able to execute projects successfully within a reasonable budget.

Jefferson County Emergency Services Agency

Estimate: \$1,230,651.26 Bid Amount: \$1,219,000.00 Change Order: \$4,354.52 Final Budget: \$1,223,354.52

Berkeley County Emergency Ambulance Authority

Estimate: \$345,463.30 Bid Amount: \$399,400.00 Change Order: \$23,859.91 Final Budget: \$423,259.91

Clear Mountain Bank - Oakland

Estimate: \$1,922,615.80 Bid Amount: \$1,925,948.00 Change Order: -\$37,405.00 Final Budget: \$1,888,543.00



Alpha Assocites, Inc.

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Alpha Assocites, inc.

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Richard A. Colebank, PE, PS President and COO

07-20-2017





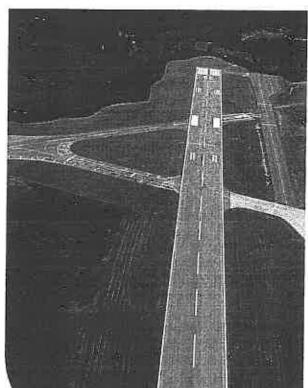


ALPHA RESUMES



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 other public and private clients. Since 1988, Mr. Colebank has been the Principal-In-Charge 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 projects.



PROFILE

Broad-based responsibilities in the following areas:

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

PROFESSIONAL HIGHLIGHTS

Project Manager:

- WVU Research Park; Morgantown, WV
- Federal Bureau of Prisons Hazelton Medium Security Prison
- WV Medal of Honor Recipients Plaza; Hazelton, WV
- North Fork Hughes River Recreation Facilities; Ritchie County, WV
- WVDOH I-77 Welcome Center; Williamstown, WV
- Ices Ferry Bridge; Morgantown, WV
- Monongalia General Hospital Expansion; Morgantown, WV
- Monongalia General Hospital Access Road; Morgantown, WV
- Morgantown Municipal Airport Access Road; Morgantown, WV
- West Virginia State Office Building; Clarksburg, WV
- WVU College of Physical Education and Sports Science/Student Health Center: 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 Assocites, Inc.

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Richard A. Colebank, PE, PS President and COO

EMPLOYMENT HISTORY

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

EDUCATION

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

QUALIFICATIONS

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

Professional Surveyor: West Virginia

Certified Private Pilot

AFFILIATIONS

- Former NSPE/PEPP Governor of WV
- American Red Cross Regional Chairman
- University High School Foundation; Charter Member; President
- Morgantown Area Chamber of Commerce; Past Chairman
- WVU College of Civil and Environmental Engineering Visiting Committee
- WVU College of Business and Economics MBA Advisory Committee



Iphafirst.com

Contact

Richard A. Colebank 304.296.8216 800.640.8216

rick.colebank@thinkalphafirst.com

Alpha Assocites, Inc.

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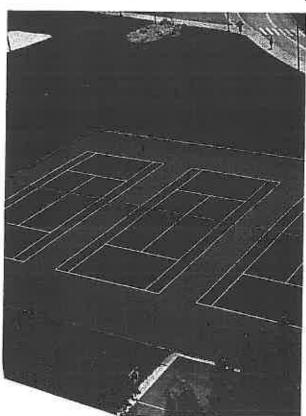




Charles Branch, PE | Principal, Civil Engineer

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.



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:

- Jane Lew Truck Stop; Jane Lew, WV
- Clarksburg State Office Building; Clarksburg, WV
- WVU Reedsville Farm Redevelopment; Morgantown, WV
- Freedom Automotive Group Dealerships; Morgantown, WV
- Freedom Kia; Clarksburg, WV
- 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



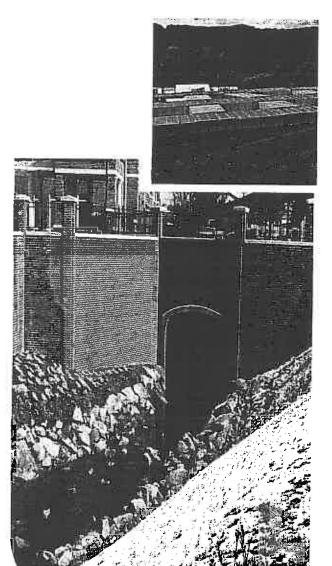
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ALPHA RESUMES



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



Contact

Charles B. Branch 304.296.8216 800.640.8216 chuck.branch@thinkalphafirst.com

Alpha Assocites, Inc.

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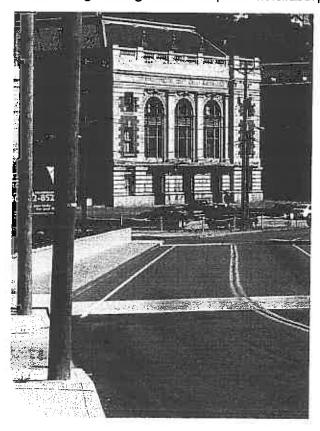


SUMMARY

Charles B. Luffrell, PE

Principal, Structural Engineer

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



PROFILE

Broad-based responsibilities in the following areas:

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

PROFESSIONAL HIGHLIGHTS

Structural Engineer:

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

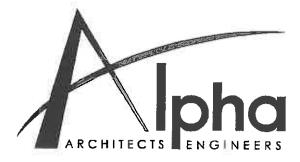


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Charles B. Luttrell, PE | Principal, Structural Engineer

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



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

QUALIFICATIONS

• License: Professional Engineer: West Virginia, Pennsylvania

AFFILIATIONS

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

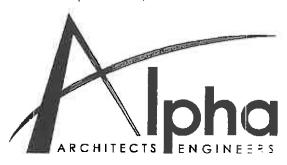
Research Experience

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



Contact

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



ALPHA RESUMES



Casey Smith, Assoc. AIA

Architectural Designer

SUMMARY

3042968245

Mr. Smith has been employed with Alpha Associates since 2016. He has worked on several architectural projects including multi-million dollar projects for private and public sector clients. Mr. Smith came to Alpha with an impressive background in educational, commercial, and local government facilities. He has offered assistance in project management, using his background to further improve the quality of each project he is involved with. Mr. Smith has been an incredible asset to Alpha Associates and proves to be an asset on each of his projects.



PROFILE

Broad-based responsibilities in the following areas:

- Architectural/Structural Construction Drawings
- Construction Administration
- Project Management Assistance

PROFESSIONAL HIGHLIGHTS

Construction Administration Projects

- Cacapon State Park Lodge Renovation
- Los Mariachis New Restaurant; Morgantown, WV
- Freedom Ford Automotive Dealerships, Granville, WV
- Elkins Fordland; Elkins, WV
- Federal Group GSA VA Tenant Improvement Project;
- Point Marion ADA Deck; Point Marion, PA
- Los Mariachi Renovation; Morgantown, WV
- WVU Hazel Ruby McQuain Equine Education &

Resource Center; Reedsville, WV

EMPLOYMENT HISTORY

2016- Current Alpha Associates, Incorporated

2014-2016 MSES Architects

2011-2014 Blackwood Associates

2007-2009 Vandalia Heritage Foundation

Education

2014 Boston Architectural College, Master of

Architecture

2009 Fairmont State University; BS Architecture

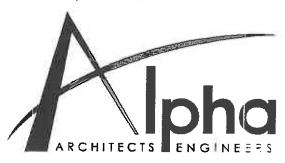


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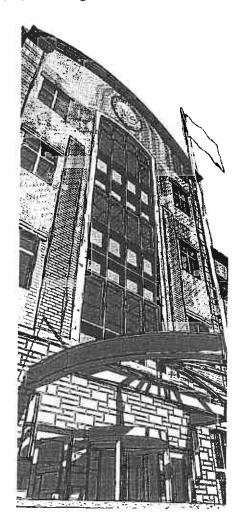
ALPHA RESUMES

Luke Cunningham

Architectural Technician

SUMMARY

Mr. Cunningham has been employed by Alpha Associates since 2010. He has worked on numerous architectural and civil projects which include Clarksburg State Office Building, WV Regional Tech Park Building 770, Mon General Access Road, & Freedom Automotive Dealerships as construction administrator, architectural technician, project inspector, and assistance in project management.



PROFILE

Broad-based responsibilities in the following areas:

- Architectural/Structural Construction Drawings
- Construction Administration
- Construction Inspector

PROFESSIONAL HIGHLIGHTS

Construction Administration Projects

- Clarksburg State Office Building; Clarksburg, WV
- WV Regional Tech Park Building 770; Charleston, WV
- Freedom Ford Automotive Dealerships, Granville, WV
- Pineville Elementary School; Pineville, WV
- Huff Consolidated Elementary/Middle School; Hanover, WV
- Morgantown Municipal Airport Maintenance Building; Morgantown, WV
- Mon General Access Road, Morgantown, WV
- Point Marion Water Line Addition, Point Marion, PA
- Harry Green Chevrolet, Clarksburg, WV
- West Virginia Building 25, Parkersburg, WV
- WVU CPASS & Student Health Center, Morgantown, WV
- Bavarian Inn Hotel Infinity Pool & Bar, Shepherdstown, WV
- Glenville University Skybox, Glenville, WV
- WVU Center for Alternate Fuels Engines & Emissions, Morgantown, WV

EMPLOYMENT HISTORY

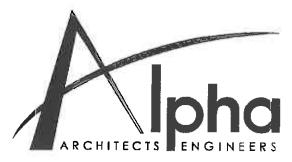
2010 - Current Alpha Associates, Incorporated 2006 - 2010 Buchart Horn, Incorporated



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ALPHA RESUMES

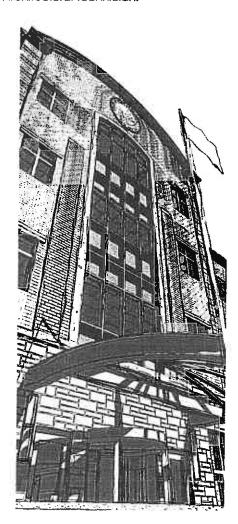
Hannah Richardson

Interior Designer

SUMMARY

3042968245

Mrs. Richardson has been employed with Alpha Associates since August of 2016. While new to the Alpha team, she brings a different approach to design that focuses on the interior space and those that occupy it. She specializes in space planning and strongly believes in functional interior spaces and spatial relations. At Alpha, Richardson also does work as an Architectural Technician.



PROFILE

Broad-based responsibilities in the following areas:

- Architectural Construction Drawings
- Interior Design
- Renderings/Presentations
- Research Based Design
- Space Planning

PROFESSIONAL HIGHLIGHTS

Interior Design/Architectural Technician

- BCFB South Berkeley Fire Station; Inwood, WV
- Cacapon State Park Old Lodge Renovation; Cacapon, WV
- Freedom Automotive Group, Morgantown; WV
- Grant County Bank Renovation/Addition; Petersburg, WV
- Hazei Ruby McQuain Equine Education & Research Center; Reedville, WV
- Jane Lew Truck Stop; Jane Lew, WV
- New Restaurant for Los Mariachis; Morgantown, WV
- VA Tenant Improvements; Shepherdstown, WV

EDUCATION

Harding University

Bachelor of Science - Interior Design; 2017

EMPLOYMENT HISTORY

2016 - Current Alpha Associates, Incorporated





EDUCATION Bachelor of Science, Electrical Engineering Technology, 1987, University of Pittsburgh at Johnstown

EXPERIENCE

H.F. Lenz Company 1992-Present • Parfitt/Ling Consulting Engineers 1990-1992 • Gary Johnston & Assoc., Inc. 1987-1990

PROFESSIONAL REGISTRATION / CERTIFICATION

Licensed Professional Engineer in Pennsylvania, Arkansas, Idaho Illinois, Indiana, Maryland, Nebraska, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, South Dakota, Virginia, and West Virginia • LEED Accredited Professional

PROFESSIONAL AFFILIATIONS NSPE/PSPE • U.S. Green Building Council

Thomas F. Deter, P.E., LEED AP

Principal-in-Charge

Mr. Deter has over 28 years of experience and is responsible for the engineering design of all trades, the supervision of senior designers, the preparation of reports to determine optimal systems and/or equipment selections, and the coordination and checking of contract documents for completeness and quality. He has extensive experience in the design of building systems for both new buildings and building retrofits for educational, health care, commercial, government, industrial, residential, and utility related facilities. He is experienced in the design of power distribution systems; emergency power systems and monitoring; uninterruptible power supplies; lighting and emergency lighting systems; fire alarm systems; security; sound; and telephone systems.

PROJECT EXPERIENCE

Snowshoe Mountain Resort, Snowshoe, West Virginia

- Camp 4: Prototypical one-, two-, and three-bedroom condominium units for a new residential development
- Rimfire Lodge: New resort development with 150 residential condominium units, retail shops, and restaurant
- Highland House: 67 unit condominium building and restaurant

Wilson Lodge, Oglebay Resort, Wheeling, West Virginia

New four-story, 46,000 sq.ft. addition that housed 48 guest rooms, 5 suites and a call center

The Pennsylvania State University, University Park and Commonwealth Campuses (* indicates prior experience)

- > New 100-bed student housing -LEED Certified (Harrisburg)
- New 304-bed student housing designed for LEED Certification, currently in construction (Abington)
- Study for six residence halfs to replace HVAC and lighting (Berks Campus)
- New generator to provide life safety, lighting and fire alarm system for six residence halls (Berks Campus)
- > Student housing study (Brandywine Campus)

University of Charleston, Charleston, West Virginia

> New 55,000 sq.ft. design/build dormitory

Carnegie Mellon University - Pittsburgh, Pennsylvania

- New \$10M first year residence half housing a kitchen and dining room for special events, a recreation room and 24 founges and study areas. LEED Silver
- Sprinkler design and analysis for 24 residence buildings





EDUCATION
Bachelor of Architectural
Engineering, 1995, The Pennsylvania
State University

EXPERIENCE H.F. Lenz Company 1995 – Present

PROFESSIONAL REGISTRATION / CERTIFICATION Licensed Professional Engineer in Pennsylvania • Delaware • New York • LEED Accredited Professional

PROFESSIONAL AFFILIATIONS ASHRAE – Johnstown, PA Chapter, member of the Board of Governors

Scott A. Mack, P.E., LEED AP

Mechanical Engineer

Mr. Mack has over 20 years of experience in the design of HVAC, plumbing, and fire protection systems. His responsibilities as Project Engineer include code compliance verification, schematic layout, calculations, equipment selection, control system selection, specification writing, coordination, life cycle cost analyses, cost estimating, as well as coordination with the client, the architect, regulatory agencies, and the engineering staff; project scheduling; and other project management functions. He holds a Bachelor of Architectural Engineering from The Pennsylvania State University and specializes in mechanical engineering and project management.

PROJECT EXPERIENCE

Temple University, Philadelphia, Pennsylvania

 New Morgan Hall 1,275 student residence high-rises, dining hall, parking deck and retail complex – designed to attain LEED Certification

Pennsylvania State University, Multiple Campuses

- New 100-bed student housing –LEED Certified (Harrisburg)
- Student housing study (Brandywine Campus)
- Student housing study (Abington Campus)

Carnegie Mellon University, Pittsburgh, Pennsylvania

New 72,000 First Year Residence Hall - LEED™ Silver

Snowshoe Mountain Resort, Snowshoe, West Virginia

- Camp 4: Fast-track design of prototypical one-, two-, and three-bedroom condominium units for a new residential resort development
- Rimfire Lodge: Design of a mountain-top resort development including 150 residential condominium units, retail shops, and restaurant
- Highland House: 67 unit condominium building and restaurant

Marriott International CFRST Brands LEED® Volume Program

 New prototype design to provide for basic LEED Certification requirements for new Courtyard, Fairfield, Residence Inn, Springhill Suites & Townplace Suites

Various Brand Hotels

- Four Courtyards by Marriott, LEED Silver, PA & TN
- Three Hyatt Place Suites, LEED, PA
- Two Extended Stay Residence Inns, LEED Silver, CN & NC
- Developing prototype standards for a new line of luxury hotels for Virgin Hotels





EDUCATION

Master of Science, Mechanical Engineering, University of Pittsburgh, 1995

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

EXPERIENCE

H.F. Lenz Company 1996 - Present Peter F. Loftus Division, Eichleay Engineers, Inc. 1989 – 1996 • Newport News Shipbuilding 1988 – 1989 • U.S. Air Force 1984 - 1988

PROFESSIONAL REGISTRATION / CERTIFICATION

Licensed Professional Engineer in PA • Certified LEED Professional • PA License expires 9/30/15)

PROFESSIONAL AFFILIATIONS American Society of Heating, Refrigerating, and Air-Conditioning Engineers; APPA • U.S. Green

Buildings Council

John C. Stewart, P.E., LEED-AP

Mechanical Engineer/Project Manager & Main POC

Mr. Stewart has over 31 years experience in the design of HVAC, plumbing, and fire protection systems. His responsibilities have included code compliance verification, schematic layout, calculations, equipment selection, control system selection, specification writing, coordination, life cycle cost analyses, and cost estimating. His experience includes the design of mechanical systems for office buildings, hospitals, educational facilities, industrial plants, and military installations. He has also been involved in the design of chiller and boiler plants.

PROJECT EXPERIENCE

Snowshoe Mountain Resort, Snowshoe, West Virginia

- Camp 4: Prototypical one-, two-, and three-bedroom condominium units for a new residential development
- Rimfire Lodge: New resort development with 150 residential condominium units, retail shops, and restaurant
- Highland House: 67 unit condominium building and restaurant

Wilson Lodge, Oglebay Resort, Wheeling, West Virginia

 New four-story, 46,000 sq.ft. addition that housed 48 guest rooms, 5 suites and a call center

The Street @ The Meadows, Washington, Pennsylvania

 New 134,000 sq.ft. development with 100-apartments above two major restaurants and 18 retail tenants

SpringHill Suites by Marriott, Rutherford, New Jersey

 New 180-room, high-rise hotel adjacent to the NY Giants Stadium; the first hotel in NJ designed with a back-up fire protection system to be utilized in a major seismic event

Marriott International CFRST Brands LEED® Volume Program

 New prototype design to provide for basic LEED Certification requirements for new Courtyard, Fairfield, Residence Inn, Springhill Suites & Townplace Suites

Various Brand Hotels

- Seven Courtyards by Marriott
- Eight Hyatt Place Suites
- Four Residence Inns
- Two Candlewood Suites
- Developing prototype standards for a new line of luxury hotels for Virgin Hotels

Temple University, Philadelphia, Pennsylvania

 New Morgan Hall 1,275 student residence high-rises, dining hall, parking deck and retail complex – Designed to attain LEED Certification



11:02:16 a.m. 07-20-2017

27 /57

P027



EDUCATION
B.S. in Mechanical Engineering
Technology, 2000, Point Park
College
Associate in Specialized Technology
1984, Architectural Drafting and
Construction with CAD
Technology, Triangle Institute of
Technology

EXPERIENCE H.F. Lenz Company 1989 - Present

Newport News Ship Building 1984 - 1989

PROFESSIONAL REGISTRATION / CERTIFICATION Certified in Plumbing Design, ASPE

Gregory D. Rummel, CPD

Received: 3042968245

Plumbing/Fire Protection Designer

Mr. Rummel has designed complete plumbing and fire protection systems for hotels, resorts, colleges, schools, office buildings, hospitals, prisons, laboratories, industrial facilities, and military installations. He is fully knowledgeable of NFPA codes and is experienced in the design of wet, dry, preaction, FM200, and deluge fire protection systems. He is responsible for plumbing and sprinkler system design, layout, and calculations; selection and sizing of equipment; cost estimates; and site survey work. Mr. Rummel 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.

HOUSING PROJECT EXAMPLES

Snowshoe Mountain Resort, Snowshoe, West Virginia

- Camp 4: Prototypical one-, two-, and three-bedroom condominium units for a new residential development
- Rimfire Lodge: New resort development with 150 residential condominium units, retail shops, and restaurant
- Highland House: 67 unit condominium building and restaurant

Wilson Lodge, Oglebay Resort, Wheeling, West Virginia

New four-story, 46,000 sq.ft. addition that housed 48 guest rooms, 5 suites and a call center

The Street @ The Meadows, Washington, Pennsylvania

 New 134,000 sq.ft. development with 100-apartments above two major restaurants and 18 retail tenants

Temple University, Philadelphia, Pennsylvania

 New Morgan Hall 1,275 student residence high-rises, dining hall, parking deck and retail complex – designed to attain LEED Certification

Pennsylvania State University, Multiple Campuses

- New 100-bed student housing –LEED Certified (Harrisburg)
- New 304-bed student housing designed for LEED Certification, currently in construction (Abington)

Carnegie Mellon University, Pittsburgh, Pennsylvania

- New \$10M first year residence half housing a kitchen and dining room for special events, a recreation room and 24 lounges and study areas. LEED Silver
- Life safety study and fire protection upgrade to the sevenstory Moorewood Gardens tower residence hall
- Sprinkler design and analysis for 24 residence buildings





EDUCATION Bachelor of Science, Electrical Engineering, 1988, The Pennsylvania State University

EXPERIENCE

H.F. Lenz Company 1999 - Present L. Robert Kimball & Associates 1996 - 1999 Leach Wallace Associates, Inc. 1990 - 1996 • E.A. Mueller, Inc. 1988 -

PROFESSIONAL REGISTRATION / CERTIFICATION

Licensed Professional Engineer in PA, AL, CA, FL, IA, KS, KY, LA, MA, MD, MO, NC, NE, NJ, NM, NV, NY, OH, RI, TN, WV, and DC

PROFESSIONAL AFFILIATIONS Institute of Electrical and Electronics Engineers, Inc.

Steven P. Mulhollen, P.E.

Electrical Engineer

Mr. Mulhollen has over 27 years experience in the design of power distribution systems, control systems, emergency power systems, lighting and emergency lighting systems, fire alarm systems, security, sound, and telecommunication systems for correctional, educational, institutional, industrial, health care, and commercial facilities.

PROJECT EXPERIENCE

Snowshoe Mountain Resort, Snowshoe, West Virginia

- Camp 4: Prototypical one-, two-, and three-bedroom condominium units for a new residential development
- Rimfire Lodge: New resort development with 150 residential condominium units, retail shops, and restaurant
- Highland House: 67 unit condominium building and restaurant

Wilson Lodge, Oglebay Resort, Wheeling, West Virginia

 New four-story, 46,000 sq.ft. addition that housed 48 guest rooms, 5 suites and a call center

The Street @ The Meadows, Washington, Pennsylvania

 New 134,000 sq.ft. development with 100-apartments above two major restaurants and 18 retail tenants

SpringHill Suites by Marriott, Rutherford, New Jersey

New 180-room, high-rise hotel adjacent to the New York Giants Stadium; the first hotel in New Jersey designed with a back-up fire protection system to be utilized in a major seismic event (a new code requirement for New Jersey)

Marriott International CFRST Brands LEED® Volume Program

 New prototype design to provide for basic LEED Certification requirements for new Courtyard, Fairfield, Residence Inn, Springhill Suites & Townplace Suites

Various Brand Hotels

- Seven Courtyards by Marriott
- Eight Hyatt Place Suites
- Four Residence Inns
- Two Candlewood Suites
- Developing prototype standards for a new line of luxury hotels for Virgin Hotels

New Orleans DoubleTree, New Orleans, Louisiana

High-rise mixed use hotel

Temple University, Philadelphia, Pennsylvania

 New Morgan Hall 1,275 student residence high-rises, dining hall, parking deck and retail complex – Designed to attain LEED Certification





EDUCATION Bachelor of Science, Electrical Engineering Technology, 2006, University of Pittsburgh at Johnstown

EXPERIENCE H.F. Lenz Company 2006- Present

PROFESSIONAL REGISTRATION /

CERTIFICATION Licensed Professional Engineer in Pennsylvania • Completion of PTW Software and Power Systems Application Courses through IEEE • Completion of Battery Technology and Battery Monitoring through

Liebert Corporation

Brian D. Schmidt, P.E.

Electrical Engineer

Mr. Schmidt has extensive experience in the use of computeraided drafting and design (CADD) and electrical system modeling and computer calculations (SKM Power Tools) for producing engineering drawings for various types of higher educational, commercial, institutional, and governmental facilities. His experience in the electrical field includes the design of generators, emergency lighting and power distribution systems; exterior high-voltage underground and overhead pole line distribution systems; building interior and exterior electrical power distribution systems; lightning protection systems; theatrical stage dimming systems; sound reinforcement systems; computer room grounding systems and signal reference grid systems; uninterruptible power supply systems; paralleling and synchronizing switchgear; interior and exterior building lighting systems; site utilities; grounding systems; and signal, communication, security, and fire alarm systems.

PROJECT EXPERIENCE

Temple University, Philadelphia, Pennsylvania

- New Morgan Hall 1,275 student residence high-rises, dining hall, parking deck and retail complex – designed to attain LEED Certification
- New 216,000 sq.ft. Alter Hall, Fox School of Business and renovation of 13,000 sq.ft. of the attached Speakman Hall

Pennsylvania State University, Multiple Campuses

- New 100-bed student housing –LEED Certified (Harrisburg)
- New 304-bed student housing designed for LEED Certification, currently in construction (Abington)
- Study for six residence halls to replace HVAC and lighting (Berks Campus)
- New generator to provide life safety, lighting and fire alarm system for six residence halls (Berks Campus)
- Study and design of the 21,326 net sq.ft. student union
- 60,000 sq.ft. addition and 24,000 sq.ft. renovation of the Steven A. Adler Athletic Complex

Saint Joseph's Provincial House, Emmitsburg, Maryland

Renovations throughout the 390,000 sq.ft. including new kitchen and dining facility, renovations to existing Daughters quarters for new residence quarters for the residents of Saint Joseph's Provincial House as well as quarters for visiting Sisters

Carnegie Mellon University - Pittsburgh, Pennsylvania

- Phase II renovations of the 217,000 sq.ft. Doherty Hall; LEED Certified Building
- Mellon Institute telecommunications upgrade

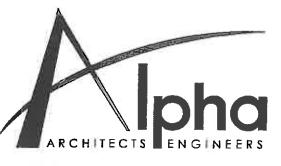


Alpha Assocites, Inc.

11:03:48 a.m.

07-20-2017

30 /57







ALPHA EXPERIENCE



Professional Office Building

2001

Historical Case Study

KCAD Professional Office Building

Martinsburg, WV

Alpha Associates, Incorporated completed the restoration of this historic train station to be used as the Alpha Eastern Regional Office. The Martinsburg Train Station is part of the Boom Town Historic District. Originally constructed in 1889 to allow for the expansion of the Cumberland Valley Railroad, the Depot has not been used for passengers since the 1950's.

Extensive care was taken to maintain the original windows and to restore much of the original façade. Alpha received a West Virginia Society of Architects Design award for this historical restoration.



Project Contact: Richard Klein 535 West King Street Martinsburg, WV 25401 304-264-0051



At a Glance

CLIENT: KCAD Properties

LOCATION: Martinsburg, WV

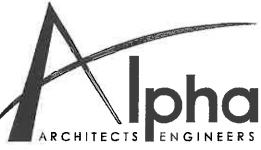
COMPLETION DATE: 2001

SIZE: 85,250 sq. ft.

CONSTRUCTION COST: Private Client

07-20-2017 11:04:49 a.m.

31/57











Picnic Pavilion 2011

Recreation Case Study

Hawks Nest State Park Picnic Pavilion Anstead, WV

The picnic pavilion at the Hawks Nest State Park, located off of Route 60 in Anstead, West Virginia, was established under The New Deal. The main goal of restoration was to provide guests with an esthetically pleasing historic site during their visit at Hawks Nest State Park. Alpha Associates, Incorporated provided plans for the park to restore the pavilion. These plans included the repair and repoint of fireplace and surround wall, cleaning existing foundation drains, clear vegetation away from building, recapping chimney, roof repair, and installation of a waterproof wall to prevent water damage.



Project Contact: Bradley S. Leslie 324 Fourth Avenue South Charleston, WV 25303 304-558-2764



At a Glance

CLIENT: DNR Parks and Recreation

LOCATION: Anstead, WV

COMPLETION DATE: 2011

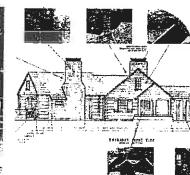
Alpha Assocites, Inc.

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07-20-2017

32/57









CCC Museum | 2011

Recreation Case Study

Hawks Nest State Park CCC Museum Anstead, WV

The CCC Museum at the Hawks Nest State Park, located off of Route 60 in Anstead. West Virginia, was established under The New Deal. The museum had very simple goals: to be renovated to fit the needs of the State Park while preserving the historic exterior. The structure had signs of water damage and needed general repair and replacement. Associates, Alpha Incorporated responded with a strategy to stabilize and restore the building with repairs and replacement of doors, walls, windows, and siding along with regrading for water flow purposes to prevent any further water damage. All work was completed in compliance with Preservation Alliance of West Virginia.



Project Contact: Bradley S. Leslie 324 Fourth Avenue South Charleston, WV 25303 304-558-2764



At a Glance

CLIENT: DNR Parks and Recreation

LOCATION: Anstead, WV

COMPLETION DATE: 2011

Alpha Assocites, Inc.

11:07:08 a.m.

07-20-2017

33 /57









Berkeley Springs Bath House

2010

Historical Case Study

Berkeley Springs Bath House

Berkeley Springs, WV

Alpha designed the renovation of this historic landmark originally built in 1929 with a 1949 addition. The Bath House in Berkeley Springs State Park is open to the public and is operated year round by the Park Service.

The renovation included restoration of the historic masonry exterior. New hot water storage tanks and boilers are a major component of the design, as well as, central air-conditioning, which the Bath House never had before.

The interior design added amenities such as whirlpool baths. The Bath House upgraded to reflect a more "spa-like" ambiance. The existing Roman Baths have new liners and saunas were added for the benefit of the Bath House Patrons.

Project Contact:
Brad Leslie
324 4th Street
South Charleston, WV 25303
304-558-2764



At a Glance

CLIENT: WV DNR

LOCATION: Berkeley Springs, WV

COMPLETION DATE: 2010

SIZE: 7,127 Sq. Ft.

CONSTRUCTION COST: \$2.2 Million

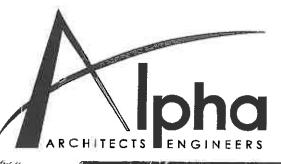
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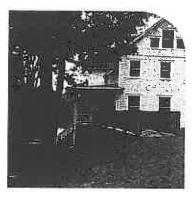












ALPHA EXPERIENCE



Cass Scenic Railroad

2009

Historical Case Study

Cass Scenic Railroad - Clubhouse Renovation Cass, WV

Alpha performed an evaluation of the building condition, structural foundation, and MEP systems for the Clubhouse to document the historic structure and utilize the information to determine what the best use of the building would be. Alpha then designed the renovation of this historic landmark originally built in 1916.

Renovation of the Cass Clubhouse was first developed as a lodge concept. When that was deemed too costly, the renovation/restoration design confined to the exterior of the building shell and first floor. This stabilized the building and fixed major problems while allowing the first floor to be operated as a museum.

Project Contact:

Brad Leslie

324 4th Street

South Charleston, WV 25303

304-558-2764



At a Glance

CLIENT: WV DNR

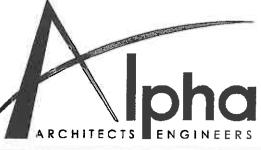
LOCATION: Cass, WV

COMPLETION DATE: 2009

SIZE: 5,163 Sq. Ft.

CONSTRUCTION COST: \$505,000

Fee: \$75,617











Berkeley County War Memorial Park | 2005

Architectural Case Study

Berkeley County War Memorial Park Martinsburg, WV

Alpha Associates, Incorporated was pleased to design a concession stand and outdoor dining area for War Memorial Park in Martinsburg, West Virginia. Alpha's architectural staff chose to design the concession stand and roof structure to blend in with surrounding structures and the natural beauty of the area.

The roof structure, designed using alu-laminated wood beams. maximizes the seasonal usage of the concession stand by allowing guests to dine in a covered pavilion.

Project Contact: R. Stephen Catlett, **Executive Director** 273 Woodbury Avenue Martinsburg, WV 25404 304-264-4842



At a Glance

CLIENT: Berkely County

Parks and Recreation

LOCATION: Martinsburg, WV

COMPLETION DATE: 2005

SIZE: 400 sq. ft.

Alpha Assocites, Inc.

11:10:55 a.m. 07-20-2017

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Tygart Lake State Park Grafton, WV

The West Virginia Division of Natural Resources selected Alpha Associates to design improvements to the boat ramps and parking areas at the Tygart Lake State Park in Grafton, West Virginia. Alpha worked with the WV DNR and the Army Corps of Engineers to design a project which fit into the Corps' Master Plan for Tygart Lake. The project increased the size of the parkngl of at the boat launch area accommodating 100+vehicles and trailers and improved vehicular movement and circulation. The boat ramps were widened and lengthened to provide access to the lake at low pool elevations as well as improved access during summer pool levels.

Canaan Valley Resort Buildings 1, 4, & 5 Davis, WV

Alpha Associates, Incorporated is providing demolition plans for the existing buildings 1, 4, and 5 at Canaan Valley Resort. The reclamation plan includes creating two levels of grassed, accessible open spaces that can be used for outdoor activities.

Coopers Rock State Forest Bruceton Mills, WV

Alpha Associates, Incorporated is designing a new potable water supply and distribution system for Cooper's Rock State Forest. The current well, storage tank, and pump systems are deficient and in need of replacement. The upgraded system will serve the Forest Superintendent's residence, the Assistant Superintendent's residence, as well as the Forest Office Building.

Watters Smith Memorial State Park Jane Lew, WV

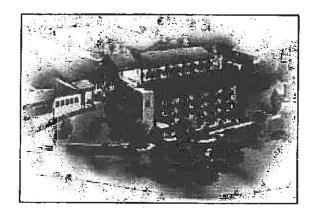
Alpha Associates, Incorporated is preparing demolition plans for the existing pool at Watters Smith Memorial State Park. As part of the reclamation, Alpha is doing the architectural design and site design for a large pavilion that the park will rent to the public to use for gatherings such as weddings receptions, family reunions, and company picnics.

Alpha Associates, Incorporated is also developing a structural engineering plan to straighten and stabilize the historic Farm Barn located within the Historical Restoration and Interpretive Area of the park.

Spring Run Fish Hatchery

Petersburg, WV

Alpha Associates, Incorporated is providing architectural and engineering services for the improvements at Spring Run Fish Hatchery. These improvements include replacing the existing flat roof with a new sloped roof.



Oglebay Resort

Received: 3042968245

Wheeling, West Virginia

WILSON LODGE ADDITION

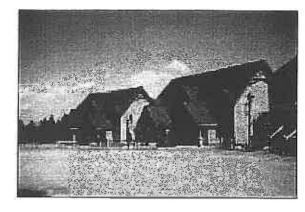
H.F. Lenz Company provided engineering services for the Wilson Lodge Addition at Oglebay Resort. The project consisted of a four story 46,000 sq.ft. addition to the existing Wilson Lodge, which housed 48 guest rooms, 5 suites, and a call center. The engineering systems in the building included the following:

- Through-the wall PTAC individual room air conditioning
- Make-up air for toilet room exhaust was provided to the corridors from a roof-top 100% make-up air unit. The make-up air unit was provided with a total energy recovery wheel, which recovered energy from the exhaust system.
- Another roof-top unit served common areas throughout the building.
- An indoor air handling unit served the Call Center.
- A light hazard wet pipe sprinkler system in accordance with NFPA 13.
- A new domestic and fire water service was routed to the building.
- A central domestic gas-fired hot water heating system with storage tank.
- A new fire alarm system throughout the building.
- A new utility company electric service.
- A new emergency generator to serve life safety and other selected loads.
- A complete structured tele-data wiring system throughout the building.
- A snow melting system entrance walkway.

Construction on the \$4,000,000 project was completed in 2006.



P038



Snowshoe Mountain Resort

Snowshoe, West Virginia

CAMP 4 CONDOMINIUMS

Snowshoe is a year-round resort situated in the Allegheny Mountains of West Virginia. The owners chose land with a spectacular mountain view to build residential, townhome-style condominiums, calling the private enclave "Camp 4." This premier development features exclusive ski-in, ski-out residences and is considered to be the first outpost of the new resort.

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, and structural design services for prototypical one-, two-, and three-bedroom condominium units for Snowshoe's Camp 4 site. Phase I of the project included the construction of 17 units and a hot tub building.

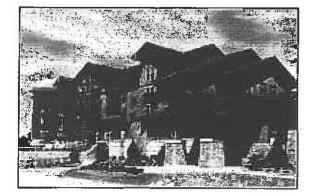
Engineering services provided included:

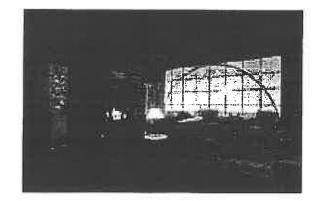
- Coordination with the general contractor to determine the most cost-effective foundation and structural framing which would meet the construction schedule.
- Fast-track project approach that included the preparation of individual construction document packages for foundations, framing, site electrical, building MEP, and hot tub building.

Key features of the project included:

- > Pre-engineered truss system
- > Engineered wood-framed floor systems
- Redundant framing at common walls for fire separation
- Individual unit domestic/fire protection water services
- Central propane tank and underground distribution piping to units
- Propane-fueled fireplaces
- Metered electrical service for each unit
- Unit lighting and power
- Building fire protection system and fire alarm systems
- Building heating and exhaust systems







RIMFIRE LODGE

Rimfire Lodge is the cornerstone of the new mountain village at Snowshoe Mountain Resort. The development consists of 150 residential units; village-level retail stores, a delicatessen, and restaurant; below-grade parking; a fitness area; a hearth-room lounge; ski lockers; and laundry facilities.

Some features and amenities of the lodge include:

- Covered decks and patios
- Beautiful 360 degree views
- Located in ski-in/ski-out village
- Rustic exterior timber beams and columns
- Exterior stone accent and detailing
- Private underground parking
- "Alpenglow" hearth room with rustic stone and wood detailing
- "The Basin" private hot tubs in a landscaped setting
- Private sauna and workout room

H.F. Lenz Company was responsible for the mechanical, electrical, plumbing, and structural engineering design for the entire development.

Some of the systems' key elements include:

- Individual condominium electrical metering
- Owner, retail, and residential unit electrical services
- Individual residential unit heating and cooling units
- Full fire protection system
- Rustic lighting design
- Garage CO exhaust system
- Hot tub services
- Propane and water services
- General building heating and exhaust systems
- Kitchen hood exhaust system
- Propane-fueled fireplaces



Alpha Assocites, Inc.

11:12:47 a.m.

07-20-2017

40 / 57





HIGHLAND HOUSE

This building is adjacent to the new Mountain Village at Snowshoe Resort. The development consists of 67 residential dwelling units; village-level retail stores, a restaurant; belowgrade parking; a fitness area; a hearth-room lounge; ski locker; and laundry facilities.

H.F. Lenz Company was responsible for the mechanical, electrical, and plumbing engineering design.

Key features of the project included:

- Beautiful slope-side views
- Rustic exterior timber beams and columns
- Exterior stone accent and detailing
- Basement level retail storage and circulation
- Hearth room
- Two full-service restaurants
- Retail spaces
- Fitness facility

Additional projects for Snowshoe Mountain Resort include:

- The Seneca Building new Residence building Design of a 52 unit condominium building consisting of one-, two-, and three-bedroom units
- Expedition Station new Residence building Design of a 100 unit condominium building consisting of efficiency and one-bedroom units and retail space
- Jr. Bringham Building new check-in facility of multipurpose building housing restaurant and lounge, offices, and ski lift ticket counter
- Shavers Center Evaluation
- Valet/Check-in Building
- Retail Spaces including: two restaurants, ski shop, rental space and various other retail spaces





University of Charleston

Charleston, West Virginia

NEW BROTHERTON HALL DORMITORY

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, and structural engineering services for this \$6,000,000 design/build project.

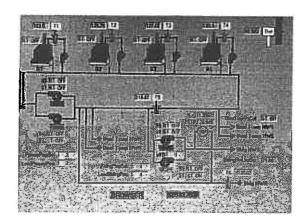
Brotherton Hall at the University of Charleston is a four story, 54,600 sq.ft., 220-bed modern student residence hall. The first floor contains public areas, including multi-purpose and conference rooms, bicycle storage, as well as secured student residences. The upper three floors have 15 residential suites and two student lounges per floor. Each suite consists of two rooms with a shared bath, accommodating four students. Each room includes data, phone, and CATV access.

Time and a firm budget limitation were significant challenges faced by the team. Due to the cooperation and coordination of the Project Team and the University, the project was completed in the fall of 2000 just eight months from the contract award date. The client's needs were met and expectations exceeded without delays and without change orders.

Construction was completed in 2000.







Waterfront Place Hotel

Morgantown, West Virginia

CONVERSION TO FULL SERVICE MARRIOTT

The Waterfront Place Hotel, overlooking the picturesque Monongahela River, is a full-service Wharf District hotel that houses 205 guest rooms and suites, an indoor pool, state-of-the-art fitness center and on-site dining. H.F. Lenz Company was retained to provide the MEP engineering services for an assessment survey, and subsequently, design services for the Marriott renovations including:

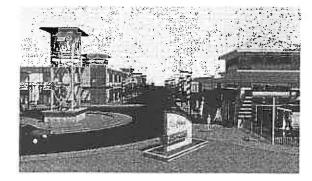
- Correcting Guestroom Corridor Air Issues
- Designing Guestroom Corridor HVAC Controls
- Fire Alarm Upgrades
- Life Safety Upgrades
- Stairwell Pressurization
- Sprinkler System Upgrades
- New DDC Building Automation System
- Domestic Water Heating Upgrades
- Exterior Lighting and Signage

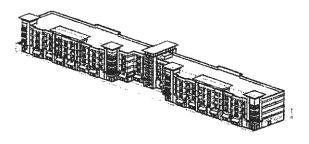
The renovations are phased to enable the hotel to maintain operations.

Phase I includes: Porte cochere, exterior signage, exterior building lighting, three meal greatroom, lobby vestibule, front desk, elevator lobby, public restrooms, business center, fitness center, indoor pool and locker rooms, sundry, guest corridors & elevators, guestrooms, suites & baths, concierge lounge and vending areas.

Phase 2 includes the function spaces, pre-function spaces, ballroom, meeting rooms, board rooms, and event center.

The study was completed in 2014, the renovations are currently ongoing.







The Street @ The Meadows

Washington, Pennsylvania

NEW MIXED USE APARTMENTS AND RETAIL DEVELOPMENT

H.F. Lenz Company is currently providing the mechanical, electrical, plumbing, fire protection and structural engineering services for a new 134,000 sq.ft. development with 100-apartments above two major restaurants and 18 retail tenants. The new development is located next to the Meadows Racetrack and Casino.

RESIDENTIAL APARTMENT UNITS:

- Vertical Terminal Heat Pumps are provided in a closet on an outside wall for heating and cooling. A wall louver is used for condenser ventilation.
- Condensate drain and secondary condensate drain piping from the apartment HVAC units extended down through the building and is routed through the exterior wall at grade level. A concrete splash block is installed below the drain termination
- Kitchen and bathroom exhaust is ducted horizontally to the exhaust duct mains located above the corridor ceiling on each floor and ducted to a vertical shaft to an energy recovery unit roof top unit. A combination fire/smoke dampers are located at each shaft penetration.
- Dryer exhaust from each apartment is ducted horizontally between the wall cavities of the common partition wall between apartments and extend to the exterior wall with an approved individual dryer exhaust wall vent.
- Outside Air/Makeup Air for the apartments is supplied from a Dedicated Outside Air System (DOAS) Roof Top Unit (RTU) located on the roof. The DOAS RTU consisted of gas fired heating, direct expansion (DX) cooling, hot gas reheat, an energy recovery heat wheel and a supply and exhaust fan. Outside Air is ducted from the RTU to vertical shafts and extended horizontally above the corridor ceiling and branched off to each apartment. A combination fire/smoke dampers are located at each shaft penetration.
- Domestic cold and hot water copper piping extends to water risers located throughout the building to feed the apartments. PEX water piping is extended from the risers to serve each apartment with isolation valves and manifolds.
- Schedule 40 PVC sanitary sewer and vent stacks are located throughout the building to accommodate the apartment areas. The new stacks are connected together below the First Floor and routed to the center of the building. Sanitary sewer piping that is located above return air plenums will not be permitted to be PVC piping. All sewer piping in these areas will be cast iron piping with nohub joints.



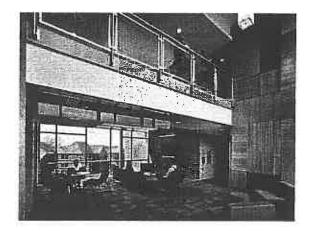
- Electric Service to each apartment is provided with a single phase 150A, 208Y/120V panel. The residential portion of the facility is provided with a 1000KVA, 208Y/120V electric service terminating in a 3000A, main distribution panel located in the main electric room on the First Floor. A 200A, 208Y/120V, three phase feeder will serve 6 apartments.
- Fire sprinkler piping located on the apartment level floors is CPVC Blazemaster piping, which will be extended and connected to new quick response semi-recessed pendent and sidewall fire sprinklers that are located in the apartment spaces.

RETAIL SPACES:

- Mechanical systems serving the ground floor retail spaces consists of a split system electric DX constant volume air handling unit to serve each retail space. Outside Air and Relief Air for these units is ducted via a common OA and RA plenum located high in the service corridor to Areaways on the backside of the building. Wall mounted thermostats are provided for individual space temperature control. The remote condensing units are located on the roof.
- Provisions were made for Kitchen Hood Grease Exhaust for each restaurant. A 2-hour fire rated vertical shaft extended from the first floor to the roof on each end of the building for the kitchen grease exhaust duct and will discharge at the roof with an upblast type grease exhaust fan. Cleanouts will be provided as required to meet code.
- Each tenant is provided with a separate water meter. The new water meter and backflow preventer is installed in the service corridor and a 1-1/2" copper cold water line will be valved and capped for each tenant. Individual gas meters are provided for the two end restaurant spaces.
- A 1000 KVA, 480V secondary service is designed to provide service to each of the retail spaces on the First Floor. Each tenant is provided with a separate utility meter. Single bay retail spaces are provided with a 100A, 480Y/277V electric service. The end bays (restaurants) are provided with a 400A, 480Y/277V electric service.
- New ordinary hazard automatic wet fire sprinkler systems will be installed throughout the retail and restaurant spaces. New quick response upright sprinkler heads will be installed in the shell spaces, which will be modified using swing arms during future tenant fit outs. Each retail and restaurant space will have a zone control valve and a water flow switch. Fire sprinkler piping in these areas will be black steel piping.

Construction on the \$20 million project was completed in 2015.







The Pennsylvania State University

Harrisburg, Pennsylvania

NEW FRESHMAN RESIDENCE HALL

H.F. Lenz Company provided the mechanical, electrical, plumbing, fire protection, and telecommunications engineering services for a new 31,000 sq.ft, 4-story, 100-bed student housing facility.

The new building was the first LEED Certified residential building within Penn State.

Feature of the project include:

Energy-conserving heating and cooling — A conventional heat pump system (plans for geothermal had to be changed late in design due to the area being a superfund site) along with a dual-wheel dedicated outdoor air unit, to de-couple the latent load from the heat pumps, provides excellent indoor air quality and individual space control with low overall energy use.

Energy-efficient lighting systems – In addition to using efficient lighting and occupancy sensors throughout, all exterior, stair, corridor and public space lighting is controlled through the building automation system to enhance energy savings and physiological perception based on the time of day.

Water efficiency - All the showers, sinks and toilets in the building have low-flow controls to reduce the amount of water usage throughout the building.

Recycled material – Fixtures and furniture within the building are made from recycled material.

The east-west orientation of the building provides optimal moderate seasonal changes in sun angles. Stormwater will be irrigated to rain gardens with drought-tolerant, native species plants, helping to establish a healthy ecosystem around the building.

The building is also Penn State's first residential building designed to include wireless/keyless card access on the suite and bedroom doors.

Throughout the residence hall construction, the college community could watch progress via an online web cam that chronicled the process from laying the foundation to opening day.

The \$7.8 million project was completed in 2010.

The project is LEED Certified.

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Settlers Ridge Courtyard by Marriott

Robinson Township, Pittsburgh, Pennsylvania

NEW LEED SILVER HOTEL

H.F. Lenz Company provided the MEP engineering design services for a new 79,000 sq.ft. 125-room, 5-story hotel designed to attain a LEED Silver Rating. The project features a heat recovery system with a roof top air handling unit and a guestroom bath exhaust system. During the past few years, a guestroom bath exhaust system in a horizontal configuration with a constant draw of 30 cfm, produced by main exhaust fans at both ends of the corridors, was utilized. For the Settler's Ridge project, an additional exhaust was achieved by installing individual, locally switched, exhaust fans in each guestroom bathroom, providing an additional draw of 65 to 80 cfm. With the introduction of the heat recovery wheel into the outside air supply system, we were required to mechanically balance the cfm of supply and exhaust air to meet ASHRAE 62.1 outside air minimum ventilation requirements for LEED pre-requisites. Therefore, the size of exhaust duct work was increased and balancing louvers were added as the individually switch exhaust fans in each room were eliminated. The public areas in the hotel are controlled by thermostats and are conditioned with five fan coil units and three air handling units suspended from the second floor deck, and supplemental heat is provided by two electric horizontal heating units in the main mechanical and electrical rooms, and electric wall heaters in entrance vestibules.

Energy-efficient features of the HVAC system include two 100%dedicated outside air system roof top units equipped with an energy recovery wheel that will reclaim heat energy from the guestroom bathrooms, and energy efficient fans in the units that provide additional energy savings when compared to the minimum requirements for ASHRAE 90.1. Energy saved by the HVAC system for space heating was about 72% and 30% for space cooling, interior fans contributed about 17% energy savings, but LEED energy calculations are based on the overall building and site energy use in dollars, higher U-values for glass, exterior insulation and roof insulation helped play a role in the overall energy savings was about 19% kWh, and the overall building energy savings in dollars was about 24%.

Water conserving features in the hotel include 1.28 GPM water closets, 1.5 GPM lavatory faucets, and 2.0 GPM shower heads, which meet the 25% water savings in LEED requirements. Based on the LEED calculations, the annual water savings will be 319,275 gallons.

Construction was completed in 2010.











Culinary Institute of America

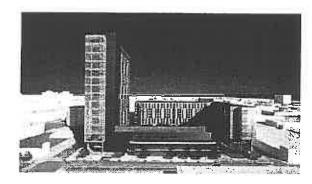
Hycle Park, New York

NEW STUDENT HOUSING

This project involved the design of a phased housing development based upon a clustered village concept, which included 4 new 75-bed buildings of approximately 23,000 sq.ft. each. These new "lodge" style structures fit comfortably in the rolling, wooded terrain at the north end of the campus. H.F. Lenz Company provided the HVAC, plumbing, fire protection, electrical and telecommunications engineering design for the new housing units which feature gathering spaces for dining, studying and socializing on the first floor, and a full kitchen in the commons area to allow students to prepare meals and practice their culinary skills within their housing unit. H.F. Lenz Company worked closely with the architect, contractor, and the owner to evaluate sustainable design options. The new facilities utilize extremely efficient geothermal heat pumps for heating and cooling. Fresh ventilation air is preheated and cooled with an enthalpy heat recovery wheel from the building exhausts. The facilities total approximately 92,000 sq.ft. and construction was completed in 2007.

NEW STUDENT TOWNHOUSES

This project was delivered in a lease-back arrangement with a developer for an approximate construction cost of \$10,000,000. Three buildings which comprised of multiple townhouses were constructed to facilitate 160 students plus a single bedroom resident assistant. H.F. Lenz Company provided the HVAC, plumbing, fire protection, electrical and telecommunications engineering design for the townhouses in accordance with an R-2 (Residential) occupancy. Each townhouse was a three-story unit and was provided with eight private bedrooms, three full bathrooms, living room, full kitchen with gas cooking equipment and a private entrance from the outside. The buildings were designed to fit into the existing natural landscape and therefore each building was customized for its placement on the site. A natural gas life safety generator was installed and the campus tele/data systems were extended to each building. The new facilities utilize extremely efficient geothermal heat pumps for heating and cooling. Reheat coils were installed for dehumidification of the basement levels. Natural ventilation was implemented by properly size fenestration. The lighting systems were a combination of T-5 fixtures and LEDs. The buildings were also equipped with natural gas, electric, and water meters. The facilities total approximately 49,925 sq.ft. and construction was completed in 2012.





Temple University

Philadelphia, Pennsylvania

MITCHELL AND MORGAN HALL – NEW LEED STUDENT RESIDENCE HALL AND DINING DEVELOPMENT

H.F. Lenz Company provided the MEP engineering design services for the Temple University South Gateway Student Residence Development. The development consists of a high rise complex comprised of over 1,275 student beds organized in several suite configurations in two major building elements. The Tower element includes 24 residential floors and the Midrise element includes eight residential floors, both situated above a public/lobby level. Both the Tower and Midrise lobbies are entered from an elevated Terrace that is constructed over a plaza deck above a parking/service level situated at and below street level. The site encompasses an entire city block.

The complex also includes a three level Dining Pavilion which houses a two level food court with a dining room/ballroom located above, overlooking the Terrace. A roof top lounge is also located at the top floor of the Tower element.

Mechanical and Electrical features of the project include:

- Twenty (20) Kitchen Exhaust Systems
- > Campus Chilled Water
- Campus Steam
- Duty & Standby Zone Heating Hot Water Pumps
- Make-up Air Handling Units with Energy Recovery
- Four-pipe Fan Coils Units
- Suite Occupancy Controls
- > Lighting Controls
- Steam/Water Instantaneous Domestic Water Heaters
- Domestic Water Storage Systems
- Rain Water Recovery and Gray Water System

Construction on the \$220 million project was completed in 2014. The project was designed to attain LEED Certification.









Hotel/Hospitality Project Examples

CANDLEWOOD SUITES, LEND/LEASE Aberdeen Proving Grounds, MD

New 69 room hotel – designed to attain LEED Certification
 In design

CANDLEWOOD SUITES, LEND/LEASE Augusta, GA

 New 311 room hotel – designed to attain LEED Certification – in design

MARRIOTT, CINCINNATI AIRPORT Hebron, KY

 Guest room upgrades involving new bathrooms and upgrades to electrical systems – In design

LINCOLNWOOD HYATT PLACE Illinois

New 110 room hotel – In design

HYATT PLACE MCALLEN Texas

> New 110 room hotel - In design

HYATT PLACE Milwaukee, WI

> New 150 room hotel - in design

SOUTH POINTE MIXED-USE FACILITY

 New 6 floor, 125,000 sq.ft. building with below grade parking and three floors containing 90 guest rooms and two floors of office space - In design

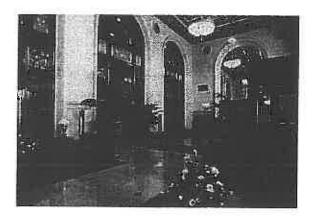
HYATT HOUSE San Roman, CA

 Renovations to two existing hotels, each has approximately 110 rooms – In construction

HUDSON ADVISORS Multiple Locations

- Prototypical designs for upgrades to guestrooms (approx. 2100 rooms) and public spaces for renovations to multiple Marriott Hotels (listed below):
 - MARRIOTT, CINCINNATI NORTH West Chester. OH Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction
 - » MARRIOTT, CINCINNATI NORTHEAST Mason, OH Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction
 - » MARRIOTT, CINCINNATI NORTHWEST Dublin, GH Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction
 - » MARRIOTT Birmingham, AL Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction









- » MARRIOTT Dallas Fort Worth, TX Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction
- » MARRIOTT Hartford, Windsor, CT Guest room upgrades involving new bathrooms and upgrades to electrical systems – In construction

THE STREET @ THE MEADOWS Pittsburgh, PA

 New 134,000 sq.ft. mixed use development with 100 apartments, two restaurants and 18 retail tenants - 2015

RESIDENCE INN Bolingbrook, IL

> New 103 room hotel - 2015

HYATT HOUSE Oal: Brook, IL

New 144 room hotel – 2015

HYATT HOUSE ON BAUM Plusburgh, PA

New 130 room hotel – 2015

WATERFRONT PLACE Morgantown, WV

Renovation of a 205 room hotel - 2015

NEW ORLEANS DOUBLETREE

Renovation of 325 room hotel – 2015

HOMEWOOD SUITES Washington, DC

Lobby renovation for a 175 room hotel = 2015

RESIDENCE INN DURHAM North Carolina

New 145 room hotel – 2015

KNOXVILLE COURTYARD Knoxville, TN

> New 130 room hotel -2014

RESIDENCE INN Durham, NC

New 130 room hotel –2014

Ottawa Residence Inn Ottawa, CN

New 130 room hotel – project designed but not built (2014)

HYATT HOUSE, PITTSBURGH South Side, P.A.

New 120 room hotel - LEED Silver - 2013

PARKWAY CENTER INN Pittsburgh, PA

Renovation of a 100 room hotel -2013

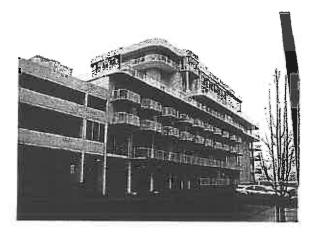
CRANBERRY COURTYARD Cranberry Township, PA

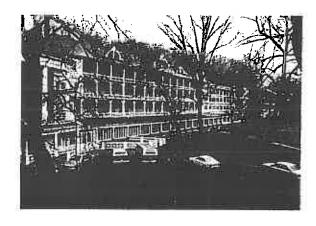
> New 130 room hotel - 2012

NORTH SHORE HYATT Pittsburgh, PA

New 7-story, 180-room hotel – 2010







TANGER COURTYARD BY MARRIOTT Pittsburgh, PA

 New 79,000 sq.ft., 124-room, 5-story hotel designed to attain LEED Certification – 2011

SETTLERS RIDGE COURTYARD BY MARRIOTT Pittsburgh, PA

> New 79,000 sq.ft. 125-room, 5-story hotel, LEED Silver 2010

SPRINGHILL SUITES BY MARRIOTT Rutherford, NJ

New 180-room hotel - 2010

DAYTON HOTEL Dayton, OH

Modifications to correct sprinkler freezing - 2007

WHITE PLAINS MARRIOTT White Plains, NY

Lobby and room renovations - 2007

WATERBURY COURTYARD Waterbury, CT

Lobby and room renovations - 2006

SNOWSHOE RESORT West Virginia

- Corduroy Inn Phase II feasibility study for a new 100room condominium (in progress)
- > New 63,000 sq.ft. Camp 4 Condominium Development
- > 70,000 sq.ft. Highland House Condominium Development
- > 158,000 sq.ft. Rimfire Lodge with 150 residential units
- New 52-unit Seneca Building
- New 100-unit Expedition Station
- Retail spaces include: Four restaurants, Multiple retail shops including: ski shop

COURTYARD BY MARRIOTT Philadelphia, PA

Historic renovation of 350,000 sq.ft., 500 room hotel

QUALITY INN BEACHFRONT HOTEL Ocean City, MD

 Due diligence study and report for the potential purchase of this 8-story hotel by the Sunburst Hospitality Group

THE BARCLAY HOTEL Philadelphia, PA

 Renovate and return the historic 335,000 sq.ft. Barclay Hotel to upscale hotel and condominium use

HOTEL DUPONT AND LEARNING CONFERENCE CENTER Wilmington, DE

Renovation of the historic, 90 room hotel, the project also included a new 28,000 sq.ft. Learning Conference Center

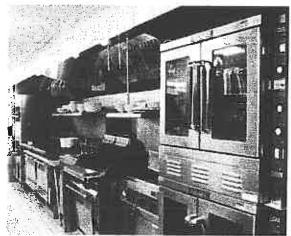
ATLANTIC PALACE HOTEL Atlantic City, MJ

 Upgrades to existing 30-story high-rise hotel and condominium facility to current code ventilation standards

BEDFORD SPRINGS HOTEL Bedford, Pennsylvania

Improvements for the historic hotel







RESTAURANT/FOOD SERVICE EXPERIENCE

H.F. Lenz Company has designed food service areas for a wide variety of clients, including the expansion of the commercial kitchen in the historic Duquesne Club in Pittsburgh. Our experience includes student centers, restaurants, convention centers, banquet halls, food courts, cafeterias for educational, corporate, and healthcare facilities, grocery stores and bakeries. Our team is experience in the design of both new and occupied facilities, and is thoroughly knowledgeable and experienced in dealing with the special issues that arise with these types of projects. The following is a brief overview of some of these issues.

KITCHEN ISSUES

- Maintaining a negative air pressure balance in kitchen in relation to surrounding spaces
- Providing appropriate fire ratings for ducts
- Fire suppression systems under cooking hoods
- Vapor tight lighting in dishwashing areas
- Adequate lighting levels for food preparation
- Coordination of penetrations with structural
- Possible filtration of cooking exhaust if it exits too close to air intakes
- Emergency power capacity if coolers or freezers are added
- Integrating new equipment controls with existing
- Maintaining ductwork access for cleaning
- Relocation of floor drains

PHASING ISSUES

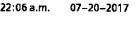
- Continuity of services when connecting to existing
- Hours of operation
- Controlling dust and dirt

HIGH PERFORMANCE KITCHEN CONCERNS

- Obtaining energy efficiency through appropriate control strategies
- Air Purification capabilities in response to current and future building code requirements
- Indoor Air Quality required to increase worker productivity and retention rates
- Safety

INNOVATION IN KITCHEN CONCEPTS

- Smart technology capable of:
 - Identifying kitchen cooking equipment status
 - Adjusting the exhaust airflow rate based on equipment status
 - Adjusting static pressure requirements based on air flow requirements
- A design that allows system flexibility for changes in kitchen layout





MARRIOTT LEED VOLUME PROGRAM -COMMISSIONING

Commissioning

In 2009, Marriott International, Inc. embarked on a initiative to provide franchises a more efficient way to certify sustainability for a new hotel. Marriott partnered with the United States Green Building Council (USGBC) to be an early participant in the pilot for the LEED Volume Program. The program precertifies projects based on the prototypical documents and supplemental calculations so that individual projects have significantly reduced documentation requirements when submitting for certification as a volume participant.

H.F. Lenz Company served as the commissioning consultant for the pre-certification of each brand. The Courtyard prototype became the first hotel brand to be certified under the pilot program in early 2010. TownPlace Suites and Residence Inn became certified late 2010. And the next generation of SpringHill Suites and Fairfield Inn and Suites were also reviewed. Our role included the development of the Commissioning Plan, Specifications, Commissioning Checklists and Test Procedures for each of the prototype brand.

To achieve a pre-certification from the USGBC, Marriott committed to develop and implement a Quality Control (QC) Plan. The QC role In 2009, Marriott International, Inc. embarked on a initiative to provide franchises a more efficient way to certify sustainability for a new hotel. Marriott partnered with the United States Green Building Council (USGBC) to be an early participant in the pilot for the LEED Volume Program. The program pre-certifies projects based on the prototypical documents and supplemental calculations so that individual projects have significantly reduced documentation requirements when submitting for certification as a volume participant.

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To achieve a pre-certification from the USGBC, Marriott committed to develop and implement a Quality Control (QC) Plan. The QC role of the commissioning agent under the LEED Volume Program is as follows:

- Hired directly by the owner
- Reviews all mechanical, electrical, and plumbing systems against the LEED prototype plans and specifications
- During design: Issues design review comments simultaneously to both the Owner and Marriott PM
- During construction: Tests all MEP equipment to verify operations per the LEED prototype plans and specifications

H.F. Lenz Company provided commissioning services under the Marriott LEED Volume Program for the following projects:

TOWNEPLACE SUITES AT GATEWAY PARK - 8607 DENVER, COLORADO

> TownePlace Suites at Cateway Park is a 4 story, 59,000 sq. ft. hatel featuring 204 guestrooms, an indoor pool and fitness areas. The hotel is located along Kittredge Street, serving the Denver International Airport and is accessible from Interstate 70.

TOWNEPLACE SUITES Frederick - 8448. FREDERICK, MARYLAND

TownePlace Suites Frederick is a 5 story, 73,000 sq. ft, hotel featuring 120 guestrooms, an indoor pool and fitness areas. The hotel located just off Buckeystown Pike (MDRie. 85) and is accessible from Interstates 70 and 270.

COURTYARD AT BRIARCLIFF HILLTOP -- 8622 KANSAS CITY, MISSOURI

Courtyard at Briardiff Hilltop is a 4 story; 93,000 sq. ft. hotel featuring 123 guestrooms, a banquet hall, restaurant, bar, indoor swimming pool and fitness areas. The hotel is located an North Mulberry Drive, serving the Kansas City Downtown Airport and is accessible from Interstates 29 and 35.

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Alpha Assocites, Inc.

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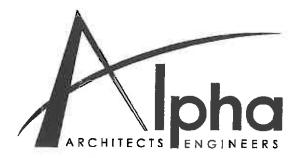
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3042968245



Michael Evans, Architect State of West Virginia

1900 Kanawha Blvd,, East Bldg. 1 Room MB-60 Charleston, WV 25305 304-957-7145

Melody Haynes, Procurement Officer State of West Virginia

1900 Kanawha Blvd. East Bldg. 1, Room MB-60 Charleston, WV 25305 304-957-7173

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

Real Estate Division State of West Virginia

1409 Greenbrier Street Charleston, WV 25311 304-558-3062

Mr. John Sommers, Senior Project Manager West Virginia University

979 Rawley Lane Morgantown, WV 26506 304-293-2856

REFERENCES

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

Robert Hammel, Former Director Morgantown Municipal Airport

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

Brian Thomas, President Clear Mountain Bank









References

HAMILTON VILLAGE TOWERS RENOVATION, UNIVERSITY OF PENNSYLVANIA

Full MEP renovation of the tri-tower residential development

Mr. Dave Dunn University of Pennsylvania Division of Facilities Services 3101 Walnut Street Philadelphia, PA 19104 Phone: 215/898-8803

Email: ddunn@pobox.upenn.edu

NEW MITCHELL AND HILARIE MORGAN HALL - STUDENT RESIDENCE HALL AND DINING PAVILION, TEMPLE UNIVERSITY

 New1,275 student bed facility with a three level dining pavilion. Designed to attain LEED Certification.

Mr. Thomas McCreesh Temple University Planning and Design Bell Building, Suite 300 1101 W. Montgomery Avenue Philadelphia, PA 19122 Phone: 215/204-7271

Email: tom.mccreesh@temple.edu

MASTER PLAN AND DESIGN SERVICES FOR NEW PHASED STUDENT HOUSING DEVELOPMENT, INDIANA UNIVERSITY OF PENNSYLVANIA

The new housing development consists of 9 buildings developed through four phases, and houses approximately 3,600 students. After the Master Plan was completed and submitted, H.F. Lenz Company was subsequently selected to provide engineering design services as well as LEED Fundamental Commissioning Services for this LEED Certified phased design/build project.

W. Thomas Borellis, RLA, ASLA Indiana University of Pennsylvania Suites on Maple West, Suite G-40 1099 Maple Street Indiana, PA 15705

Phone: 724/357-4724 Email: wborelli@iup.edu