



EXPRESSION OF INTEREST

**CAMP DAWSON RTI - HOT WATER REPAIRS
& CHILLER REPLACEMENT
SOLICIATION No. CEOI 0603 ADJ2500000023**

PREPARED FOR

WEST VIRGINIA ARMY NATIONAL GUARD

H.F. LENZ
ENGINEERING

H.F. Lenz Co.
1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814.269.9300
FAX: 814.269.9301

HFL File No. 2025-1563.00

June 3, 2025



H.F. Lenz Co. | 1407 Scalp Avenue | Johnstown, PA | 15904 | 814-269-9300

June 3, 2025

Department of Administration
Mr. David H. Pauline, Buyer
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

Subject: Expression of Interest
CEOI 0603 ADJ2500000023 Camp Dawson RTI - Hot Water Repairs & Chiller Replacement
HFL File No. 2025-1653.00

Dear Mr. Pauline:

H.F. Lenz Company (HFL) is enthusiastic about the opportunity to provide the Architecture/ Engineering Services required for the design of an HVAC system to support building.

The analytical skills, design capability, creativity, and overall knowledge possessed by our Team will enable us to successfully complete all aspects of the work within the allotted budget and timeframe. Our Team is fully prepared to bring the following strengths and benefits to this project:

- Extensive and recent experience with similar HVAC replacement projects for DOD and government buildings.
- Qualified and experienced subconsultant: DRS Architects, Inc., (Sixmo Companies) a Small Business offering architectural, planning and interior design services for over 60 years. DRS Architects and H.F. Lenz Co. have worked together for over the past 30+ years and have collaborated on hundreds of projects. Many have included the collaborations for PA National Guard maintenance buildings renovations, previous work for the three new billeting facilities for WVANG at Camp Dawson, DGS Crane Readiness Center and DGS New Castle Readiness Center, PA State Police new headquarters expansion, and U.S. Air Force - 911th Airlift Group. Latest projects with DRS:
- Our Project Manager for this project, Brian D. Schmidt, P.E., has over 19 years of experience including Department of Defense (DOD) project experience, and a long history of projects located in West Virginia.
- Senior-Level Personnel. Our Team consists of senior-level professionals who will remain involved with the project throughout its duration.
- Firm Stability. This is our 79th year in business. We have one of the lowest rates of employee turnover in our industry.
- Proven ability to work in collaboration with Owners and other consultants throughout the project while placing the Owner's interests first.

Thank you for the opportunity to submit this Expression of Interest. We look forward to the next steps in the selection process, including a possible oral presentation. In the meantime, we will be happy to answer any questions you may have regarding our submission.

Sincerely,

H.F. LENZ COMPANY

A handwritten signature in dark ink, appearing to read 'T. Deter', is written over the company name.

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

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TAB 1: FIRM PROFILE



H.F. Lenz Company

H.F. Lenz Company was established 1946 in its present form, under the name H.F. Lenz Company, R.E., and in 1953 the company was incorporated, as a Private Corporation, in Pennsylvania as H.F. Lenz Co. Our projects span the nation, with the heaviest concentration in the Northeast, and exceed \$1.5 billion in construction annually. Each market sector—government, corporate, health care, education, and industry—is served by a team of specialists who understand the unique needs of the clients we serve. Our staff consists of 190+ individuals, including 41 Licensed Professional Engineers and 14 LEED Accredited Professionals. Our headquarters is in Johnstown, PA with branch offices in Pittsburgh and Lancaster, PA; Conneaut, OH; and Middletown, CT.

Johnstown Headquarters

1407 Scalp Avenue
 Johnstown, PA 15904
 Phone: 814-269-9300
 Fax: 814-269-9301

Pittsburgh Office

1051 Brinton Road
 Pittsburgh, PA 15221
 Phone: 412-371-9073

Lancaster Office

120 North Pointe Boulevard
 Suite 203
 Lancaster, PA 17601
 Phone: 717-461-3916

Ohio Office

322 State Street
 Conneaut, OH 44030
 Phone: 440-599-7800
 Fax: 440-599-7801

Connecticut Office

101 Centerpoint Drive
 Suite 237
 Middletown, CT 06457
 Phone: 860-316-2124

Disciplines/services offered in-house include:

- Mechanical Engineering
- Electrical Engineering
- Data/Communications Engineering
- Fire Protection / Life Safety Engineering
- Structural Engineering
- Civil Engineering
- Surveying
- Construction Phase Services
- Commissioning and Training
- 3D CADD with Full Visualization
- Energy Modeling
- Sustainable design/LEED Services
- Building Information Modeling (BIM)

H.F. Lenz Company has provided engineering services for over \$100 million of construction for the Baltimore Corps of Engineers over the past 30 years including 7 indefinite delivery-type contracts and 11 new reserve centers, several of which were in West Virginia. Our experience also includes several recent projects for the Pennsylvania National Guard, including projects for Clearfield Readiness Center, Crane Readiness Center and New Castle Readiness Center. In addition, we have held six consecutive term contracts for Letterkenny Army Depot under which we have completed more than 100 projects requiring a variety of engineering expertise. **We previously provided the engineering services for the design of three new billeting facilities for WVANG at Camp Dawson.** In addition, we have extensive project experience in West Virginia, which includes over 400 projects in the past 30 years.

DRS Architects (Sixmo Companies) and H.F. Lenz Co. have collaborated on hundreds of projects over the past 30+ years, which include projects for the PA National Guard projects at Crane and New Castle Readiness Centers and a new regional maintenance building in Johnstown, PA; and projects under multiple term contracts for the U.S. Air Force - 911th Airlift Group; a confidential federal government agency in West Virginia; a nationwide term contract for NASA facilities; and 70+ projects for DOE/NETL campuses in West Virginia, Pennsylvania and Oregon.

LEED®

H.F. Lenz Company has been a member of the U.S. Green Building Council since 2000. Our experience includes 120+ projects that have attained various levels of LEED Certification, in total over 16 million SF of facilities.





DRS Architects Firm Profile

Celebrating over 60 years of practice as one of the region's leading architectural, planning, and interior design firms, DRS Architects provides design services with a strong commitment to focus on our clients' needs and objectives. DRS provides architectural design, management of the design process, control of project costs and schedule, and we seek design excellence with every commission.

We are now in our sixth generation of firm leadership thanks to our acquisition in 2024 by the Sixmo Companies, strengthening our firm's position in the market and expanding on our service offerings.

Our firm leadership is:

- Patrick E. Thornton, President
- Jared S. Perry, Vice President
- Jon Funari, Principal

Some of our notable clients include:

- Pennsylvania Army National Guard
- Department of Energy, NETL
- Federal Bureau of Investigation
- Pennsylvania State Police
- Baltimore Corps of Engineers
- US Postal Service
- University of Pittsburgh
- Slippery Rock University
- Duquesne University
- Starbucks
- YMCA

We provide architectural design services, including:

- Facilities Evaluation
- Code Analysis
- Master Planning
- Site Analysis
- Facility Programming
- Feasibility Studies
- Interior Design
- Cost Estimating
- Contract Documents
- Contract Administration
- Post-occupancy Services



Our clients have relied on DRS to successfully deliver the design of new buildings and renovations for the last six decades. We attribute a large measure of our success to a methodical approach to design, applying thoughtfulness and experience to every project regardless of size, while recognizing that each project is a unique combination of client, program, and circumstance. At the heart of our design approach is the philosophy that the most successful designs are the result of a back-and-forth exchange of ideas, discussion, and understanding between the participants in the process.

We view each project with an eye towards sustainability and as an opportunity to improve the well-being of people by employing environmentally responsible design strategies, even when certification is not a requirement. With our LEED Accredited Professionals, our team brings knowledgeable experience to all our projects.





Firm History

DRS Architects' long and varied history has shaped our corporate culture. Officially founded in 1959, we look back on more than six decades of successful architecture, planning, and interior design, even as we look forward to more achievements in the future.

The first iteration of DRS was the firm Mitchell and Ritchey, a partnership of James Mitchell and Dahlen Ritchey, formed in 1953 to design Pittsburgh's Mellon Square and (as associate architect) the adjacent Alcoa Headquarters tower. These projects were quickly followed by the commission to design Pittsburgh's Civic Arena.

Mitchell left the partnership in 1957 to relocate out of state, and by 1959 Dahlen Ritchey had started a new practice with his good friend Russell Deeter to complete the Civic Arena project. The partnership quickly developed a reputation as an influential architecture firm in Pittsburgh with commissions to design a series of large-scale projects including Three Rivers Stadium, one of the first multi-purpose sports stadiums in the country; Allegheny Center, and multiple new higher-education buildings at the University of Pittsburgh and Carnegie Mellon University. When William Sippel was advanced to Principal from within the firm in 1964, the firm name was changed to Deeter-Ritchey-Sippel, eventually becoming DRS Architects.

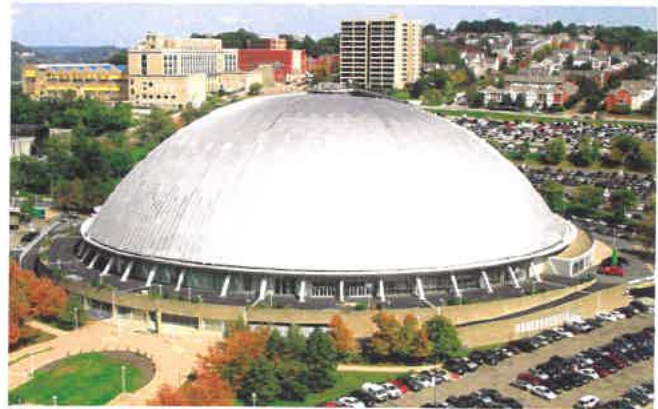
Over the course of the 1960's and 1970's, the firm continued to augment its portfolio of consequential projects in the region and around the country. By the 1980's the firm had grown to 60 people, reaching it's largest size.

The ownership of DRS transitioned from the fifth generation of principals to the sixth in 2024 with its acquisition by Sixmo Companies, a multi-discipline family of firms headquartered in Marietta, Ohio. The new partnership offered DRS access to resources not prior available to a firm of its size; provided for an expanded geographic footprint; brought in-house multi-discipline capabilities; and provided an exit transition for the fifth generation of leadership.

DRS continues to be one the region's most significant architectural firms and continues to grow and evolve with the times. We look forward to a promising future, but we always respect the path that led us to our current position.



Mellon Square with the Alcoa Building in the background



The Civic Arena



Three Rivers Stadium



Design Awards

One of the ways we measure success is from the recognition of our peers. DRS Architects' work has been the recipient of numerous design and technical awards over our many years:

2018

Mellon Square Park and Alcoa Building
Timeless Award, 50 Years
AIA Pennsylvania Special Awards



2015

University of Pittsburgh, Salk Hall
Building Excellence Award for New Construction over \$25M
Master Builder Association of Western Pennsylvania

2014

Market Square Place
Charter Award of Merit for the Best Block, Global Awards
Program for Excellence in Urban Design
The Congress for New Urbanism

Slippery Rock University Robert M. Smith Student Center
Facility Design Award
Association of College Unions International

2013

Slippery Rock University Robert M. Smith Student Center
AIA Honor Award
Pittsburgh Chapter of the AIA

Slippery Rock University Robert M. Smith Student Center
Best Education Design
IIDA New England Interior Design Awards



Westmoreland County Transit Authority Maintenance Facility
Diamond Award Certificate
American Council of Engineering Companies of Pennsylvania

2012

BNY Mellon Center Exterior Rehabilitation
Building Excellence Award for Best Renovation Construction over \$10M
Master Builder Association of Western Pennsylvania

2009

Duquesne University Power Center
Bronze Design Award
10,000 Friends of Pennsylvania

2005

Advanced Chemistry Lab, Aberdeen Proving Ground
Project Development Team of the Year Worldwide
Corps of Engineers



Relevant Projects

DRS Architects is one of the oldest practicing architectural and planning firms in the region; we have been located in Gateway Center in downtown Pittsburgh, Pennsylvania for over sixty years. The firm enjoys a long-standing reputation for design, management of the design process, control of project costs and schedules, and excellent service to our clients.

DRS has extensive experience in the design of Readiness Centers, Armories, and Reserve Centers, including designing and completing the recent renovations to the existing historic New Castle Readiness Center in New Castle, Pennsylvania—completed in 2019. Other similar projects include:

- Crane Avenue PA National Guard Readiness Center and Armory; Pittsburgh, Pennsylvania; Renovations and Addition
- Ford City Armory for the PA Army National Guard; Ford City, Pennsylvania; New Armory with Maintenance and Training
- Cambridge Springs Readiness Center and OMC for the PA National Guard; Cambridge Springs, Pennsylvania
- Johnstown Maintenance Facility for the PA Army National Guard; Johnstown, Pennsylvania
- Morgantown Army Reserve Center and OMS; Morgantown, West Virginia
- Elkins Army Reserve Center and OMS; Elkins, West Virginia
- Wheeling Army Reserve Center and OMS; Wheeling, West Virginia
- Kingwood Army Reserve Center and OMS; Kingwood, West Virginia
- Grantsville Army Reserve Center and OMS; Grantsville, West Virginia

Through the years the firm has enjoyed a solid reputation for design achievement having received over 50 design and technical awards including a national AIA award and numerous state and local awards.

- The firm received the very first Owens-Corning Fiberglass Award for Energy Conservation and also received national recognition with a High Honor Award for the design of the High Temperature Materials Laboratory at the Oak Ridge National Laboratory for the U.S. Department of Energy.
- DRS received a 2004 Citation Award from the American Association of School Administrators / American Institute of Architects / Council of Educational Facility Planners International for the Science, Technology & Cultural Center for Butler County Community College.



DRS Emphasizes strategies for sustainable design, site development, water savings, energy efficiency, materials selections and indoor environmental quality. DRS has completed multiple LEED certified projects.

On the following pages you will find individual examples of projects we designed that are relevant to your project. They also demonstrate a long history of work with federal and military clients.

Federal and Military Clients:

- Department of Energy / National Energy Technology Laboratories, Pittsburgh, Morgantown, and Albany (OR)
- Federal Bureau of Investigation, Pennsylvania and West Virginia
- 171st Air Refueling Wing, Pittsburgh, Pennsylvania
- 911th Air Wing / LGC, Pittsburgh International Airport
- Joint Armed Forces Aviation Facility, Johnstown, Pennsylvania
- US Army, Baltimore Corps of Engineers, Advanced Chemistry Lab, Aberdeen Proving Ground, Aberdeen, Maryland
- U.S. Drug Enforcement Administration, Pittsburgh, Pennsylvania and Milwaukee, Wisconsin
- Social Security Administration, Johnstown, Pennsylvania and McKeesport, Pennsylvania
- U.S. Postal Service, Western PA and West Virginia

**TAB 2: MANAGEMENT APPROACH
WORKLOAD & CAPABILITY
STAFF AVAILABILITY**

Management Approach

We have developed the management techniques, accountability protocols, and reporting methods to successfully and efficiently respond to these types of projects. Contributing to this is the direct involvement of our senior-level Principals and Project Managers who possess the technical expertise, fully understand the Client's business or mission, and have the ability to create and maintain a collaborative environment among all Team members.

Thomas F. Deter, P.E., LEED-AP, will serve as our Program Manager for this contract. He will be responsible for managing the overall Project Team and delivering all projects within budget while meeting time schedules. Tom, with over 38 years of engineering experience, has successfully managed a number of DOD projects, including several readiness centers in WV and PA, as well as HVAC and phased infrastructure upgrades for a wide variety of occupied facilities including government buildings, colleges and universities, and private industry facilities.

Brian D. Schmidt, P.E., is our overall Project Engineer for the contract. He will oversee the design team and serve as the main point of contact for project.

Our Project Management Strategy includes:

- **Experienced Project Engineers** - Each of our proposed team members for this project have over 20 years of experience and each has experience public school projects. The Project Engineers will supervise a team of Engineers, Designers, CAD Technicians and Field Personnel who will remain dedicated to the project throughout its duration. Each Project Engineer's objective is to achieve ideal balance among cost, schedule, design quality, and life cycle cost, and will direct all Team Members towards this end.
- **Establish a Dedicated Project Team That Does Not Change** - Consistency of the team is very important in keeping all personnel aligned with the objectives and goals of the project—including budget and schedules adherence. H.F. Lenz Company has one of the lowest employee turnover rates in our industry.
- **Clear and Efficient Communication** - Throughout the project ideas and knowledge are shared, processes are collectively developed, and common goals are defined. Communication is maintained throughout the entire project through team meetings, participating in benchmarking processes, telephone and teleconferencing calls, and online collaborative applications.
- **Assigning Responsibilities** - Maintaining the quality of work while meeting schedules and budgets, is achieved through an ongoing planning process involving dialogue among the various team members in the relationship. The key is the development of a mutual understanding of individual responsibilities, well-defined group goals, and the establishment of real communication. The responsibilities of each Team Member are identified for each phase of the project, from programming and design through construction and commissioning.
- **Coordination of Subconsultants** - The Project Engineers are responsible for keeping all subconsultants up to date and in the communications loop. During a project kickoff meeting, we collaborate with the Project Architect and other consultants to develop well defined and mutually understood project goals and priorities—including project budgets and schedules. We then maintain close communication with all subconsultants through project meetings, partnering sessions, telephone and teleconference sessions, email, and on-line project management applications.
- **Promoting a Collaborative Environment** - We place a high value on creating and supporting a dynamic collaborative environment among the Project Team where ideas and knowledge are shared, processes are collectively developed, and common goals are defined.

Strategy to Deliver a Quality Product

The quality of our Team's construction documents are among the best in the industry. In fact, it is not uncommon for contractors to request copies of our CADD files for their use in preparing shop drawings. Our 3D CADD and/or Revit drawings of mechanical and electrical systems have historically resulted in better coordination between trades, aided contractors in visualizing how installation is to occur, and produced more competitive bidding.

We employ several internal processes to ensure completeness and coordination of the design between the various disciplines and to reduce the number of Change Orders. These processes have been developed by our firm over time and are used on every project.

- **High Level Involvement** – Principals of our firm with extensive experience in multi-discipline projects, will be directly involved with the project throughout its duration.
- **Clear and Efficient Communications Among a Dedicated Design Team**
- **Ongoing Design Reviews**
- **Constructability Reviews**
- **Employing Experienced Field Personnel**
- **Adhering to our Quality Control Program** – By following the procedures set forth in our Quality Assurance/Quality Control plan we are able to produce high quality design documents.



Workload/Staff Availability

We have developed the management techniques, accountability protocols, and reporting methods to successfully and efficiently respond to the demands of an "open-end" type contract. Contributing to this is the direct involvement of our senior-level Principals and Project Managers who possess the technical expertise, fully understand the Client's business or mission, and have the ability to create and maintain a collaborative environment among all Team members. In the past 15 years, we have been awarded approximately 50 open-end type contracts where projects are issued to us on a task order basis, usually with quick turnaround requirements. According to our current workload projections, our team for this contract is at 40% of our workload capacity for the next six months.

Capacity

The H.F. Lenz Company presently employs 190 people in our Johnstown, Pennsylvania headquarters and our satellite offices in Conneaut, OH, Pittsburgh and Lancaster, PA and Middletown, CT. Within the firm, all engineering disciplines are represented in-house. Additionally, all of our engineers are cross-trained among the various disciplines, leading to improved communication and overall project efficiency.

The following is a breakdown of our staff capacity:

Mechanical/Electrical Division 91 Total

16 Licensed Mechanical Engineers
15 Licensed Electrical Engineers
10 Plumbing/Fire Protection
50 Technicians/CADD Operators

Civil/Structural/Survey Division 33 Total

5 Licensed Civil Engineers
5 Licensed Structural Engineers
19 Technicians/CADD Operators
4 Surveyors

Additional Staff 65 Total

25 Construction Inspectors
9 Technicians/CADD Operators
32 Administrative/Support Services

190 Total

TAB 3: ORGANIZATIONAL CHART
RESUMES
LICENSES

**West Virginia Army
National Guard**

 **H.F. LENZ**
ENGINEERING
Prime Consultant

Principal-in-Charge/Project Manager
Thomas F. Deter, P.E., LEED AP
38 Years of Experience

Project Engineer/Electrical Engineer
Brian D. Schmidt, P.E.
19 Years of Experience

 **H.F. LENZ**
ENGINEERING
MEP/FP Engineering

William A. Minahan, P.E.
Mechanical Engineer
15 Years of Experience

Justin S. Kalanish, P.E.
Mechanical Engineer
18 Years of Experience

Gregory D. Rummel, CPD.
Plumbing/FP Designer
41 Years of Experience

Keith A. Gindlesperger, P.E.
Civil Engineer
27 Years of Experience

David A. Blackner, P.E.
Structural Engineer
36 Years of Experience

 **DRS Architects**
Architectural
Design

Patrick E. Thornton, AIA
Architect
30 Years of Experience

Jon Funari, RA
Architect
40 Years of Experience



Resumes

Thomas F. Deter, P.E., LEED AP Principal-in-Charge/Project Manager

Mr. Deter has over 38 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 mixed-use developments, educational, health care, commercial, government, industrial, residential, and utility related facilities. Mr. Deter has extensive Department of Defense (DOD) project experience, and a long history of projects located in West Virginia.

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 PA, AR, ID, IL, IN, MD, NE, NJ, NC, OH, OK, OR, SD, VA and WV • LEED Accredited Professional

Professional Affiliations

NSPE/PSPE • U.S. Green Building Council

References

Stephen Mariner, P.E.
Project Manager
NASA Wallops Flight Facility
Route 175, 175 Chincoteague Rd
Building J-20
Wallops Island, VA 23337
757-824-1363
stephen.a.mariner@nasa.gov

Allen Lichvar
Supervisory General Engineer
National Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507
304-285-4042
Allen.lichvar@netl.dow.gov

Project Experience

West Virginia Army National Guard Facilities

- Camp Dawson - Three new billeting facilities
- Weirton - 16,000 SF D/B Aviation Center
- Wheeling - 24,000 SF D/B Reserve Center

Pennsylvania Army National Guard Facilities

- Crane - Renovation of 26,700 SF reserve center
- New Castle - Renovation of 23,000 SF Readiness Center
- Clearfield - Renovation of 49,760 SF Readiness Center
- Johnstown - New 23,560 SF Maintenance Facility
- Fort Indiantown Gap - New 11,000 SF Multi-purpose Building for the Challenge project and Master plan and design for a new auditorium

Maryland Army National Guard, Grantsville, MD

- New 15,300 SF training facility and maintenance shop

USACE, Aviation Center, Johnstown, PA

- New 120,000 SF multi-building reserve center

Letterkenny Army Depot, Baltimore District, Chambersburg, PA

- Seven consecutive Indefinite Delivery Contracts, over 100 projects throughout the base

Rachel Carson Building, Harrisburg, PA

- Replacement/modifications of the HVAC zone distribution ductwork, installation new VAV air terminals, control devices and ceiling diffusers throughout the 400,800 SF facility - Current DGS project

Pennsylvania State Capitol Complex, Harrisburg, PA

- Central plant upgrades including chillers

Town Place Building, Pittsburgh, PA

- Renovation of a 12-story, 280,000 SF mixed-use housing facility

Saint Joseph's Provincial House, Emmitsburg, MD

- Various facility renovations including a new boiler and chiller water plant for 309,000 SF facility

Your **ACTIVE PE** renewal fee has been received...

Your ACTIVE PE renewal fee has been received. Your pocket card indicating you are entitled to practice engineering in West Virginia until the noted expiration date may be detached and used unless invalidated as a result of Board audit of your renewal form or formal disciplinary action.

IMPORTANT REMINDERS:

- 1. Please include your WV ACTIVE PE license number on any correspondence to this office.
- 2. To use this license as a pocket card, please cut along the dotted line and laminate if desired.
- 3. You are required to immediately notify the Board, in writing, of the following: loss or theft of license or seal, any name change, any address change, or any employment change.

West Virginia State Board of Registration for Professional Engineers

300 Capitol Street, Suite 910
Charleston, West Virginia 25301
304-558-3554 Phone
800-324-6170 Toll Free
www.wvpebd.gov

**THIS IS ONE FORM OF YOUR RENEWAL RECEIPT
PLEASE SAVE THIS FOR YOUR RECORDS**

Date of Renewal: December 4, 2024
Amount Paid: \$63.00



West Virginia State Board of Registration
for Professional Engineers

THOMAS F. DETER


This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES December 31, 2026

THOMAS F. DETER
H. F. LENZ COMPANY
1407 SCALP AVENUE
JOHNSTOWN, PA 15904



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 PA, CA, IN, NC, NV, NY, MD, OH, OK, SD, VA and WV

Completion of PTW Software and Power Systems Application Courses through IEEE • Completion of Battery Technology and Battery Monitoring through Liebert Corporation

References

Ron Lincoski
Director of Facilities
Penn West University
250 University Avenue
California, PA 15419
724-938-5356
lincoski@pennwest.edu

Todd Sanders
Project Manager
NASA Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt, MD 20771
301-286-9199
todd.g.sanders@nasa.gov

Brian D. Schmidt, P.E.

Project Engineer/Electrical Engineer

Mr. Schmidt has extensive experience in 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; medium-voltage switchgear building interior and exterior electrical power distribution systems; lightning protection systems; theatrical stage dimming 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. Mr. Schmidt also has attended a 5 day SKM system analysis training course conducted by the SKM System Analysis Tech Support Group.

Project Experience

Camp Dawson, U.S. Army National Guard, Kingwood, WV

- Three new billeting facilities designed to resemble small, upscale hotels including design of the heating, cooling, ventilation, lighting, power, fire alarm, telecommunications, fire protection, plumbing, and natural gas service

Letterkenny Army Depot - Baltimore District, Chambersburg, PA

- Building 320 upgrades and renovations

U.S. Army Corps of Engineers Army Depot, Cumberland, PA

- Developed a project definition for a proposed new Army Depot a three-story billeting facility providing civil, mechanical, plumbing, fire protection, and electrical engineering services for the facility

911 Airlift Wing, U.S. Air Force, Greater Pittsburgh International Airport, Coraopolis, PA

- Visiting Offices Quarters, Building 206, renovations

Fort Detrick, U.S. Army Corps of Engineers, Frederick, MD

- Improvements and modifications to Buildings 1430, 1545, and 1546

PA Army National Guard Readiness Center, New Castle, PA Renovation to 23,000 SF readiness center

Pennsylvania State Capitol Complex, Harrisburg, PA

- Central plant upgrades including chillers

Saint Joseph's Provincial House, Emmitsburg, MD

- Various facility renovations including a new boiler and chiller water plant for 309,000 SF facility

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PLEASE SAVE THIS FOR YOUR RECORDS

Date of Renewal: December 4, 2024
Amount Paid: \$63.00



West Virginia State Board of Registration
for Professional Engineers

BRIAN D. SCHMIDT

[REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES December 31, 2026

BRIAN D. SCHMIDT
H. F. LENZ COMPANY
1407 SCALP AVENUE
JOHNSTOWN, PA 15904



Education

Bachelor of Science in Mechanical Engineering Technology, 2010, The University of Pittsburgh

Experience

H.F. Lenz Company 2010 – Present

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania

Professional Affiliations

ASHRAE – Johnstown, PA Chapter

References

Christopher L. Conroy, PE, CEM,
LEED APBD+C
Associate Director MEP
Carnegie Mellon University
Campus Design and Facility
Development
5000 Forbes Avenue
Pittsburgh, PA 15213
412-268-3879
cconroy@andrew.cmu.edu

Ryan Shank, AIA
Design Project Manager | Capitol and
Historic Division
DGS Capital Programs | Bureau of
Design Management Arsenal Bldg.
1800 Herr St. Harrisburg PA 17125
717-783-2593
ryshank@pa.gov

William A. Minahan, P.E.

Mechanical Engineer

Mr. Minahan has over 15 years' 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.

Project Experience

Clearfield Readiness Center, Clearfield, PA

- Renovations and additions to a 49,760 SF, 25-acres Army National Guard Readiness Center

Pennsylvania State Police, Greensburg, PA

- New 31,000 SF State Police Headquarters building with forensics unit and various types of lab spaces

Loysville Youth Development Center, Perry County, PA

- Renovation to the 9,012 SF Zimmerman-Bingman (ZB) Cottage - Current DGS project

National Energy Technology Laboratory (NETL), Various Locations

- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Over 100 projects complete

Rachel Carson Building, Harrisburg, PA

- Replacement/modifications of the HVAC zone distribution ductwork, installation new VAV air terminals, control devices and ceiling diffusers - Current DGS project

Town Place Building, Pittsburgh, PA

- Renovation of a 12-story, 280,000 SF mixed-use housing facility

The Pennsylvania State University, Various Campuses

- Abington Campus: New \$50M D/B Lion's Gate Student Apartment Development - LEED Gold

Temple University, Philadelphia, PA

- New 1,275-bed Morgan Hall Student Housing Development with 3-story dining pavilion and rooftop lounge - LEED Certified

Virgin Hotels, LLC., Nashville, TN

- MEP systems design reviews

DISPLAY THIS CERTIFICATE PROMINENTLY • NOTIFY AGENCY WITHIN 10 DAYS OF ANY CHANGE

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO BOX 2649 Harrisburg PA 17105-2649

License Type
Professional Engineer

License Status
Active

Initial License Date
12/23/2015



Arion R. Claggett

Acting Commissioner Arion R. Claggett

W. S. [Signature]

Signature

ALTERATION OF THIS DOCUMENT IS A CRIMINAL OFFENSE UNDER 18 PA.C.S. § 4911



Justin S. Kalanish, P.E.
Mechanical Engineer

Mr. Kalanish has 18 years of experience in the design of HVAC systems for institutional and governmental clients. His responsibilities include code compliance verification, schematic layout, calculations, equipment selection, coordination, life cycle cost analyses, cost estimating and energy modeling. His experience includes the design of mechanical systems for office buildings and educational facilities. His project experience includes:

Project Experience

Clearfield Readiness Center, Clearfield, PA

- Renovations and additions to a 49,760 SF, 25-acres Army National Guard Readiness Center

University of Pennsylvania, Philadelphia, PA

- Dubois College House - heating system replacement for a 4-story dormitory building

Town Place Building, Pittsburgh, PA

- Renovation of a 12-story, 280,000 SF mixed-use housing facility

Rachel Carson Building, Harrisburg, PA

- Replacement/modifications of the HVAC zone distribution ductwork, installation new VAV air terminals, control devices and ceiling diffusers - Current DGS project

Reading City Hall, Reading, PA

- Study and design for HVAC Upgrades - Current Project

Pennsylvania National Guard, Annville, PA

- Ft. Indiantown Gap 14,400 SF, New multi-purpose Youth Challenge Center facility

Pennsylvania State Police, Greensburg, PA

- New 31,000 SF State Police Headquarters building

State Correctional Institute (SCI), Various

- SCI Huntingdon, Huntingdon, PA - Electrical power distribution upgrades of the four original cell blocks, plus the two newer cell blocks in the maximum security correctional institution
- SCI Camp Hill, Camp Hill, PA - Replacement of steam lines and repairs to steam tunnel

New Bucks County Justice Center, Doylestown, PA

- Lower Bucks Government Service study and design for renovations/HVAC upgrades and multiple county buildings - Current Project
- New 265,000 SF facility designed to attain LEED Silver

National Energy Technology Laboratory (NETL), Various Locations

- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Over 100 projects complete

Education

Bachelor of Science, Mechanical Engineering Technology, 2007,
University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 2007 - Present

Professional Registration / Certification

Licensed Professional Engineer in PA

Reference

Christopher L. Conroy, PE
Associate Director MEP
Campus Design and Facility Development
Fax: 412-268-6976
cconroy@andrew.cmu.edu

Craig Washington
Sr. Project Manager | Design & Construction
University of Pennsylvania
445-232-0610
craigwas@upenn.edu

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO BOX 2649 Harrisburg PA 17105-2649

License Type
Professional Engineer

License Status
Active

Initial License Date
01/06/2012



Arion R. Claggett
Acting Commissioner Arion R. Claggett

Justin Kalanick
Signature



Gregory D. Rummel, CPD Plumbing/Fire Protection Designer

Mr. Rummel has designed complete plumbing and fire protection systems for parks and recreational facilities, colleges, schools, office buildings, 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.

Education

Bachelor of Science, 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

References

Todd Sanders
Project Manager
NASA Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt, MD 20771
301-286-9199
todd.g.sanders@nasa.gov

Allen Lichvar
Supervisory General Engineer
National Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507
304-285-4042
Allen.lichvar@netl.dow.gov

Project Experience

Pennsylvania Army National Guard Facilities

- Crane - Renovation of 26,700 SF Reserve Center
- New Castle - Renovation of 23,000 SF Readiness Center
- Clearfield - Renovation of 49,760 SF Readiness Center

Rachel Carson Building, Harrisburg, PA

- Replacement/modifications of the HVAC zone distribution ductwork, installation new VAV air terminals, control devices and ceiling diffusers - Current DGS project

Pennsylvania National Guard Facility, Johnstown, PA

- New 23,560 SF office and maintenance facility with eight vehicle maintenance bays

Pennsylvania National Guard, Annville, PA

- Ft. Indiantown Gap masterplan and new auditorium

Pennsylvania State Capitol Complex, Harrisburg, PA

- Central plant upgrades including chillers

Town Place Building, Pittsburgh, PA

- Renovation of a 12-story, 280,000 SF mixed-use housing facility

Candlewood Suites, Various Locations

- Property improvements and HVAC renovations
- Candlewood Suites; Prototype standards for a new line of luxury hotels for Virgin Hotels
- Fort Gordon, GA - New Army Hotel

Snowshoe Mountain Resort, Snowshoe, WV

- Expedition Station - new Residence building - Design of a 100 unit condominium building - included modular construction
- The Seneca Building - new 52-unit residence building
- New Camp 4 Condominiums
- New Highland house - 67-unit Development



Education

Bachelor of Science, Civil Engineering Technology, 1998, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 1998 – Present

Professional Registration / Certification

Licensed Professional Engineer in PA, CO, FL, GA, ID, IN, MD, NV, OR, OK, TX, UT, VA, and WV

References

Tim Kirsch
Sr. Director, Capital Projects
Robert Morris University
1001 University Blvd.
Moon Township, PA 15108
412-397-6282

Andrew Schwartz
Environmental Planning and Design
100 Ross Street, Suite 500
Pittsburgh, PA 15219
421-261-6000
AndrewSchwartz@epd-pgh.com

Keith A. Gindlesperger, P.E.

Lead Civil Engineer

Mr. Gindlesperger is a Vice President of H.F. Lenz Company and leads our Civil Engineering Team. He has over 27 years' extensive experience in civil engineering, site planning and design for military bases, DOD projects and secure facilities. He is responsible for interfacing with the Client to review the program, budget, contractual matters, establish responsibilities and allocate personnel and firm resources. His responsibilities also include overseeing site design, site utilities, parking and traffic circulation, roadway design, stormwater management, erosion and sedimentation control and permitting.

Project Experience

Clearfield Readiness Center, Clearfield, PA

- Renovations and additions to a 49,760 SF, 25-acres Readiness Center

Letterkenny Army Depot – Baltimore District, Chambersburg, PA

- Seven consecutive IDIQ contracts at Letterkenny Army Depot for Civil Engineering throughout the base: Integrated Contingency Plan; Master Planning Services; LEAD/LEMC New Rocket Motor Destruction Facility & Site Design

911th Airlift Wing, U.S. Air Force Reserve, Greater Pittsburgh International Airport – Coraopolis, PA

- Various renovations and new construction under two term contracts

SAIA Motor Freight Line LLC, Various States

- Principal-in-Charge of multi-discipline engineering services for new and renovated trucking terminals across the U.S. including recent project at Parkersburg, West Virginia

Commerce Crossing Industrial Park, Westmoreland County, PA

- New 256-acre industrial park including design of the infrastructure and creation of pad-ready sites to support large industrial type structures

Shepherd University, Shepherdstown, WV

- Civil/site design for East Campus Improvements, phase I demolition/remediation and East Loop and Gateway Arch project; N. King Street streetscape improvements

West Virginia University, Morgantown, WV

- Site design for the new Ag Sciences Building II; included site utilities, grading and drainage plan, stormwater management plan, erosion and sedimentation control plan, WV DEP Permitting, Morgantown Utility Board Approvals

United Parcel Service, Parkersburg, WV

- Evaluation and analysis of the existing pavement structure and design of a pavement management plan for the facility. Provided construction documents and construction observation services

Your **ACTIVE PE** renewal fee has been received...

Your ACTIVE PE renewal fee has been received. Your pocket card indicating you are entitled to practice engineering in West Virginia until the noted expiration date may be detached and used unless invalidated as a result of Board audit of your renewal form or formal disciplinary action.

IMPORTANT REMINDERS:

1. Please include your WV ACTIVE PE license number on any correspondence to this office.
2. To use this license as a pocket card, please cut along the dotted line and laminate if desired.
3. You are required to immediately notify the Board, in writing, of the following: loss or theft of license or seal, any name change, any address change, or any employment change.

West Virginia State Board of Registration for Professional Engineers

300 Capitol Street, Suite 910
Charleston, West Virginia 25301
304-558-3554 Phone
800-324-6170 Toll Free
www.wvpebd.gov

THIS IS ONE FORM OF YOUR RENEWAL RECEIPT

PLEASE SAVE THIS FOR YOUR RECORDS

Date of Renewal: December 23, 2024
Amount Paid: \$63.00



West Virginia State Board of Registration
for Professional Engineers

KEITH A. GINDLESPERGER

[REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES December 31, 2026

KEITH A. GINDLESPERGER
841 VERLA DRIVE
WINDBER, PA 15963



Education

Associate, Mechanical Engineering Technology, 1988, Pennsylvania State University
Associate, Architectural Engineering Technology, 1988, Pennsylvania State University

Experience

H.F. Lenz Company 1998-Present

L. Robert Kimball & Associates 1995-1998

George D. Zambas Developer 1989-1995

Professional Registration / Certification

Licensed Professional Engineer in PA, AZ, CO, CT, DE, GA, ME, MD, MA, NY, and NC

References

Carl Rundquist, P.E.
PA DGS, Bureau of Pre-Construction
684 Lake Wilhelm Rd, Sandy Lake, PA 16145
717-346-5959
crundquist@pa.gov

Paul Rothgery
Project Manager
National Parks Service
12795 West Alameda Parkway
Denver, CO 80225
303-987-6685
Paul_Rothgery@nps.gov

David A. Blackner, P.E.

Structural Engineer

Mr. Blackner is responsible for the complete layout, design and detailing of building structural systems. He has diverse experience in the structural analysis and design of projects involving steel, engineered masonry, reinforced cast-in-place concrete, pre-cast/pre-stressed concrete and wood frame structures. He is proficient in multiple analysis platforms (STAAD, RAM Structural Systems, 3-D Analysis and Finite Elements). He also oversees structural coordination with other trades, as well as conducting periodic site visits related to the structural work.

Project Experience

Pennsylvania Army National Guard Facilities, Clearfield, PA

- Clearfield - Renovation of 49,760 SF Readiness Center

Letterkenny Army Depot - Baltimore District, Chambersburg, PA

- Seven consecutive IDIQ contracts at Letterkenny Army Depot

U.S. Air Force, 911th Airlift Group/CE, Greater Pittsburgh

International Airport - Coraopolis, Pennsylvania

- Expansion of Building 130

Indiana University of Pennsylvania, Indiana, PA

- Fisher Auditorium renovation and addition including the addition to the existing boiler/chiller plant of approximately 3,700 gross SF

Carnegie Mellon University, Pittsburgh, PA

- Addition of a 900-ton chiller and cooling tower to the Physical Plant building
- Phase 2 upgrade to the Mellon Institute chiller plant, which included two new 600-ton chillers and a 700-ton cooling tower Replacement of the roof-mounted cooling towers at Physical Plant building with new four cell cooling tower totaling 3000 tons and replacement of a 500-ton chiller with an 800-ton chiller
- Replacement of the cooling towers at the Wean Hall chilled water plant, overall capacity is 3000 tons

West Virginia University, Morgantown, WV

- Arnold Hall Residential Complex and Apartments - three new natural gas-fired low pressure steam boilers with a steam capacity of 2,760 pounds per hour each

Candlewood Suites, Augusta, GA

- Design of a new 311 room, 150,000 SF hotel, the largest Candlewood Suites in the world, at Fort Gordon Army Base; designed to attain LEED Certification

Ancient City Capital, LLC, Tallahassee FL, Columbia, SC

- Structural design of two- and three-story apartment buildings within a multifamily residential development

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO BOX 2649 Harrisburg PA 17105-2649

23 0304071

License Type
Professional Engineer

License Status
Active



Arion R. Claggett

Acting Commissioner Arion R. Claggett

David A. Blahner
Signature



Patrick E. Thornton, AIA

President, **DRS Architects**

Partner, Sixmo Companies



Sixmo Companies

patrick@sixmocompanies.com

Patrick Thornton is a proud graduate of Kent State University with over thirty years of experience in the design and construction realm. Patrick has a passion for client relationship development and maintenance that he can demonstrate on a wide breadth of project types. Through a broad range of experience, he has developed problem-solving skills that can be applied to any market or client type, from residential to commercial, municipal to industrial. A drive to constantly improve as a professional inspired Patrick to become a Master Plans Examiner.

Professional Reference:

Mayor Paul Koomar
The City of Bay Village
440-899-3415
pkoomar@cityofbayvillage.com

Education:

Kent State University

Bachelor of Science in Architecture, 1996

Current Registrations:

Architect, State of Connecticut
Architect, State of Florida
Architect, State of Illinois
Architect, State of Indiana
Architect, State of Kentucky
Architect, State of Maryland
Architect, State of Michigan
Architect, State of North Carolina
Architect, State of New York
Architect, State of Ohio
Architect, State of Oregon
Architect, State of Pennsylvania
Architect, State of Wisconsin
Architect, State of West Virginia
Building Code Plans Examiner
State of West Virginia

Master Plans Examiner, International Code Council
GBCI LEED Accredited Professional

Technical Organizations:

American Institute of Architects (AIA)
International Code Council (ICC)
National Council of Architectural
Registration Boards (NCARB)
US Green Building Council (USGBC)

Featured Representative Personal Experience:

New Police Station /Firing Range | Bay Village, OH*
New Satellite Fire Stations | Stow, OH*
Municipal Service Facility | Chardon, OH*
Belmont College Burn Building | St. Clairsville, OH
Firing Range | City of Bedford Heights, OH

*Indicates a project that was completed while under the employment of another organization

Attached is your wallet card, evidence of your current registration to practice architecture in West Virginia. You will receive a renewal notice prior to the expiration date indicated.

Certificate No:



**STATE OF WEST VIRGINIA
BOARD OF ARCHITECTS**

This Certifies that:

PATRICK THORNTON

**Is duly Registered and entitled to
practice as a
REGISTERED ARCHITECT
until and including 06/30/2025**

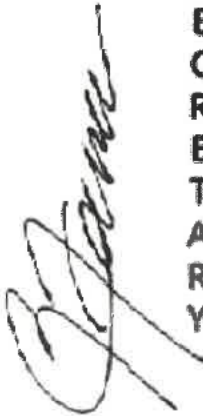


Attest

A handwritten signature in black ink, likely belonging to the President of the Board of Architects.

President

**S
E
C
R
E
T
A
R
Y**

A handwritten signature in black ink, likely belonging to the Secretary of the Board of Architects.



Jon Funari, RA

Principal, DRS Architects
Project Manager



DRS Architects

One Gateway Center, 17th Floor
Pittsburgh, Pennsylvania 15222
412-325-8617
jfunari@drsarchitects.com

In over 40 years of professional practice, Jon has worked on a wide variety of project types with an emphasis on government, higher education, laboratories, and historic architecture. He has been responsible for all phases of the architectural process, managing and designing projects from programming through construction.

Jon is a principal at DRS Architects responsible for the performance of the organization and its resources as well as the quality of our services. Jon will serve as project manager for your project.

Professional Reference:

Erin Carpenter, Architect
U.S. Department of Justice
Federal Bureau of Investigation
304-625-4226
ecarpenter2@fbi.gov

Education:

Arizona State University
Master of Architecture, 1988
University of Virginia
Bachelor of Science in Architecture, 1983

Current Registrations:

Architect, State of Pennsylvania
Architect, State of West Virginia

Technical Organizations:

National Council of Architectural
Registration Boards (NCARB)

Featured Representative Personal Experience:

PAANG 171st Air Refueling Wing Hanger
Improvements | Coraopolis, PA
52,000 SF Secured Government Facility | WV
University of Pittsburgh, Chevron Science Center
Lab Renovations | Pittsburgh, PA
Pennsylvania State Police DNA Analysis Laboratory
Greensburg, PA
Department of Energy NETL Building 1 Renovation
Albany, Oregon
Clarion University Stevens Hall and Moore Hall ADA
Improvements | Clarion PA
Dartmouth College Life Sciences Center*
Hanover, New Hampshire

*Indicates a project that was completed while under the employment of another organization



JON FUNARI

Name:	FUNARI JON
Credential ID:	5059
Expiration Status:	Not Expired
Expiration date:	2025-06-30
Renewal Date:	2024-05-29
Disciplinary Action:	N/A

TAB 4: PRIOR RELEVANT EXPERIENCE





WEST VIRGINIA ARMY NATIONAL GUARD - CAMP DAWSON

New Billeting Facilities

Kingwood, WV

Services

Mechanical,
Electrical, Plumbing
and Fire Protection

Completed

2009

Cost

\$1 million

H.F. Lenz Company provided mechanical, electrical, plumbing and fire protection engineering services for the design of three new billeting facilities for West Virginia Army National Guard, Camp Dawson. The facilities were designed to resemble small, upscale hotels. Each facility consisted of eight sleeping rooms with full baths, a common gathering area with fire place, and a full kitchen. The project included the design of the heating, cooling, ventilation, lighting, power, fire alarm, tele-communications, fire protection, plumbing, and natural gas service. Each sleeping room had individual heating and cooling control.

The construction budget for this project was \$1,000,000, which did not include site work.

Design services were completed in 2002.



PENNSYLVANIA ARMY NATIONAL GUARD

New Castle Readiness Center Rehabilitation

New Castle, PA

Services

Mechanical, Electrical,
Plumbing/Fire Protection,
Civil and Structural

Square Feet

23,000

Completed

2018

Cost

\$2.5 million

Reference

Matthew A. Dubovecky, EIT
Project Manager
PA Department of Military
& Veterans Affairs
814-533-2466
c-mdubovec@pa.gov

The New Castle Readiness Center consisted of two, two-story wings of the building with a one-story Maintenance Shop/Drill Hall which connects the two. The building is masonry type construction with stone, brick, and concrete block. Outside supporting facilities include military and privately-owned vehicle parking, fencing, sidewalks, access roads, and storage buildings as well as a vehicle maintenance facility.

H.F. Lenz Company provided the MEP/FP, civil and structural engineering services in collaboration with DRS Architects, providing architectural services, for the rehabilitation of the New Castle Readiness Center.

This project was focused on the Readiness Center or the main building. The size of the existing facility was approximately 23,000 SF. The facility houses approximately 120 soldiers from the 107th Field Artillery Battalion for the Pennsylvania Army National Guard. The original building was constructed in 1938 and housed the Calvary Units, which included administrative offices, stables, and a riding hall, which is now the Drill Hall.

The rehabilitation scope of work included:

- Exterior architectural improvements
- Interior architectural improvements
- Electrical upgrades consisting of new electrical service, new distribution equipment and panelboards throughout. New lighting and receptacle layouts are also included as part of the renovation. Fire alarm system and emergency lighting will be updated throughout the building, and a connection for a future generator will be incorporated into the design.
- HVAC work included replacement of two existing steam boilers with two high-efficiency gas boilers; the addition of energy efficient air-conditioning systems for office, classrooms, fitness rooms and other areas; the addition of a new kitchen exhaust hood; and the integration of a new web-based DDC control system. All plumbing fixtures and piping systems throughout the building were replaced as part of the toilet facilities upgrade. Electrical work included upgrades to the distribution system; LED interior lighting throughout the building; new site lighting; replacement of branch panelboards, conduit, and feeders; and a new building wide addressable fire alarm system.
- The plumbing scope of work includes replacing water heaters, providing a new domestic water service and piping, updating the sanitary sewer and vent piping, modifying the natural gas service and piping to accommodate the increased loads, renovations to the toilet rooms and shower rooms throughout the building, and providing new roof drains.

Project with



DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction
Administration



PENNSYLVANIA ARMY NATIONAL GUARD

Crane Readiness Center Rehabilitation

Pittsburgh, PA

Services

Mechanical, Electrical,
Plumbing/Fire Protection,
Communications and
Structural

Square Footage

26,700

Completed

2018

Cost

\$3.1 million

Reference

Matthew A. Dubovecky, EIT
Project Manager
PA Department of Military
& Veterans Affairs
814-533-2466
c-mdubovec@pa.gov

H.F. Lenz Company provided the MEP/FP, communications and civil engineering services in collaboration with DRS Architects, providing the architectural services, for the renovation of the Crane Readiness Center which houses 250 soldiers of the 128th Brigade Support Battalion, PA Army National Guard.

The existing facility was a 26,700 SF, two-story Reserve Center of permanent masonry type construction, brick and concrete block units with concrete floors, and a built-up or membrane roof system. The scope of work for the project included:

The rehabilitation scope of work included:

- HVAC & electrical system evaluation and improvements
- Bathroom rehabilitation/installation of low-flow fixtures
- American with Disabilities Act compliance upgrades
- Code compliance upgrades
- Bituminous pavement demolition/replacement/expansion
- Chain-link fencing and gates
- Exterior lighting
- Antiterrorism/force protection requirements around the perimeter of the property
- Masonry re-pointing
- Emergency generator supporting up to 35% of facility's load requirements
- Construction of a 3,000 to 5,000 SF heated storage building equipped with supply caging
- Parking lot lighting
- Roof replacement
- Elevator installation

Project with



DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction
Administration

Mechanical, plumbing, and electrical work mainly involved the replacement of existing systems, such as heating boilers, exhaust fans, maintenance shop vehicle source-capture exhaust reels, water heater, plumbing fixtures, emergency generator, and electrical distribution panels. New lighting was also provided in the office wing corridors resulting from the necessary abatement and replacement of the existing plaster ceilings in those areas. Several rooms were remodeled for new programming needs to include architectural, electrical, IT and HVAC improvements.

This facility also houses a weapons vault which will be equipped with an electronic Entrance Security System (ESS).



PENNSYLVANIA ARMY NATIONAL GUARD

New Ford City Armory

Ford City, PA

Services

Mechanical, Electrical,
Plumbing & Fire Protection

Square Footage

24,000

Completed

1998

Cost

\$2.4 million

Reference

Major John Saufley, PE
PA Army National Guard
717-861-8212

Project with



DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction
Administration

H.F. Lenz Company provided the MEP/FP engineering services in collaboration with DRS Architects providing architectural services, working closely with the Pennsylvania National Guard, the Department of Military Affairs, and the Department of General Services in developing the design for a new armory and surrounding site. The process involved the creation and evaluation of several design options that were revised and refined until the design reached the most functional solution that met the requirements and goals of that National Guard Unit.

The armory was the first building constructed in the new Manor Township Business Park in Ford City. With an area of 24,400 square feet, it houses the following:

- Educational Space, including classrooms with folding partitions, a library, and a learning center
- An Assembly Area and Drill Hall, along with the supporting Unit storage rooms, kitchen and food preparation area, table and chair storage, facility maintenance storage, arms vault, and fitness room
- Maintenance and Training Area, which includes a work bay, flammable storage room, and a controlled waste area
- Administrative Spaces that include the recruiting office, staff offices, and a general office space
- Common Spaces, including the lobby, break room, restrooms, and locker rooms

For durability, ease of maintenance, and a long life the building is constructed of load-bearing masonry walls. Exterior walls are a combination of utility brick and split-face concrete masonry units with recessed accent strips. The entrance is expressed by an exterior patio enclosed by the building walls but open to the sky above. Glass block was used to allow natural light into the assembly area and the maintenance bay while still providing added durability.



U.S. ARMY RESERVE CENTER AND OMS

Grantsville Reserve Center

Grantsville, WV

HFL Services

Mechanical, Electrical,
Plumbing/Fire Protection,
Civil and Structural

Square Footage

15,300

Completed

1998

Cost

\$4.5 million

Reference

Margie Marcus, Design
Manager
US Army District,
Baltimore
Corps of Engineers
410-962-6790

H.F. Lenz Company in collaboration with DRS Architects, provided the architectural/engineering design services for the construction of a 15,300 SF Training Building and 2,400 SF OMS. A site delineation study and engineering feasibility study were required to determine the viability of the selected site.

The Training Building contains full-time staff offices, unit exclusive offices, unit common space, retention office and administrative support. Assembly areas include: assembly hall, chairs/table storage, kitchen, arms vault, and armorer. Educational facilities include: classrooms, library reading room, library storage, learning center, training aid storage, COMSEC training, and COMSEC storage. Special training areas include: weaponer room and special projects classroom. Storage areas include unit and individual storage, staging area and supply offices. A completed interior design package was developed for this facility.

The OMS contains shop office, tool and parts storage, parts storage, battery storage and charging, flammable storage, hazardous storage and toilet. The maintenance area consists of a double-work bay and single-wash bay. This project was completed in 1998, the construction cost was \$4,500,000.

Project with



DRS Services

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction
Administration



U.S. ARMY RESERVE CENTERS

New Reserve Centers

Morgantown, Kingwood and Elkins, WV

HFL Services

Mechanical, Electrical,
Plumbing/Fire Protection,
Civil and Structural

Square Feet

Various

Completed

1996

Cost

\$12 million

Reference

Margie Marcus, Design
Manager
US Army District,
Baltimore
Corps of Engineers
410-962-6790

H.F. Lenz Company in collaboration with DRS Architects, provided the architectural/engineering design services for the design of three new U.S. Army Reserve Centers each having a Training Building (Armory) and an Organizational Maintenance Shop (OMS) in Morgantown, Elkins and Kingwood, West Virginia. The Design Team was responsible for site planning, space planning, facility design, design analysis, construction schedule, construction drawings and specifications, interior design, and the selection of furniture for all three of these Reserve Centers.

The 300-member Morgantown reserve center is located on an eight-acre site and contains 21,700 SF of space in the main building and 5,500 SF in the four bay OMS building.

The 60-member Elkins Reserve Center is located on a four-acre site and provides 12,000 SF of space in its main building and 4,200 SF in the three-bay OMS building.

The 100-member Kingwood Reserve Center is located on a five-acre site with 19,000 SF in its main building and 5,000 SF in the four-bay OMS building along with an additional 600 SF of covered outdoor storage.

All three facilities contain Administrative Spaces with full time staff offices, Unit-exclusive offices, Unit common spaces, a Retention office, education spaces such as classrooms, a learning center, a library, a COMSEC training room, storage spaces for Unit, individual storage, COMSEC storage, assembly area, kitchens, arms vault, and ancillary spaces. The OMS Facilities contain work bays, wash bays, shop offices, battery rooms, tool storage, parts storage and flammable/hazardous materials storage areas.

Project with



DRS Services

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction
Administration



PENNSYLVANIA ARMY NATIONAL GUARD

Cambridge Springs Readiness Center and OS

Cambridge Springs, PA
HFL Services Mechanical,
Electrical, Plumbing/Fire
Protection, Civil and
Structural

Square Footage

65,000 Readiness Center
20,000 Maintenance Bldg.

Completed

2008

Cost

\$19 million

Reference

Mark Austin, Director
Bureau of Facilities & Eng.
Dept of Military & Veterans
Affairs
717-861-2915

Project with



DRS Services

Architectural Design
Interior Design Project
Management
Engineering Coordination
Construction Administration

H.F. Lenz Company in collaboration with DRS Architects, provided the architectural/engineering design services for this facility which includes two buildings—a two-story, 65,000 SF Readiness Center and a 20,000 SF Maintenance Facility.

The Readiness Center is designed to support the consolidation of three Units, totaling nearly 450 reservists. Each Unit has dedicated locker rooms, storage rooms, arms vaults, and administrative offices to allow independent operations. Facilities shared by the three Units include a medical clinic, a fitness room, an assembly hall with full-service kitchen, four large classrooms, break areas, general administrative offices, and a recruitment center. The building was designed for community use of the assembly hall and adjacent restrooms while locking out the remainder of the facility. The site development and building construction were designed to meet the Anti-Terrorism and Force Protection Level established for the facility.

The Maintenance Building is 20,000 SF in area and is designed to provide field maintenance support for Unit vehicles and equipment. The facility consists of six maintenance bays, two of which are serviced by a 15-ton overhead crane (including a warm-up bay and a welding bay). The building also houses administrative, personnel, storage, and work areas. The maintenance bays are each 32' by 74' and designed as drivethrough bays sized to accommodate the largest equipment assigned to the facility. This building also includes a wash rack, an exterior fuel storage and dispensing system, a controlled waste handling facility, and a separate building for miscellaneous storage. The work space is heated with an in-slab radiant hot water pipe system supplemented by gasfired radiant heaters at the overhead doors. Each work bay is equipped with vehicle exhaust removal, compressed air service, an overhead power reel, and multiple 220v receptacles.

Both buildings are constructed with structural steel framing, concrete masonry unit walls, and a brick veneer. The Readiness Center was designed to achieve a SPiRiT bronze rating for energy and environmental design.



LETTERKENNY ARMY DEPOT - BALTIMORE DISTRICT

Building 350 and Building 320 Renovations and HVAC Upgrades

Chambersburg, PA

Services

Mechanical, Electrical,
Plumbing/Fire and
Structural Engineering

Square Footage

375,000

Completed

2008

Cost

\$6.7 million

Reference

Brandon Kohler
Directorate of Public
Works
Engineering Branch Chief
Letterkenny Army Depot
1 Overcash Avenue
Chambersburg, PA 17201
717-267-8853

Building 350 Renovation

H.F. Lenz Company provided the engineering services for a multi-phase project to replace, upgrade and expand the HVAC system capacity for Building 350. The building totals approximately 375,000 SF and is used for military vehicle reconditioning and includes paint shops, welding shops, machine shops, warehouse space, and office areas. The overall project was separated into manageable smaller projects that were completed with minor disruption to the vehicle reconditioning operations.

The entire building exhaust system was upgraded which involved the replacement of twelve 21,900 cfm roof mounted exhaust fans, and design of additional fans to improve overall building ventilation.

Building 320 Improvements

H.F. Lenz Company provided the engineering services for the renovations and HVAC upgrades to the 70,200 SF building, which houses a Vehicle Wash Bay, Vehicle Paint Area, equipment and storage rooms, office support area, shower and locker room, and multipurpose break room. The project included:

- Evaluation and documentation of existing conditions
- Assistance with scope development
- MEP System upgrades, HVAC upgrades included:
 - Removal of abandoned steam supply and return piping and associated terminal equipment, insulation, hangers and controls
 - Integration of the radiant gas heat and the existing solar wall to control the radiant heat to be energized after the solar wall heat has been expended
 - New air handling units and automatic temperature controls
 - New unit heaters and venting
 - New ventilation systems
 - Wash Bay ventilation system
- Locker room and restroom improvements
- Office reorganization and adding new hard walls in reconfigured office space
- Hazardous material abatement
- Upgrades to Breakroom casework and finishes
- Interior finish updates
- Painting of high bay areas and safety zones
- Replacement of overhead doors
- Flat roof replacement and fall protection
- Cost Estimating



PENNSYLVANIA ARMY NATIONAL GUARD

Clearfield Readiness Center Rehabilitation

Clearfield, PA

Services

Mechanical, Electrical,
Plumbing/Fire
Protection, Civil and
Structural

Square Feet

49,760

Completed

2023

Cost

\$4.2 million

Reference

John S. Wert, RA
PA Department of
General Services
717-346-5948
johwert@pa.gov

The Clearfield Readiness Center was constructed in 1938 and is listed on the Historical Register. It was built for Troop A, 103rd Cavalry of the Pennsylvania National Guard. The facility is 49,760 SF and covers 25-acres. The focus of this rehabilitation project was multiple code upgrades, restoration work, Force Protection (FP) enhancements, energy upgrades and general repairs.

H.F. Lenz Company provided the MEP/FP, civil, and structural engineering services for the renovation of the Clearfield Readiness Center.

The scope of work for the project included:

- New HVAC systems, which meet the Department of Defense and UFC criteria
- Upgrade the entire electrical service and distribution system to meet the new building loads
- Replace existing building lighting system with LED lighting
- New fire alarm system and mass notification system
- New standby generator to provide back-up power
- Renovate bathrooms and plumbing fixtures throughout
- Replace the sanitary, vent, hot water and cold water piping throughout the building
- Upgrade kitchen systems to meet code
- Expand bituminous concrete POV parking area by 10,000 SF
- Reconfigure front entranceway to eliminate direct vehicle path to the front entrance of the building
- Construct loading dock
- Structural engineering evaluations in select areas

Designed in compliance with United Facility Criteria (UFC) 04-010.01 DOD Minimum Antiterrorism Standards for Buildings.

Integrating historic preservation aspects into the design was a key aspect to maintain the building's eligibility for the National Historic Register.



WEST VIRGINIA UNIVERSITY

Evansdale Campus Chiller Replacements

Morgantown, WV

Services

Mechanical, Electrical,
Plumbing & Structural
Engineering

Completed
2018-2023

Reference

Mr. William Jolliff, MCP
Facilities Engineer
West Virginia University
304-293-9592
William.jolliff@mail.wvu.edu

Team Members

- Joel C. Shumaker,
Electrical Engineer
- John M. Weiland,
Mechanical Engineer
- David A. Blackner,
Structural Engineer

H.F. Lenz Company provided the Mechanical, Electrical, and Structural engineering services for multiple chiller replacements on the Evansdale Campus of West Virginia University. The capacity increase was needed to serve additional campus buildings.

The scope of services included the design for the replacement of existing chillers one, two and three with similar size centrifugal chillers.

Chiller #1 - Completion Date: 2021

- Demolition of existing Chiller #1
- Installation of replacement chiller
- Investigate maximum chiller tonnage that can be supported by existing electrical feeder, switchgear, pumps, piping, cooling tower capacity, and physical space

Chiller #2 - Completion Date: 2018

- Demolition of existing Chiller #2
- Replacement of previous chiller with new centrifugal chiller with similar size of 420 tons

Chiller #3 - Completion Date: February 2023

- Demolition of existing Chiller #3 and associated isolation valves
- Installation of replacement chiller
- Replacement chiller will match the 450 ton Trane Agility machine that was used for the replacement of Chillers 1 and 2

Strategies Implemented that Improved Outcome or Unique Characteristics that made the Project Interesting or Challenging

- Design incorporated VFDs for improved capacity control and efficiency
- Upgraded refrigerant monitoring system
- Increased plant capacity by using chillers that did not require infrastructure upgrades such as power feeds or pumping



WEST VIRGINIA STATE CAPITOL COMPLEX

Study and Design for New Central Chilled Water Plant

Charleston, WV

Services

Mechanical, Electrical,
Plumbing, & Fire Protection

Square Footage

4,500

Completed

2002

Cost

-

Reference

Timothy Lee
Assistant Director
304-558-5672

The H.F. Lenz Company was hired to determine the most cost effective and energy efficient method for supplying chilled water to seven buildings (1.3 million SF) making up the West Virginia State Capitol Complex. Each of the seven buildings had its own chiller plant with many of the 15 chillers approaching the end of their useful life.

A detailed engineering analysis of three options was developed that included project scopes, conceptual drawings, calculations, and detailed cost estimates and calculations of energy and maintenance cost savings.

The H.F. Lenz Company showed that constructing a new central chiller plant with a main chilled water distribution loop would result in the lowest energy costs and maintenance costs with a payback period of four years.

The new chiller plant consists of three 1,200-ton and two 600-ton industrial grade centrifugal chillers along with their associated cooling towers, free cooling heat exchangers, chilled water and condenser water pumps, and automatic temperature controls. Variable speed drive pumping is incorporated for energy savings.

The new chilled water distribution system consists of approximately 5,000 feet of direct burial chilled water piping of various sizes. The seven Capitol Complex buildings are connected to this central loop by chilled water bridges.

The H.F. Lenz Company also provided the architectural and structural design work for the 4,500 SF chiller plant. A new facade was provided on two sides of the building, and a new internal structural framework was provided for support of the piping mains and cooling towers.



Social Security Administration, Woodlawn, MD

- Retrofit of the existing central chilled water plant including the addition of a primary/secondary pumping system, addition of a new 1,250-ton variable frequency drive chiller system, 1,250-ton cooling tower to increase the available capacity of the central plant to 5,000 tons, and chiller optimization control system

Carnegie Mellon University, Pittsburgh, PA

- Chilled water master plan
- Addition of a new 1,000-ton chiller and new heat exchanger for 900-tons of free cooling
- Connection to the FMS chiller plant for the CIC Parallel Data lab which included routing chilled water pipes from the FMS chiller plant to the CIC building - and a new set of chilled water pumps
- Phase 2 upgrade to the Mellon Institute chiller plant, which included two new
 - 600-ton chillers and a 700-ton cooling tower
- Study to evaluate the chilled water plant to support the Gates Building and other long-term campus needs
- Replacement of the roof-mounted cooling towers at Physical Plant building with new four cell cooling tower totaling 3000 tons and replacement of a 500-ton chiller with a 800-ton chiller
- Addition of a 1,000-ton chiller at Wean Hall chiller plant
- Replacement of the cooling towers at the Wean Hall chilled water plant, overall capacity is 3000-tons
- Study to evaluate options to increase the cooling tower capacity at the FMS chiller plant
- Phase 1 upgrade to the Mellon Institute chiller plant, which included a new 400-ton chiller and a 600-ton cooling tower
- Addition of a 900-ton chiller and cooling tower to the Physical Plant building



University of Pittsburgh, Pittsburgh, PA

- Chilled water master plan
- Lower campus chilled water plant

AHN West Penn Hospital, Pittsburgh, PA

- Upgrade cooling system for AHU 4, included the addition of a water-cooled modular chiller and pumps to directly serve the AHU cooling coil
- Replaced AHU 16 that included the additional of a water-cooled modular chiller and pumps to directly serve AHU 16 cooling coil

Indiana Regional Medical Center, Indiana, PA

- New Behavior Health Hospital with a 150-ton air-cooled glycol chiller, included emergency electrical and mechanical connections for a temporary/portable chiller





Metrohealth Rammelkamp Clean Room, Cleveland, OH

- Design of independent air-cooled chilled water system with propylene glycol to maintain laboratory temperature and humidity requirements.
- Redundancy includes two air cooled chillers with separated buffer tanks and pump package

Veterans Affairs Medical Center, Philadelphia, PA

- Building 31 - Replacement of three existing inefficient R-11 900-ton chillers and their associated cooling towers, primary secondary chilled water pumps, and condenser water pumps
- Research Building - New 500-ton variable speed chiller, new cooling tower, pumps and piping and DDC controls
- Replacement of the two existing air-cooled chillers that served as backup cooling for the operating room air handling units
- Addition of a fourth 1,100-ton chiller and cooling tower to the main chiller plant



Veterans Affairs Medical Center, Pittsburgh, PA

- New 1,250-ton chiller and replacement of three existing 750-ton cooling towers with three new 1,250-ton cooling towers

UPMC Altoona, Altoona, PA

- Added a 3rd Chiller (4160V with VFD), cooling tower and associated pumps
- Replaced two existing multi stage vertical pumps with three new to serve the condenser water system
- New 10,000 SF 4,000-ton boiler and chiller plant adding two, 800-ton electric centrifugal chillers with space allocated for an additional 800-ton machine into a previously designed 1,600-ton system

Children's Hospital of Pittsburgh, Pittsburgh, PA

- New 1,050-ton chiller plant including three 350-ton centrifugal chillers and integration with the existing 1,500-ton system

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

- New 6,000-ton central chilled water plant

Heritage Health System, The Medical Center, Beaver, PA

- 2,350-ton chilled water plant with smaller 350-ton chiller for mild weather

Somerset Area School District, Somerset, PA

- Replaced failing existing chiller with a new 70-ton air-cooled chiller

Penn State Milton S. Hershey Medical Center, Hershey, PA

- Satellite chiller pump replacement





WEST VIRGINIA UNIVERSITY

Multiple HVAC Project Upgrades

Morgantown, WV

Services

Mechanical, Electrical,
Plumbing, Fire Protection,
Commissioning, Civil,
Structural

Completed

Various Dates

Cost

Varies

Reference

Zenaba Qadeer
Construction Manager
West Virginia University
PH: 304-276-7364
Zenaba.qadeer@mail.wvu.edu

H.F. Lenz Company has provided multi-discipline engineering services for West Virginia University for over 25 and has held seven term contracts, which have included HVAC System Replacements, chillers, and other various facility upgrades.

A few of our HVAC projects have included:

- Towers Dormitories Renovations: Four-building high-rise complex housing 1900 students located on the WVU Evansdale Campus.
- Potomac State College's Church-McKee Arts Center Chiller Replacement
- Chilled Water Line Extension to Admissions & Records Building, Eiesland Hall
- Evansdale Cooling Tower Replacement
- Pettito Building Structural Condition Assessment
- Communications Building Print Shop HVAC Evaluation
- Communications Building HVAC Retrofit
- Commissioning Services for White Hall Chiller Plant
- Woodburn Hall: Four-story historic building built in 1874 located at the WVU Downtown Campus.
- Creative Arts Center: Home of the College of Creative Arts, this building was built in 1969 and contains 50 classrooms, numerous studios, and a 1,400-seat concert theater.
- Charles Wise Library renovations
- Wise Library Special Collections HVAC Evaluations
- Chemistry Research Laboratory: Five-story building located at the WVU Downtown Campus.
- Mountainlair AHU 5 replacement
- Clark Hall AHU 15 sequencing
- Armstrong Hall AHU 1 and 2 replacement
- Chitwood Hall AHU replacements
- Lyons Tower AHU J and Q replacement
- Brooke Tower AHU 7 replacement
- Student Recreation Center Steam Line Relocation
- Chemistry Building Lab Exhaust Upgrades and AHU Replacement
- Fieldcrest Roof Top Unit Air Handler Replacement
- Demolition of Beechurst Boiler Plant
- Conversion of Former Medical Center Boiler Plant for Use by the University's Grounds Department

WEST VIRGINIA UNIVERSITY

Multiple HVAC Project Upgrades

Eiesland Hall HVAC Renovation

Built in 1954, Eiesland Hall is a 60,000 SF general purpose classroom building located on the Downtown Campus of West Virginia University. For this project, H.F. Lenz Company provided Mechanical, Electrical, and Plumbing/Fire Protection engineering services to renovate the third and fourth floors into classrooms.

The scope of work included the following:

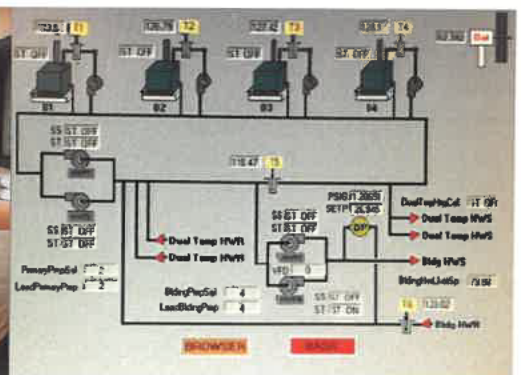
- Extended chilled water from campus central chiller plant to the building to shift load from less efficient building chillers to more efficient central chilled water plant. New controls were installed to measure building chilled water flow and regulate campus flow to help maintain building delta T
- Replaced two constant volume, multi-zone air handlers with a single new variable volume air handling unit and converted air distribution system to variable air volume. New DDC Air Handler controls were incorporated to control scheduling and discharge air temperature and airflow control.
- Designed a new hot water system (produced by campus steam) to serve VAV box reheats and perimeter heating. Control system designed to maintain hot water system temperature and variable speed pump flow setpoints.
- Renovated third and fourth floors to provide three 30-seat classrooms and one 20-seat classrooms on each floor.

Engineering Sciences Building Renovation

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

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

Construction was phased to allow partial occupancy of the building.



MARRIOTT WATERFRONT PLACE HOTEL

Conversion to Full Service Marriott

Morgantown, WV

Services

Mechanical, Electrical, Plumbing

Square Feet

400,000

Completed

Study 2014

Renovations 2016

Cost

\$7 Million

Reference

Randy Kunert, Project Manager

303-991-6073

rkunert@sbcos.com

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:

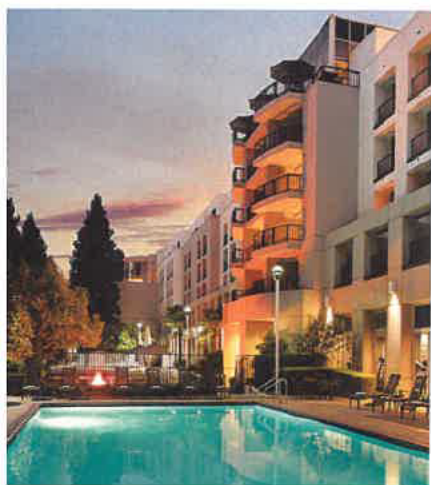
- Domestic Water Heating Upgrades
- Correcting Guestroom Corridor Air Issues
- Designing Guestroom Corridor HVAC Controls
- Fire Alarm Upgrades
- Life Safety Upgrades
- Stairwell Pressurization
- Sprinkler System Upgrades
- New DDC Building Automation System
- Exterior Lighting and Signage

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

Phase I included: 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 included the function spaces, pre-function spaces, ballroom, meeting rooms, board rooms, and event center.

The study was completed in 2014, and the renovations were completed in 2016.



Hyatt Hotels Property Improvement Projects, Various Locations - Currently in Design

- Hyatt Tempe/Phoenix Airport
- Hyatt San Antonio/Riverwalk
- Hyatt Orlando Airport
- Hyatt Nashville/Hendersonville
- Hyatt Mount Laurel
- Hyatt Kansas City Overland
- Hyatt Indianapolis Airport
- Hyatt El Paso Airport
- Hyatt Detroit/Utica
- Hyatt Dallas North Galleria
- Hyatt Columbus/Dublin
- Hyatt Colorado Springs
- Hyatt Charlotte Airport
- Hyatt Dulles Airport
- Hyatt Atlanta/Cobb Galleria
- Hyatt Atlanta South

Hyatt House, Various Locations

- Hyatt House Cleveland, OH Conversion Project
- Hyatt House Pittsburgh/Cranberry, PA Conversion Project
- Hyatt House Cincinnati, OH Conversion Project
- Hyatt House Birmingham, AL Conversion Project

Marriot Hotel, Various Locations

- San Roman, CA - Marriot Concierge Lounge Renovation - In design
- Los Angeles, CA - Westin Buckhead Club Lounge Conversion - In design
- LAX Airport - Lounge Renovation

Toftrees Golf resort, State College, PA

- New build, Hotel/Condo Resort - In design

Judge Doyle Square Embassy Suites, Madison, WI

- New 262 room hotel - In design

University of Wisconsin, Hilton Garden Inn, Madison, WI

- New nine-story 176 room hotel - Completed 2022

Best Western, Aurora, IL

- New 100 room hotel - Design development

Courtyard Marriott, Denver, CO

- New 180-200 room hotel, approximately 110,000 SF, eight stories - 2020

New Haven Hotel, New Haven, CT

- Lobby renovation - 2020

Hampton Inn, North Port, FL

- New 104 room hotel - 2020

Project Experience



Holiday Inn Express, Lockport, IL

- New 80 room hotel – 2020

DoubleTree, New Orleans, LA

- Guest room upgrades (325 rooms), lobby renovations – 2020

South Pointe Mixed-Use Facility, Washington, PA

- New six floor, 125,000 SF building with below grade parking and three floors containing 90 guest rooms and two floors of office space – 2020

Candlewood Suites, Lend/Lease, Aberdeen Proving Grounds, MD

- New 69 room hotel – designed to attain LEED Certification – In construction

Candlewood Suites, Lend/Lease, Augusta, GA

- New 311 room hotel – designed to attain LEED Certification – 2020

Springhill Suites, Bristol, WI

- New 96 room hotel – 2019

Hyatt House West Chester, West Chester, OH

- New 132 room hotel – In construction

Hyatt Place, Colorado Springs, CO

- Guestroom ADA upgrades – 2019

Hyatt Place, Milwaukee, WI

- New 150 room hotel – 2018

Hyatt House, Oak Brook, IL

- New 144 room hotel – 2017

Hyatt House on Baum, Pittsburgh, PA

- New 130 room hotel – 2015

Hyatt House, Pittsburgh Southside, Pittsburgh, PA

- New 120 room hotel – 2013

Hyatt Place, Lincolnwood, IL

- New 110 room hotel – Design development

Hyatt Place, McAllen, TX

- New 110 room hotel – Design completed

Courtyard Blackstone, Fort Worth, TX

- Guest room and lobby upgrades – 2019

Hilton Hotel, Seattle, WA

- Guest room upgrades – 2019

Hyatt Place, New Orleans, LA

- Kitchen upgrades – 2019



Project Experience



Marriott Courtyard Blackstone, Fort Worth, TX

- Guest room upgrades (203 rooms) – 2019

Marriott Residence Inn, Bolingbrook, IL

- New 103 room hotel – 2016

Hudson Advisors, Multiple Locations

- Prototypical designs for upgrades to guestrooms (approx. 2,100 rooms) and public spaces for renovations to multiple Marriott Hotels



Marriott, Cincinnati North, West Chester, OH

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016

Marriott, Cincinnati Northeast, Mason, OH

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016

Marriott, Cincinnati Northwest, Dublin, OH

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016



Marriott, Birmingham, AL

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016

Marriott, Dallas Fort Worth, TX

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016

Marriott Hartford, Windsor, CT

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016

Marriott Cincinnati Airport, Hebron, KY

- Guest room upgrades involving new bathrooms and upgrades to electrical systems – 2016



The Street @ The Meadows, Pittsburgh, PA

- New 134,000 SF mixed use development with 100 apartments, two restaurants and 18 retail tenants – 2015

Residence Inn, Bolingbrook, IL

- New 103 room hotel – 2015

Waterfront Place, Morgantown, WV

- Renovation of a 205-room hotel – 2015

Doubletree, New Orleans, LA

- Lobby and guest room (325 rooms) renovations – 2015

Homewood Suites, Washington, DC

- Lobby renovation for a 175 room hotel – 2015

Project Experience



Residence Inn Durham, Durham, NC

- New 145 room hotel – 2015

Knoxville Courtyard, Knoxville, TN

- New 130 room hotel – 2014

Ottawa Residence Inn, Ottawa, CN

- New 130 room hotel – project designed but not built – 2014

Residence Inn, Durham, NC

- New 130 room hotel – 2014



Parkway Center Inn, Pittsburgh, PA

- Renovation of a 100-room hotel – 2013

Cranberry Courtyard, Cranberry Township, PA

- New 130 room hotel – 2012

Tanger Courtyard by Marriott, Pittsburgh, PA

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

North Shore Hyatt, Pittsburgh, PA

- New 7-story, 180-room hotel – 2010

Settlers Ridge Courtyard by Marriott, Pittsburgh, PA

- New 79,000 SF 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, Snowshoe, WV

- Corduroy Inn – Phase II feasibility study for a new 100-room condominium (in progress)
- New 63,000 SF Camp 4 Condominium Development
- 70,000 SF Highland House Condominium Development
- 158,000 SF 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 SF, 500 room hotel



CITY OF READING

City Hall HVAC Evaluation and Design

Reading, PA

Services

Mechanical, Electrical,
Plumbing, Fire Protection

Cost

\$2.5 million

Reference

David W. Anspach III
Capital Projects Manager
City of Reading
David.Anspace@ReadingPa.gov
o. 610-655-6502
c. 610-301-2728

H.F. Lenz Company is currently providing the mechanical, electrical, plumbing and fire protection engineering services for the evaluation of the City Hall HVAC system, design engineering services, technical specification preparation, and construction management services.

Phase 1 of the project involved the evaluation of all aspects of the HVAC system, including:

- Full review of Heat and Cooling systems
- Recommendation on alternative systems
- Design Engineering of replacement systems where necessary
- Zoned thermostatic control
- Automatic operating control- alternate heating or cooling as necessary
- 100% duct cleaning, replacement, or new where necessary
- O&M manual to include future maintenance schedule documents
- Energy Efficiency
- User Friendly
- Covid-19 or contagion prevention

We are currently working on Phase 2 of the design which will include a significant number of phases due to the need for the building to remain fully occupied throughout construction.



NATIONAL ENERGY TECHNOLOGY LABORATORY

Building 1 - Phased Renovation of Four-Story Building

Morgantown, WV

Services

Mechanical, Electrical,
Plumbing and Fire
Protection

Square Footage

51,000

Completed

2017

Cost

\$3,700,000 - Phase 1

\$5,544,000 - Phase 2

Reference

Mr. Allen K. Lichvar
U.S. Department of
Energy
National Energy
Technology Laboratory
304-285-4042
allen.lichvar@netl.doe.gov

H.F. Lenz Company provided multi-discipline engineering services through our second consecutive Indefinite Delivery, Indefinite Quantity (IDIQ) for NETL sites in Bruceton, PA, Morgantown, WV, and Albany, OR. In total, NETL's facilities include 81 buildings and 14 major research facilities on nearly 200 acres. We have completed more than 70 work orders including a Facilities Assessment Project (71 Buildings) on the Pittsburgh and Morgantown Campuses and various building systems upgrades on all three campuses.

This project involved the phased renovations of the four-story, 51,600 SF Building 1 located in Morgantown, WV. The government fully occupied those portions of the building not under renovation. The building alterations incorporated the High-Performance Sustainable Building Guidance Principles.

Constructed in 1952 and renovated in 1992, the building accommodates a variety of office functions. With changes in usage and consolidation of services, the floor layouts were reconfigured into private offices and open office cubicles utilizing an inventory of existing open office system components. This modification increased the corridor width, which provides a more open public circulation flow both visually and physically, reducing the "tunnel effect" of long corridors.

Mechanical system upgrades included replacement of four air handling units with modular, double wall, indoor air handling units which include a full airside economizer, two steam-to-hot water shell and tube heat exchangers, and replacement of building chilled water piping.

Plumbing changes include replacement of all vertical water, waste and vent piping. Rainwater harvesting was analyzed but was not incorporated due to the high cost of the system.

The existing main switchgear distribution was replaced. Existing lighting fixtures, previously replaced under an energy management plan, were removed, stored, inventoried, relamped, and reinstalled. Energy management features occupancy sensors, daylighting and time clock control.



CONNECTICUT ARMY NATIONAL GUARD

Renovation of Classrooms in Four Armories

**Waterbury, CT
Branford, CT
Stratford, CT
Norwich, CT**

Services
Mechanical, Electrical
Engineering

Cost:
\$728,000

Completed
2023

Reference
Christopher Williams, AIA
Architect
85 Willow Street
New Haven, CT 06511
CWilliams@cwarchitects
llc.com
Phone: 203-776-0184

H.F. Lenz Company provided the Mechanical and Electrical Engineering Services for the renovation of classrooms and conference areas within four Connecticut Army National Guard Readiness Centers. The Readiness Centers are located in Branford, CT; Stratford, CT; Waterbury, CT; and Norwich, CT. The Branford and Waterbury Armories are on both Federal and State historical registers.

H.F. Lenz Company's services included:

- A/C split system to serve classroom space
- Specifications for protection/cleaning of remaining HVAC Systems
- Demolition and design of new lighting
- Addition of electrical and data wall receptacles
- New wireless access router
- AV system design, including projectors, screens, monitors, and head end equipment
- Review of ventilation within the space, provided recommendations and inclusion of upgrades
- Provided insulation of above ceiling piping
- Construction administration services.

The design was done in accordance with federal, state, and local laws, codes, ordinances, rules, regulations and other legal requirements of public authorities including the Connecticut Department of Energy and Environmental Protection and Army National Guard Facilities Design Guides.



CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES

Bridgeport Correctional Center Energy Audit Implementation Program

Bridgeport, CT

Services

Mechanical, Electrical,
Plumbing, Fire Protection

Square Footage

102,800

Completed

2023 Design
12/25 Construction

Cost

\$4 million

Reference

Brian Dillon
Deputy Director
Judicial Branch Facilities
860-706-5272
brian.dillon@jud.ct.gov

As a Task Order under an On-Call Contract H.F. Lenz Company provided MEP engineering services to implement Energy and Cost Reduction Measures (ECRMs) identified in a 2020 Energy Audit Report. The scope of the project included the New Center and Memorial Unit, accounting for 102,800 SF within the complex. The modifications and upgrades are intended to result in annual reductions of 482 metric tons of CO₂e emissions, \$161,067 in utility costs, and 7,446,000-gal of water usage.

Elements of the project included:

- Replacement of two existing steam boilers with high efficiency condensing hot water boilers
- Upgrade to high efficiency fan motors on heat-vent units and supply and return fans
- Design for new DDC building automation system to serve both buildings
- Design of a computerized water conservation system and integrate with building plumbing fixtures
- Design variable speed drives and demand control system on kitchen hood fans
- Replace domestic hot water heaters in Memorial Unit
- Replace water-cooled cooler compressors with air-cooled compressors
- Replace existing interior and exterior lighting with LED fixtures

A means for measuring and verifying the proposed savings and emissions reductions at 6,12, and 18 months after construction will be provided.

Design of the project is complete with construction to be determined by the facility's priority list.

Relevance to Contract: Sustainable building system design including energy, water, and GHG emissions.

TAB 5: SIGNATURE PAGES





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

State of West Virginia
Centralized Expression of Interest
Architect/Engr

Proc Folder: 1697941			Reason for Modification:
Doc Description: Camp Dawson RTI- Hot Water Repairs & Chiller Replacement			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
025-05-14	2025-06-03 13:30	CEOI 0603 ADJ2500000023	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
S

ENDOR

Vendor Customer Code: 000000159840

Vendor Name : H.F. Lenz Co.
Address : 1407
Street : Scalp Avenue
City : Johnstown
State : PA Country : United States Zip : 15904
Principal Contact : Thomas F. Deter, President
Vendor Contact Phone: 814-269-9300 Extension: 322

FOR INFORMATION CONTACT THE BUYER

David H Pauline
814-558-0067
david.h.pauline@wv.gov

Vendor Signature X  FEIN# 25-1007465 DATE: June 3, 2025

Offers subject to all terms and conditions contained in this solicitation

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Thomas F. Deter, President

(Address) 1407 Scalp Avenue

(Phone Number) / (Fax Number) 814-269-9322 / 814-269-9301

(email address) tdeter@hflenzenz.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

H.F. Lenz Co.

(Company) 

(Signature of Authorized Representative)
Thomas F. Deter, President

(Printed Name and Title of Authorized Representative) (Date)
814-269-9322 / 814-269-9301

(Phone Number) (Fax Number)
tdeter@hflenzenz.com

(Email Address)